100 LINE

PERFORMANCE SCONCE

GARDCO
LIGHTING

In five electrifying colors, the LED Circa sconce is a brilliant new way to unify the nighttime environment. Together with Circa area luminaires, the colorful LED rings reinforce corporate and retail brands, and dramatically delineate a site as no other family of luminaires can.

SCOPE

With the 100 Line, Gardco has changed the shape of the market along with its character. In this remarkable series, specifiers will find compact sconces that provide wide flexibility in high performance illumination and new opportunities to make an architectural statement. Sconce styles include various optic choices as well as soft glowing forms.

Noteworthy additions to the 100 Line include the distinctive Gullwing and Circa sconces. These luminaires are minimal in scale and, like all 100 Line sconces, offer exceptional glare-free optical performance. There is no need to compromise aesthetics for performance because Gullwing and Circa, like the GlowTop, can be paired with matching pole-mounted luminaires that elegantly unify the site lighting plan.

Gardco sconces. Once again, beautifully advancing the art and science of illumination.

111 – 101 – 141

With its tapered rectilinear form, this family immediately impresses with styling that integrates comfortably with a range of architectural elements. These luminaires provide full cutoff illumination free from the high angle brightness associated with refractor type products. There is also flexibility – three proportions mini to large. The 111, truly petite, is the obvious choice when lighting should be anything but obvious. The 141 Super Sconce is a powerful 400 watts strong.

	111	101	141
Height	5 3/8"	7"	9 5/8"
Width	12 1/8"	16 1/4"	24 1/8"
Depth	7"	9"	13 5/8"

102

The distinctive contoured wedge of the 102 establishes styling cues that prevail throughout the series – crisp, simple design and efficient scale. Overall dimensions for the series, including the distinctive offset created by the heat-dissipating mounting plate, measure just 9" deep by 16.25" wide by 8.25" high.

Height	8 1/4"
Width	16 1/4"
Depth	9"

103

Uplight of both trees and architecture serves to open and define the overhead environment. The 103 provides the opportunity to use four different up/down optical combinations to provide decorative uplighting on building surfaces combined with horizontal illumination for pedestrians or small parking areas. This luminaire provides cutoff at normal viewing angles.

Height 7"
Width 18"
Depth 9"

104

This half-round shape integrates naturally with architecture that features soft, rounded corners and forms. The 104 is the perfect companion for Gardco's Round Form 10 Series site lighting products.

Height 7"
Width 18"
Depth 9"

105

The soft glowing form of the 105 combines performance downlight illumination with soft uplight that offers identification of the luminaire in the nighttime environment. The 105 is available with 2 optic choices. The 105 can be used with the Gardco Glowtops to dramatically enhance site entrances.

Height $9\frac{1}{8}$"
Width 18"
Depth 9"

106

The classic shape of the 106 can add subtle styling to a variety of architectures. The 106 can also be used in tandem with the domed styles of the Gardco Round Form 10 family.

Height	$9^{1}/_{8}$"
Width	18"
Depth	9"

107

Performance takes on a new shape in the Gullwing sconce – the streamlined companion to the striking Gardco Gullwing series of area lighting luminaires. This sleek form, just 7.5" high, is a natural complement to any architectural vocabulary. The scale of the 107 allows it to match perfectly with the larger G18 or the smaller G13 Gullwing.

Height	$7^{1}/_{2}$"
Width	$21^{1}/_{4}$"
Depth	$11^{1}/_{2}$"

108 & 108 LED

Circa is the most revolutionary of the Gardco sconces. It introduces radical new design themes and color options, even colorful LED rings once available only on custom fixtures. Circa features a slim appearance accentuated by the standard halo ring. The accent ring can be painted to match or complement the luminaire, or finished in stainless steel. Like Gullwing, the Circa sconce is part of an integrated series that includes pole and post top mounted luminaires.

Height	$7^{1}/_{8}$"
Width	$25^{7}/_{16}$" (includes ring)
Depth	$12^{11}/_{16}$" (includes ring)

QUALITY

At every level, simple details make these sconces the very best available. It is an attention to detail that encompasses not only innovative uplight design, but every aspect of luminaire integrity and performance. In every luminaire, one finds seamless material transitions, true performance optics and thoughtful engineering considerate of installation, service and long term operation.

VERSATILITY

The notion that good things come in small packages is especially true of the Gardco Mini Sconce. A performance luminaire in every sense, the 111 Line combines high output and full cutoff illumination with design and construction worthy of landmark architecture.

Most importantly, this compact luminaire provides full cutoff illumination without the high angle brightness associated with refractor type products, making them an attractive choice for controlled illumination at points of entry.

The immediate popularity of Gardco sconces is in large part due to their architectural integrity. Sleek, stylish, ever in good taste, they are clearly superior to obtrusive, glaring wall packs.

Just as the Gardco 100 Line reinvented the sconce market under 250 watts, so too does the 141 redefine the high-output market. It does it thoughtfully, efficiently, practically, and as you expect from Gardco, economically. It is a universal solution to a universal problem, a welcome and long-awaited 400 watt source of illumination and inspiration.

CONSTRUCTION

The luminaire installs easily. Mounting plate is affixed to wall, splices are made and luminaire is secured to plate.

The diecast ribbed back plate dissipates heat from the electrical components.

Electrical components are mounted to the diecast back plate.

The diecast door frame is secured with two captive stainless steel fasteners and hinges for easy relamping.

The diecast housing is completely sealed at all points of material transition to thoroughly exclude moisture and insects.

While the architectural appeal of Gardco sconces is self-evident, equal attention has been devoted to the construction and long term performance of the luminaires. It is a quality that never goes out of style.

All Gardco sconce housings, door frames and back plates are precision diecast aluminum. The crafted housing forms are finished with a fade and abrasion resistant, electrostatically-applied, thermally cured, textured polyester powdercoat finish. The textured semi-gloss Gardco finish preserves the appearance of the luminaire through years of service. Standard color choices are bronze, beige, natural, black and white. Optional and special colors are available.

The single-piece diecast door frame fits flush to the housing. Gaskets seal the tempered lens to the door frame and the door frame to the housing, assuring weather tightness. Two captive stainless fasteners provide easy access for relamping and service.

Every Gardco sconce must pass a comprehensive battery of electrical tests before shipment. The luminaire's heat-dissipating fins are a noteworthy feature – integrated into the mounting plate – they cool electrical components within the compact sconce housing.

Outdoor Emergency Lighting

Emergency lighting has recently been the subject of increasing attention, which includes particularly more stringent code requirements. Most local ordinances require compliance with the NEC code and the Life Safety Code of the National Fire Protection Association. The 2000 NFPA Code specifies that "emergency lighting provided outside the building should be to either a public way or a distance from the building that is considered safe."

In addition to code mandates there are also numerous security, safety and liability issues that, in the event of a power interruption, need to be addressed via emergency lighting.

Most Gardco sconces can be specified to provide emergency lighting, and this series is designated with an EM or EMR suffix. These sconces are available with battery/emergency ballasted compact fluorescent lamps.

The important point of distinction between EM and EMR series is ballast location. The 100EM luminares utilize an integral emergency pack consisting of a high-temperature nickel-cadmium battery with charging and electronic circuitry on a protected circuit board. 100EMR sconces utilize remote emergency battery packs and electronic circuitry (which must be ordered separately with the luminaire or by others).

The 100EMR series should be utilized in applications with extreme ambient temperature conditions – especially freezing weather. When AC power fails, the sconces automatically convert to battery operation. A minimum of 90 minutes of lamp output is provided.

The indicator light and test switch are clearly visible through the lens. The door frame hinges for easy access to the test switch.

Sconce Emergency Highlights

- Electronic fluorescent ballasts are high power factor. Sockets are high temperature PBT with brass contacts.
- Operates lamps at minimum of 90 minutes at reduced light levels.
- Battery has 7-10 year life expectancy and requires no maintenance.
- Test switch accessible via easy-hinge door frame. Tamper-resistant hardware available.
- Configure for switched or unswitched normal mode circuits.
- Battery rated to 0°C ambient. For extreme temperatures, specify remote ballast models with EMR designation.

(See Pg. 35 for ordering information)

APPLICATIONS

Clean lines. Purity of form. Timeless styling. Clarity of purpose. Exceptional lighting performance. These were the inspiration, and remain the guiding principles in the design of a compelling series of sconces that are equal parts engineering, design and performance. With tapered forms and subtle twin edge reveals, these refreshingly compact sconces integrate seamlessly into virtually every application and budget.

Tucking a sconce into discrete locations adds a dramatic effect, improving security and making the building come alive at night.

The distinctive contoured wedge of the 111 is crisp and clean and a comfortable addition to almost any architectural design.

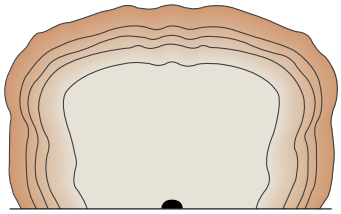
With its tapered shape, the Super Sconce delivers superior performance from a low profile luminaire.

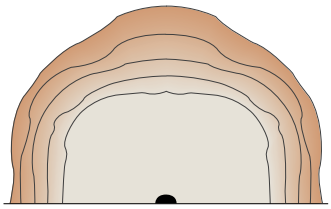
In addition to primary illumination, Gardco sconces are also an attractive solution for emergency lighting requirements.

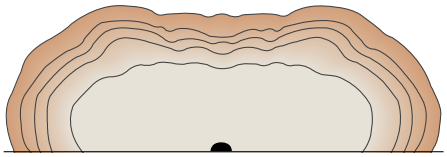
Full cutoff combined with high performance means fewer luminaires and complete elimination of light trespass... a welcome relief for neighbors and neighborhoods.

Combining standard downlight sconces with inverted sconces allows for the right amount of light in all the right places around the building.

PERFORMANCE





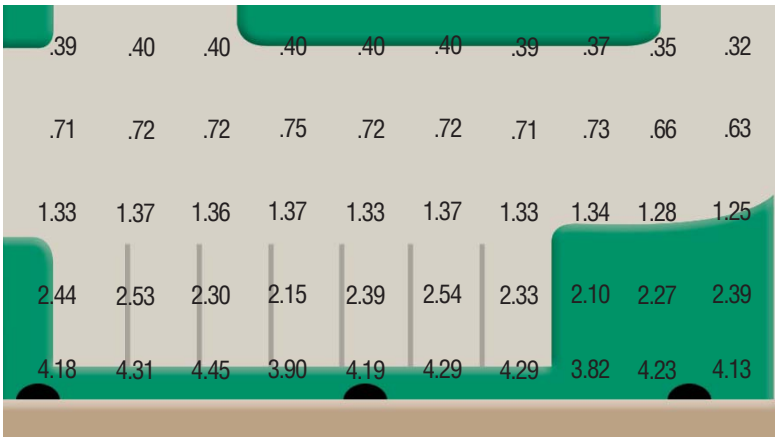


Optical systems feature highly specular faceted reflectors designed to direct light into desired patterns. A choice of three highly efficient downlight distributions are available.

Versatility – Gardco Sconces are available in a forward throw distribution for small parking areas, a wide distribution for pedestrian areas and an extremely low brightness medium distribution. The forward throw units are available with a 5° uptilt option (except 111 Mini Sconce) which extends the effective illumination pattern out and away from buildings. Medium throw units offer performance similar to interior downlights, allowing for illumination of interior spaces. All are suitable for damp location uplighting in lobbies, atriums and beneath canopies. An inverted Wet Location option is available with 101, 102 and 111 models.

High Light Levels – Optical systems feature highly specular faceted reflectors designed to efficiently direct light into very wide or forward projecting light patterns. In combination with the high lumen packages produced by HID lamps, Gardco 100 Line sconces provide remarkably high illumination levels. Fluorescent sources add instant-on capability.

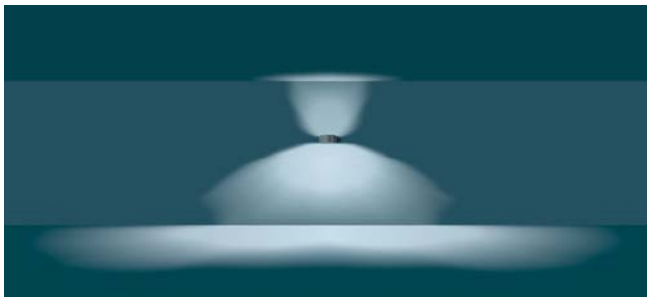
Uniform Distribution – Reflector facets are precisely positioned to generate uniform distribution patterns without streaks or striations. Superior area lighting is achieved when sites are illuminated to footcandle levels of 10-to-1 to 15-to1 maximum to minimum uniformity.



A typical site plan with footcandles superimposed illustrates not only high levels, but overall uniformity and cutoff at the perimeter of the distribution.

Spacings – Sconce spacings can be driven by aesthetics or economy, or a combination of both, a benefit unique to the Gardco 100 Line. For aesthetic purposes, the luminaire style and placement are selected first, followed by lamp and optical system selection. The sconce may satisfy primary or supplemental lighting requirements. When economy rules and wide spacings are required, the Gardco 100 Line offers 5:1 spacing to mounting height ratios with WT optics. At a 12' mounting height, sconces may be spaced as far as 60' apart. If critical light levels are required at the property line, FT optics with the optional 5° uptilt, project light in a more forward direction. See the application guidelines section starting on page 14 for approximate spacing capabilities.

Control of Glare & Light Trespass – The factor most destructive to lighting performance is glare. The traditional refractor wall pack generates light at excessively high angles – creating glare within a driver's or pedestrian's field of view. In addition, light above 90° may result in distracting brightness into neighboring spaces. Gardco performance sconces utilize precision optical systems which meet IES full cutoff criteria. This assures that light above 80° is minimized and light above 90° is eliminated – resulting in exceptional control of luminaire brightness and undesired illumination beyond the property line.

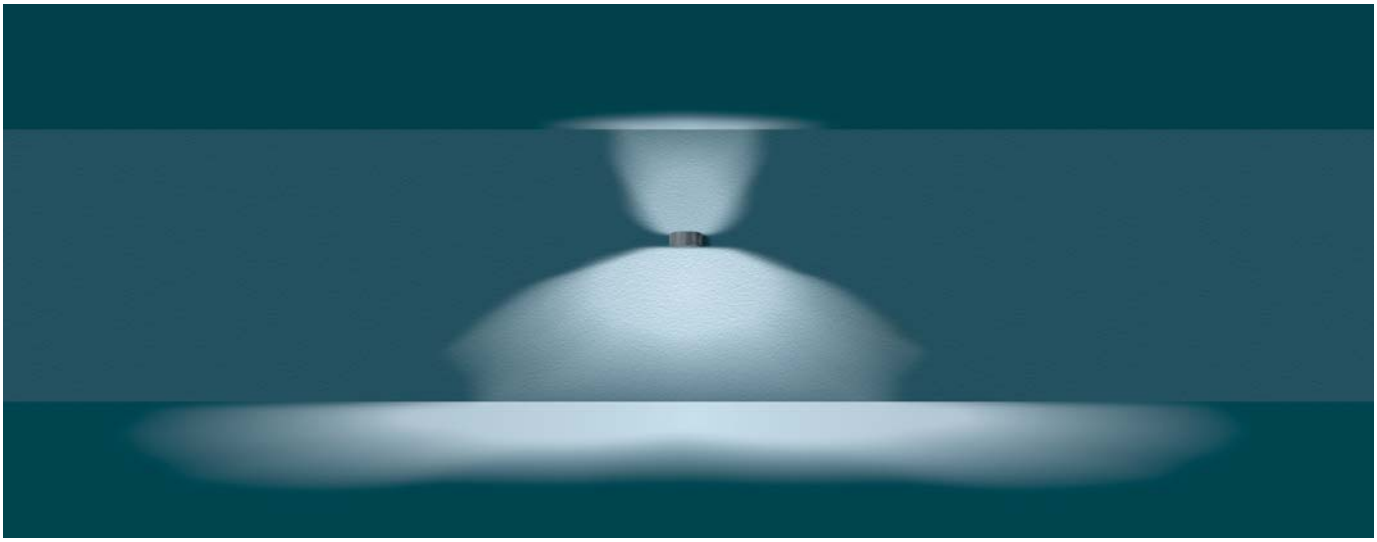


When economy rules and wide spacings are required, the Gardco 100 Line offers 5:1 spacing to mounting height ratios with WT optics. At a 12' mounting height, sconces may be spaced as far as 60' apart.

Gardco sconces provide full cutoff illumination with virtual elimination of source brightness.

Enhancement of the building facade as well as glare free illumination are all part of the sconce standard offering.

ILLUMINATION

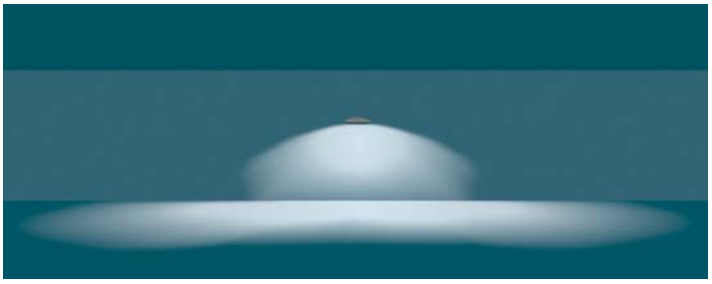


The wide choice in housing styles, optics and lamp combinations offers numerous options in balancing the illumination and aesthetic requirements of a project. The three-dimensional interpretation of typical performance presented here demonstrates the numerous up and downlighting choices, as well as the asymmetric distributions available with wide, medium, and forward throw optics.

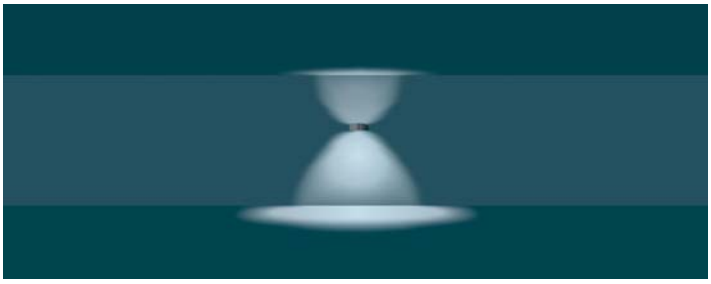
The pages which follow provide photometric information for the most popular optics and light sources. Three mounting heights and three luminaire spacing distances are included in each chart. Referencing the desired sconce and optics/lamp combination that will provide the distance of projection (DP) from the luminaire which yields .5, 1, 2 and 3 minimum maintained footcandles.

Further photometric information is available through your Gardco representative or our Applications Engineering Department.

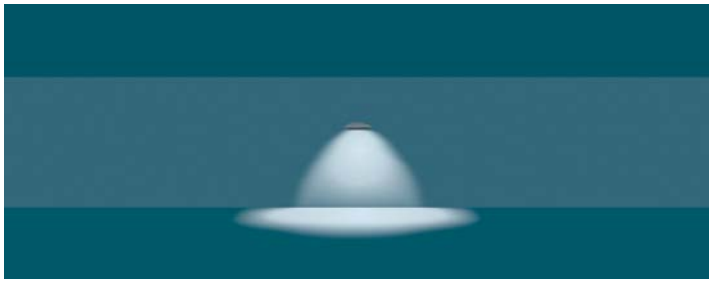
Wide Throw with Uplight WT-U
Excellent uniformity, cutoff and exceptionally wide downlight distribution with uplighting of the overhead environment. Uplight is 10% and downlight 90% of available lumens.



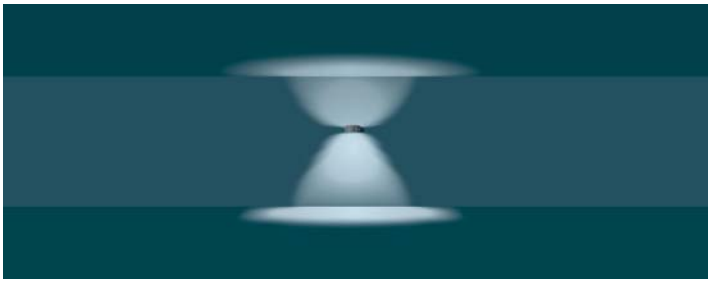
Wide Throw Downlight WT
With 100% of lamp output directed for downlight, the WT optics provide the widest, full cutoff distribution.



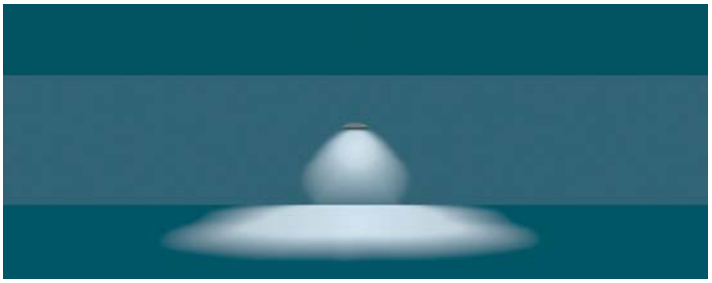
103 Medium Up/Downlight MT-U
With 10% uplight and 90% downlight, the MT-U provides high light levels in the down direction and subtle illumination overhead.



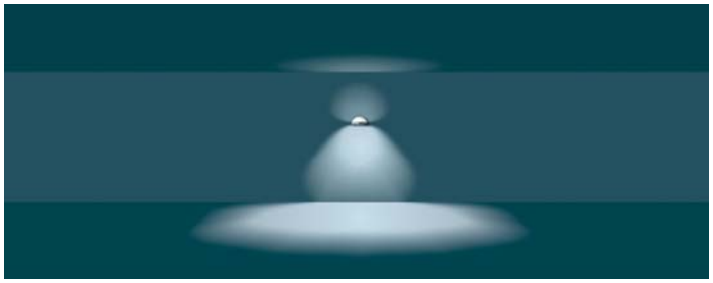
Medium Throw Downlight MT
Exceptionally uniform, this is the preferred optical choice when full cutoff, higher light levels and closer luminaire spacings are desired.



103 Medium 50/50 Up/Downlight UD
Available lumens are uniformly directed above and below the luminaire.

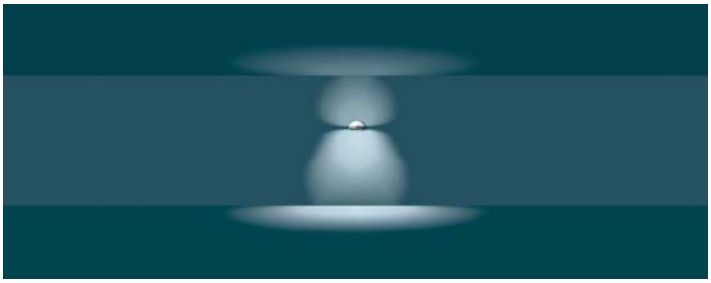


Forward Throw Downlight FT
High performance asymmetric distribution with full cutoff is ideal for directing illumination out and away from the building.



105 Forward Throw FT-U
A high performance asymmetric distribution has excellent forward illumination along with uniform uplight illumination.

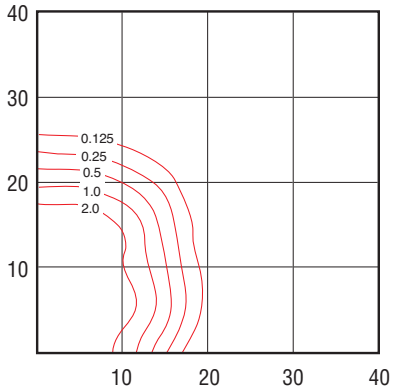
103 Forward Throw with Uplight FT-U
Asymmetric forward throw with 10% uplighting. Note illumination remains excellent even with addition of the uplight component.



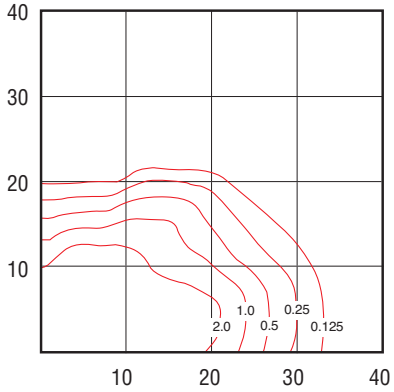
105 Up/Downlight UD
Exceptionally uniform, standard optical choice for a range of up and downlight applications. Note the exceptional uniformity throughout both distributions.

111 PERFORMANCE

Horizontal Isofootcandle Chart. (10' Mounting Height, Initial Lumens)



111-FT-70MH

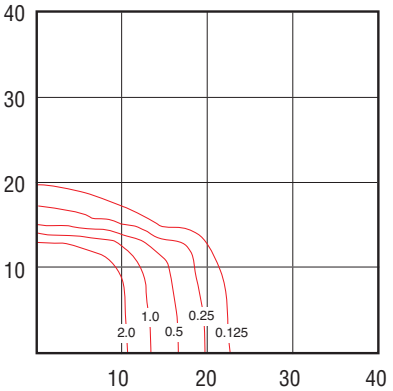


111-WT-70MH

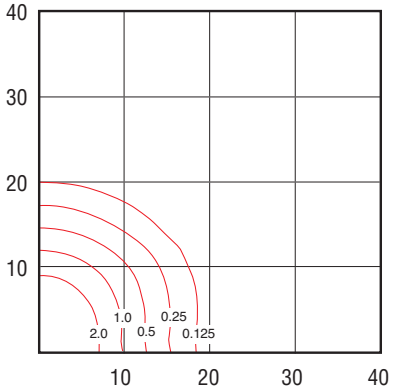
The table below gives conversion factors for various wattages:

Lamp Conversion Chart

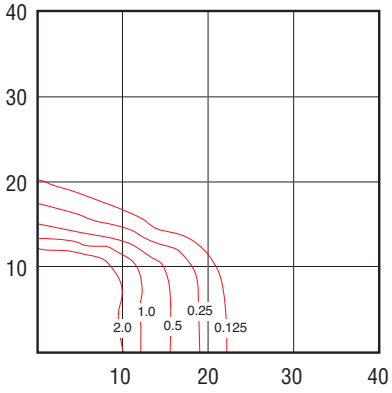
From	To	Factor
111-FT-70MH	111-FT-39MH	0.515
111-MT-70MH	111-MT-50MH	0.685
111-WT-70MH	111-WT-39MH	0.515
111-MT-70HPS	111-MT-50HPS	0.635
111-MT-70HPS	111-MT-35HPS	0.357
111-MT-42TRF	111-MT-32TRF	0.750
111-MT-42TRF	111-MT-26TRF	0.563



111-MT-70HPS

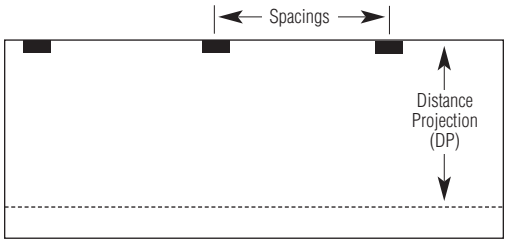


111-MT-42TRF



111-MT-70MH

101/102/107 WIDE THROW DISTRIBUTION



PLAN VIEW

Illumination Levels

- Initial lamp lumens for 175W MH = 12,800
  Initial lamp lumens for 150W HPS = 16,000
- Maintained Footcandles (maintenance factors: Metal Halide - 0.72, High Pressure Sodium - 0.80)
- Light levels assume 40% wall reflectance and contribution from adjacent luminaires

175MH – 12' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
24'	24'	6.11	**0.56**	13.18
	22'	6.61	**0.91**	13.18
	17'	8.10	**1.91**	13.18
	14'	9.21	**2.89**	13.18
30'	23'	5.09	**0.50**	11.54
	19'	5.97	**1.02**	11.54
	15'	7.06	**2.02**	11.54
	12'	8.01	**3.31**	11.54
36'	21'	4.59	**0.48**	10.32
	17'	5.41	**0.98**	10.32
	13'	6.41	**2.07**	10.32
	11'	6.94	**3.08**	10.32

175MH – 15' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
30'	28'	4.13	**0.55**	8.29
	23'	4.85	**0.99**	8.29
	17'	5.95	**2.14**	8.29
	14'	6.55	**3.16**	8.29
37.5'	26'	3.53	**0.48**	7.26
	20'	4.30	**1.07**	7.26
	15'	5.08	**2.09**	7.26
	12'	5.54	**3.09**	7.26
45'	23'	3.24	**0.49**	6.47
	18'	3.84	**1.02**	6.47
	13'	4.50	**2.19**	6.47
	10'	4.82	**3.04**	6.47

175MH – 18' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
36'	31'	3.06	**0.50**	5.77
	23'	3.82	**1.10**	5.77
	17'	4.50	**2.11**	5.77
	13'	4.91	**3.70**	5.77
45'	27'	2.73	**0.53**	5.03
	22'	3.14	**0.94**	5.03
	15'	3.77	**1.88**	5.03
	10'	4.09	**2.93**	5.03
54'	24'	2.48	**0.52**	4.49
	18'	2.93	**1.06**	4.49
	12'	3.33	**2.07**	4.49

150HPS – 12' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
24'	27'	7.19	**0.49**	17.1
	24'	8.26	**0.95**	17.1
	20'	9.51	**2.24**	17.1
	17'	10.7	**3.17**	17.1
30'	27'	5.81	**0.48**	15.4
	23'	6.68	**0.98**	15.4
	18'	8.32	**2.05**	15.4
	15'	9.35	**3.06**	15.4
36'	25'	5.25	**0.50**	14.2
	21'	6.06	**1.00**	14.2
	16'	7.58	**2.15**	14.2
	14'	8.20	**2.96**	14.2

150HPS – 15' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
30'	31'	5.03	**0.49**	11.3
	27'	5.65	**1.04**	11.3
	21'	6.78	**2.03**	11.3
	17'	7.91	**3.04**	11.3
37.5'	30'	4.21	**0.51**	10.2
	25'	4.73	**0.99**	10.2
	18'	6.04	**2.12**	10.2
	15'	6.65	**3.01**	10.2
45'	28'	3.76	**0.50**	9.30
	23'	4.24	**0.96**	9.30
	17'	5.27	**2.03**	9.30
	12'	6.14	**3.18**	9.30

150HPS – 18' Mounting Height

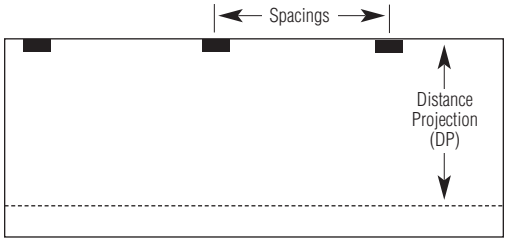
Spacing	Distance Projection	Average	Minimum	Maximum
36'	35'	3.75	**0.47**	8.08
	29'	4.35	**1.04**	8.08
	21'	5.38	**1.99**	8.08
	16'	6.27	**3.16**	8.08
45'	33'	3.10	**0.50**	7.29
	26'	3.78	**0.98**	7.29
	19'	4.58	**1.93**	7.29
	13'	5.32	**3.16**	7.29
54'	30'	2.80	**0.51**	6.68
	23'	3.29	**1.05**	6.68
	15'	4.15	**2.04**	6.68

101/102/104/106/107/108 FORWARD THROW DISTRIBUTION




Illumination Levels

- Initial lamp lumens for 175W MH = 12,800
  Initial lamp lumens for 150W HPS = 16,000
- Maintained Footcandles (maintenance factors:
  Metal Halide - 0.72, High Pressure Sodium - 0.80)
- Light levels assume 40% wall reflectance and
  contribution from adjacent luminaires



PLAN VIEW

175MH – 12' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
12'	26'	9.58	**0.59**	20.42
	24'	10.32	**0.96**	20.42
	21'	11.60	**2.27**	20.42
	20'	12.06	**3.11**	20.42
18'	25'	6.64	**0.51**	16.94
	22'	7.45	**1.07**	16.94
	20'	8.05	**1.92**	16.94
	18'	8.36	**3.51**	16.94
24'	24'	5.17	**0.47**	16.08
	21'	5.81	**1.12**	16.08
	19'	6.27	**2.01**	16.08

175MH – 15' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
15'	31'	6.39	**0.51**	12.62
	28'	7.01	**0.95**	12.62
	25'	7.69	**1.97**	12.62
	23'	8.16	**3.16**	12.62
22.5'	29'	4.53	**0.49**	10.51
	26'	4.98	**0.94**	10.51
	23'	5.45	**1.95**	10.51
30'	28'	3.51	**0.47**	9.90
	25'	3.85	**0.96**	9.90

175MH – 18' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
18'	35'	4.68	**0.50**	8.99
	32'	5.06	**0.90**	8.99
	28'	5.60	**2.02**	8.99
	26'	5.85	**2.92**	8.99
27'	33'	3.29	**0.48**	7.46
	29'	3.65	**1.03**	7.46
	25'	3.98	**1.82**	7.46
36'	31'	2.61	**0.55**	7.05
	28'	2.80	**0.97**	7.05

150HPS – 12' Mounting Height

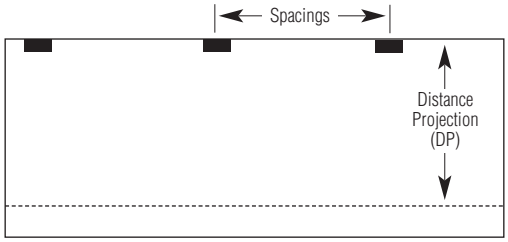
Spacing	Distance Projection	Average	Minimum	Maximum
12'	29'	12.9	**0.48**	26.8
	26'	14.3	**0.95**	26.8
	23'	15.9	**2.46**	26.8
	22'	16.4	**3.49**	26.8
18'	27'	9.25	**0.49**	21.9
	24'	10.2	**1.13**	21.9
	22'	11.0	**2.23**	21.9
	21'	11.5	**3.11**	21.9
24'	26'	7.39	**0.46**	20.7
	23'	8.26	**1.21**	20.7
	21'	8.89	**2.45**	20.7
	20'	9.12	**3.35**	20.7

150HPS – 15' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
15'	33'	9.07	**0.54**	17.1
	30'	9.84	**1.10**	17.1
	28'	10.4	**1.90**	17.1
	26'	11.0	**3.31**	17.1
22.5'	31'	6.31	**0.56**	14.1
	29'	6.69	**0.94**	14.1
	26'	7.25	**2.09**	14.1
	24'	7.63	**3.40**	14.1
30'	30'	4.81	**0.52**	13.3
	28'	5.10	**0.92**	13.3
	25'	5.59	**2.10**	13.3

150HPS – 18' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
18'	38'	6.55	**0.49**	11.9
	35'	7.06	**0.93**	11.9
	32'	7.55	**1.91**	11.9
	30'	7.90	**2.95**	11.9
27'	36'	4.61	**0.49**	9.74
	33'	4.98	**0.95**	9.74
	29'	5.47	**2.26**	9.74
	27'	5.68	**3.21**	9.74
36'	34'	3.60	**0.58**	9.18
	31'	3.89	**1.17**	9.18



PLAN VIEW

Illumination Levels

- Initial lamp lumens for (2) 26W Fluorescent = 3,600
  Initial lamp lumens for 42W Fluorescent = 3,200
- Maintained Footcandles (maintenance factors: Fluorescent - 0.90)
- Light levels assume 40% wall reflectance and contribution from adjacent luminaires

(2) 26W Fluorescent – 10' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
10'	13'	4.91	**0.53**	8.30
	12'	5.24	**0.97**	8.30
	10'	5.96	**2.41**	8.30
	9'	3.25	**3.25**	8.30
15'	12'	3.54	**0.57**	6.82
	11'	3.78	**0.96**	6.82
	9'	4.26	**1.91**	6.82
	6'	4.92	**3.16**	6.82
20'	10'	2.98	**0.62**	6.67
	8'	3.32	**1.11**	6.67

(2) 26W Fluorescent – 12' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
12'	15'	3.53	**0.49**	5.77
	13'	3.94	**1.19**	5.77
	11'	4.36	**2.15**	5.77
	9'	4.74	**3.01**	5.77
18'	14'	2.51	**0.48**	4.70
	12'	2.80	**1.00**	4.70
	8'	3.32	**1.97**	4.70
24'	11'	2.24	**0.57**	4.63
	8'	2.53	**0.98**	4.63

(2) 26W Fluorescent – 15' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
15'	17'	2.44	**0.58**	3.75
	15'	2.66	**1.04**	3.75
	11'	3.06	**1.95**	3.75
	7'	3.43	**2.87**	3.75
22.5'	16'	1.70	**0.48**	3.02
	12'	1.97	**1.02**	3.02
30'	11'	1.53	**0.55**	2.97

42W Fluorescent – 10' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
10'	15'	6.77	**0.45**	12.3
	13'	7.65	**1.20**	12.3
	11'	8.66	**2.67**	12.3
	10'	9.20	**3.68**	12.3
15'	14'	4.78	**0.48**	10.7
	12'	5.41	**1.19**	10.7
	10'	6.12	**2.28**	10.7
	9'	6.47	**2.96**	10.7
20'	12'	4.07	**0.60**	10.5
	10'	4.60	**1.10**	10.5

42W Fluorescent – 12' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
12'	17'	4.95	**0.47**	8.56
	15'	5.50	**1.02**	8.56
	13'	6.10	**1.94**	8.56
	11'	6.73	**3.19**	8.56
18'	16'	3.52	**0.45**	7.45
	14'	3.91	**0.93**	7.45
	11'	4.55	**1.94**	7.45
	9'	4.96	**2.85**	7.45
24'	14'	2.98	**0.46**	7.34
	11'	3.46	**0.97**	7.34

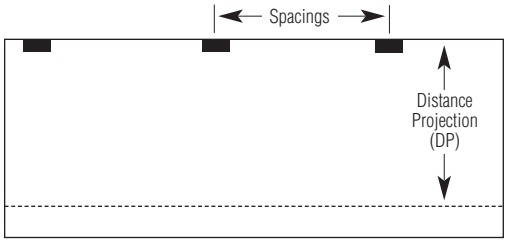
42W Fluorescent – 15' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
15'	19'	3.48	**0.58**	5.57
	17'	3.78	**1.03**	5.57
	14'	4.27	**1.93**	5.57
	11'	4.73	**3.23**	5.57
22.5'	18'	2.41	**0.51**	4.79
	15'	2.73	**1.00**	4.79
	10'	3.23	**2.11**	4.79
30'	15'	2.05	**0.47**	4.71

103 MEDIUM THROW DISTRIBUTION

Illumination Levels

- Initial lamp lumens for (2) 26W Fluorescent = 3,600
  Initial lamp lumens for 42W Fluorescent = 3,200
- Maintained Footcandles (maintenance factors: Fluorescent - 0.90)
- Light levels assume 40% wall reflectance and contribution from adjacent luminaires



PLAN VIEW

(2) 26W Fluorescent – 10' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
10'	12'	3.88	**0.58**	6.30
	11'	4.15	**1.06**	6.30
	9'	4.69	**2.48**	6.30
	8'	4.93	**3.02**	6.30
15'	11'	2.81	**0.63**	4.94
	10'	3.00	**1.03**	4.94
	7'	3.49	**2.13**	4.94
20'	10'	2.22	**0.47**	4.75
	7'	2.58	**1.11**	4.75

(2) 26W Fluorescent – 12' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
12'	14'	2.79	**0.49**	4.38
	12'	3.12	**1.23**	4.38
	10'	3.42	**2.00**	4.38
	7'	3.83	**2.90**	4.38
18'	13'	1.96	**0.47**	3.38
	10'	2.27	**1.16**	3.38
	6'	2.63	**2.01**	3.38
24'	11'	1.68	**0.46**	3.31
	6'	2.02	**1.04**	3.31

(2) 26W Fluorescent – 15' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
15'	16'	1.92	**0.54**	2.86
	14'	2.08	**0.98**	2.86
	8'	2.51	**1.98**	2.86
22.5'	14'	1.39	**0.58**	2.19
	10'	1.58	**1.01**	2.19
30'	10'	1.18	**0.49**	2.13

42W Fluorescent – 10' Mounting Height

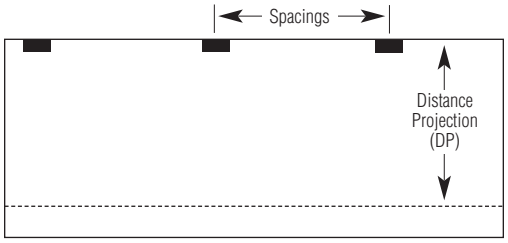
Spacing	Distance Projection	Average	Minimum	Maximum
10'	12'	3.40	**0.56**	5.31
	10'	3.89	**1.25**	5.31
	8'	4.40	**2.51**	5.31
	7'	4.62	**3.30**	5.31
15'	11'	2.43	**0.57**	4.33
	9'	2.77	**1.21**	4.33
	7'	3.08	**2.13**	4.33
20'	10'	1.95	**0.45**	4.20
	7'	2.31	**1.03**	4.20

42W Fluorescent – 12' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
12'	14'	2.43	**0.45**	3.69
	11'	2.87	**1.17**	3.69
	9'	3.16	**2.01**	3.69
	7'	3.37	**2.94**	3.69
18'	13'	1.72	**0.42**	2.98
	10'	2.02	**1.01**	2.98
24'	10'	1.54	**0.59**	2.92

42W Fluorescent – 15' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
15'	15'	1.75	**0.54**	2.40
	12'	1.98	**1.09**	2.40
	8'	2.19	**2.01**	2.40
22.5'	14'	1.21	**0.47**	1.92
	10'	1.40	**1.02**	1.92
30'	11'	1.02	**0.44**	1.88



PLAN VIEW

Illumination Levels

- Initial lamp lumens for 175W MH = 12,800
  Initial lamp lumens for 150W HPS = 16,000
- Maintained Footcandles (maintenance factors: Metal Halide - 0.72, High Pressure Sodium - 0.80)
- Light levels assume 40% wall reflectance and contribution from adjacent luminaires

175MH – 12' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
12'	17'	12.96	**0.50**	29.03
	14'	15.59	**1.43**	29.03
	13'	16.67	**2.41**	29.03
	12'	17.85	**4.12**	29.03
18'	15'	9.75	**0.55**	21.83
	13'	11.12	**1.43**	21.83
	12'	11.91	**2.49**	21.83
	11'	12.72	**3.90**	21.83
24'	13'	8.34	**0.65**	21.71
	11'	9.54	**1.63**	21.71
	10'	10.12	**2.57**	21.71
	9'	10.61	**3.17**	21.71

175MH – 15' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
15'	19'	9.17	**0.52**	18.34
	17'	10.17	**1.09**	18.34
	15'	11.33	**2.56**	18.34
	14'	11.94	**3.63**	18.34
22.5'	17'	6.44	**0.66**	13.82
	15'	6.78	**1.55**	13.82
	14'	7.56	**2.22**	13.82
	13'	7.97	**3.07**	13.82
30'	15'	5.67	**0.64**	13.74
	14'	5.98	**0.93**	13.74
	11'	6.79	**2.06**	13.74

175MH – 18' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
18'	21'	6.84	**0.60**	12.71
	19'	7.48	**1.22**	12.71
	17'	8.18	**2.31**	12.71
	16'	8.53	**3.24**	12.71
27'	20'	4.77	**0.52**	9.49
	18'	5.22	**1.06**	9.49
	16'	5.69	**1.91**	9.49
	13'	6.28	**3.23**	9.49
36'	17'	4.09	**0.59**	9.44
	15'	4.43	**1.10**	9.44

150HPS – 12' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
12'	14'	11.56	**0.49**	27.07
	11'	14.52	**1.64**	27.07
	10'	15.78	**5.15**	27.07
18'	12'	8.93	**0.57**	19.64
	11'	9.69	**1.02**	19.64
	10'	10.53	**3.29**	19.64
	9'	11.29	**5.52**	19.64
24'	11'	7.27	**0.67**	19.80
	10'	7.90	**1.46**	19.48
	9'	8.47	**2.53**	19.48
	8'	8.99	**3.02**	19.48

150HPS – 15' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
15'	15'	8.47	**0.57**	17.15
	14'	9.03	**0.72**	17.15
	13'	9.66	**1.86**	17.15
	12'	10.28	**4.14**	17.15
22.5'	14'	6.03	**0.49**	12.40
	13'	6.44	**1.20**	12.40
	11'	7.22	**3.58**	12.40
	10'	7.57	**4.17**	12.40
30'	13'	4.83	**0.66**	12.29
	12'	5.14	**1.16**	12.29
	9'	5.94	**2.14**	12.29

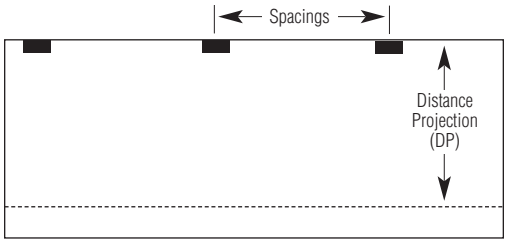
150HPS – 18' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
18'	17'	6.16	**0.47**	11.91
	16'	6.51	**0.99**	11.91
	15'	6.87	**1.95**	11.91
	14'	7.21	**3.20**	11.91
27'	16'	4.34	**0.62**	8.53
	15'	4.58	**1.28**	8.53
	14'	4.81	**2.00**	8.53
	11'	5.41	**3.30**	8.53
36'	15'	3.44	**0.60**	8.46
	13'	3.76	**1.24**	8.46

104/106/108 WIDE THROW DISTRIBUTION

Illumination Levels

- Initial lamp lumens for 175W MH = 12,800
  Initial lamp lumens for 150W HPS = 16,000
- Maintained Footcandles (maintenance factors:
  Metal Halide - 0.72, High Pressure Sodium - 0.80)
- Light levels assume 40% wall reflectance and
  contribution from adjacent luminaires



PLAN VIEW

175MH – 12' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
24'	22'	5.82	**0.53**	12.51
	19'	6.61	**0.99**	12.51
	15'	7.87	**2.18**	12.51
	13'	8.59	**3.12**	12.51
30'	20'	5.07	**0.50**	11.28
	16'	6.02	**1.14**	11.28
	13'	6.87	**2.19**	11.28
	11'	7.45	**3.29**	11.28
36'	19'	4.41	**0.51**	10.17
	15'	5.25	**1.14**	10.17
	12'	5.97	**2.17**	10.17

175MH – 15' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
30'	25'	4.02	**0.52**	7.87
	21'	4.62	**0.96**	7.87
	16'	5.50	**2.02**	7.87
	13'	6.04	**3.11**	7.87
37.5'	22'	3.57	**0.53**	7.12
	18'	4.11	**1.02**	7.12
	14'	4.69	**1.96**	7.12
	11'	5.09	**3.05**	7.12
45'	21'	3.08	**0.49**	6.38
	17'	3.54	**0.97**	6.38
	13'	4.03	**1.94**	6.38

175MH – 18' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
36'	27'	3.03	**0.53**	5.45
	22'	3.50	**1.01**	5.45
	16'	4.13	**2.00**	5.45
	12'	4.48	**3.00**	5.45
45'	24'	2.64	**0.50**	4.89
	19'	3.06	**1.01**	4.89
	13'	3.53	**2.13**	4.89
	8'	3.73	**3.06**	4.89
54'	22'	2.34	**0.52**	4.41
	17'	2.69	**1.04**	4.41
	10'	3.07	**1.98**	4.41

150HPS – 12' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
24'	25'	7.41	**0.48**	18.1
	22'	8.58	**0.99**	18.1
	18'	10.1	**2.25**	18.1
	16'	11.0	**3.20**	18.1
30'	23'	6.44	**0.47**	15.1
	19'	7.83	**1.09**	15.1
	16'	8.86	**2.04**	15.1
	14'	9.62	**3.00**	15.1
36'	21'	5.86	**0.58**	13.4
	18'	6.87	**1.12**	13.4
	15'	7.78	**2.03**	13.4
	13'	8.44	**2.94**	13.4

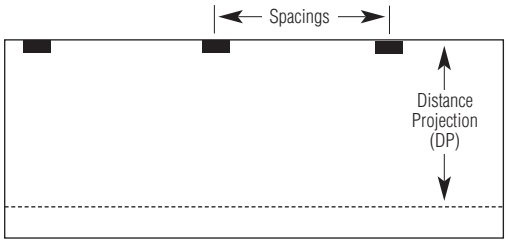
150HPS – 15' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
30'	28'	5.47	**0.55**	11.6
	24'	6.20	**1.10**	11.6
	20'	7.06	**2.00**	11.6
	16'	8.12	**3.19**	11.6
37.5'	25'	4.60	**0.56**	10.0
	21'	5.26	**1.10**	10.0
	17'	6.19	**2.06**	10.0
	14'	6.83	**3.23**	10.0
45'	24'	4.11	**0.54**	8.85
	20'	4.69	**1.08**	8.85
	16'	5.39	**1.95**	8.85
	12'	6.10	**3.03**	8.85

150HPS – 18' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
36'	32'	4.02	**0.48**	8.58
	26'	4.72	**1.09**	8.58
	20'	5.57	**2.07**	8.58
	16'	6.25	**3.01**	8.58
45'	28'	3.51	**0.52**	7.17
	23'	3.97	**1.03**	7.17
	18'	4.66	**1.92**	7.17
	12'	5.39	**3.19**	7.17
54'	27'	2.89	**0.48**	6.39
	21'	3.43	**1.08**	6.39
	15'	4.11	**1.96**	6.39

104/106/108 MEDIUM THROW DISTRIBUTION



PLAN VIEW

Illumination Levels

- Initial lamp lumens for (2) 26W Fluorescent = 3,600
  Initial lamp lumens for 42W Fluorescent = 3,200
- Maintained Footcandles (maintenance factors: Fluorescent - 0.90)
- Light levels assume 40% wall reflectance and contribution from adjacent luminaires

(2) 26W Fluorescent – 10' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
10'	12'	4.82	**0.65**	7.86
	11'	5.17	**1.21**	7.86
	10'	5.53	**2.03**	7.86
	9'	5.87	**2.93**	7.86
15'	12'	3.27	**0.40**	6.31
	10'	3.74	**1.15**	6.31
	8'	4.19	**2.09**	6.31
	6'	4.60	**2.92**	6.31
20'	10'	2.76	**0.51**	6.12
	8'	3.10	**0.99**	6.12

(2) 26W Fluorescent – 12' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
12'	14'	3.45	**0.55**	5.51
	13'	3.66	**0.90**	5.51
	11'	4.07	**1.93**	5.51
	9'	4.45	**2.86**	5.51
18'	13'	2.46	**0.52**	4.38
	11'	2.74	**1.06**	4.38
	7'	3.23	**2.07**	4.38
24'	11'	2.09	**0.49**	4.31
	7'	2.46	**1.01**	4.31

(2) 26W Fluorescent – 15' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
15'	17'	2.26	**0.42**	3.58
	14'	2.58	**1.14**	3.58
	10'	2.96	**2.04**	3.58
	6'	3.29	**2.92**	3.58
22.5'	15'	1.65	**0.50**	2.83
	11'	1.91	**1.04**	2.83
30'	11'	1.43	**0.49**	2.77

42W Fluorescent – 10' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
10'	14'	5.97	**0.47**	10.3
	12'	6.79	**1.19**	10.3
	10'	7.73	**2.65**	10.3
	9'	8.22	**3.65**	10.3
15'	13'	4.30	**0.48**	8.82
	11'	4.90	**1.19**	8.82
	9'	5.55	**2.27**	8.82
	8'	5.87	**2.97**	8.82
20'	11'	3.63	**0.57**	8.60
	9'	4.12	**1.16**	8.60

42W Fluorescent – 12' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
12'	16'	4.35	**0.44**	7.15
	14'	4.85	**0.95**	7.15
	12'	5.40	**1.83**	7.15
	10'	5.97	**3.04**	7.15
18'	15'	3.07	**0.42**	6.09
	12'	3.62	**1.16**	6.09
	9'	4.19	**2.31**	6.09
24'	13'	2.62	**0.43**	5.97
	10'	3.05	**1.00**	5.97

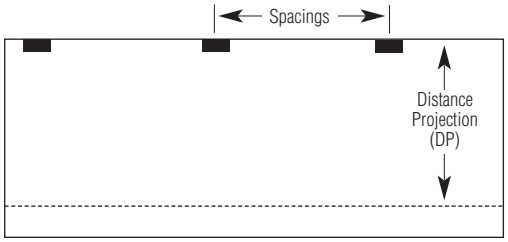
42W Fluorescent – 15' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
15'	18'	3.04	**0.51**	4.63
	15'	3.47	**1.14**	4.63
	12'	3.91	**2.09**	4.63
	10'	4.17	**2.94**	4.63
22.5'	17'	2.11	**0.46**	3.91
	13'	2.50	**1.09**	3.91
30'	13'	1.88	**0.55**	3.83

105 GLOW/FORWARD THROW DISTRIBUTION

Illumination Levels

- Initial lamp lumens for 150W MH = 12,500
  Initial lamp lumens for 150W HPS = 16,000
- Maintained Footcandles (maintenance factors:
  Metal Halide - 0.72, High Pressure Sodium - 0.80)
- Light levels assume 40% wall reflectance and
  contribution from adjacent luminaires



PLAN VIEW

150MH – 12' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
12'	26'	9.51	**0.48**	18.65
	23'	10.66	**1.14**	18.65
	21'	11.54	**2.19**	18.65
	20'	12.00	**2.85**	18.65
18'	24'	6.85	**0.55**	14.94
	22'	7.41	**0.99**	14.94
	19'	8.33	**2.19**	14.94
	17'	8.98	**3.58**	14.94
24'	23'	5.34	**0.58**	14.14
	21'	5.78	**1.09**	14.14
	18'	6.50	**2.22**	14.14

150MH – 15' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
15'	30'	6.54	**0.55**	11.81
	27'	7.18	**1.16**	11.81
	24'	7.89	**2.18**	11.81
	22'	8.38	**3.20**	11.81
22.5'	28'	4.65	**0.56**	9.61
	25'	5.11	**1.09**	9.61
	21'	5.76	**2.38**	9.61
	19'	6.05	**2.98**	9.61
30'	27'	3.60	**0.58**	9.01
	24'	3.95	**1.07**	9.01

150MH – 18' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
18'	34'	4.77	**0.57**	8.14
	31'	5.16	**1.05**	8.14
	27'	5.72	**2.00**	8.14
	24'	6.13	**3.40**	8.14
27'	32'	3.36	**0.53**	6.60
	28'	3.72	**1.04**	6.60
	24'	4.09	**2.02**	6.60
36'	31'	2.59	**0.52**	6.22
	27'	2.94	**0.97**	6.22

150HPS – 12' Mounting Height

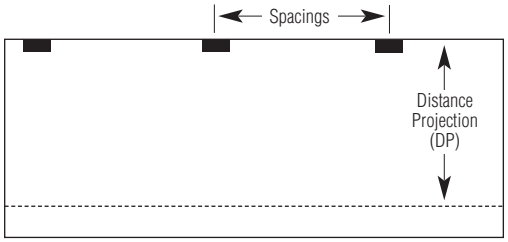
Spacing	Distance Projection	Average	Minimum	Maximum
12'	29'	12.9	**0.56**	24.8
	26'	14.3	**1.20**	24.8
	24'	15.3	**2.31**	24.8
	23'	15.9	**3.26**	24.8
18'	27'	9.22	**0.58**	19.6
	25'	9.88	**1.05**	19.6
	23'	10.6	**2.05**	19.6
	22'	10.9	**2.86**	19.6
24'	26'	7.31	**0.57**	18.3
	24'	7.82	**1.13**	18.3
	22'	8.37	**2.25**	18.3
	21'	8.70	**3.10**	18.3

150HPS – 15' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
15'	34'	8.85	**0.53**	15.9
	31'	9.61	**1.11**	15.9
	29'	10.2	**1.92**	15.9
	27'	10.7	**3.23**	15.9
22.5'	32'	6.24	**0.54**	12.6
	29'	6.80	**1.21**	12.6
	27'	7.19	**2.02**	12.6
	25'	7.57	**3.28**	12.6
30'	31'	4.89	**0.55**	11.8
	28'	5.31	**1.23**	11.8
	26'	5.60	**2.08**	11.8
	24'	5.86	**3.07**	11.8

150HPS – 18' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
18'	39'	6.32	**0.50**	11.0
	36'	6.86	**1.00**	11.0
	33'	7.25	**1.94**	11.0
	31'	7.60	**2.94**	11.0
27'	37'	4.43	**0.51**	8.75
	34'	4.75	**1.00**	8.75
	30'	5.16	**2.26**	8.75
	28'	5.39	**3.12**	8.75
36'	36'	3.46	**0.50**	8.18
	33'	3.71	**0.97**	8.18
	29'	4.08	**2.09**	8.18



PLAN VIEW

Illumination Levels

- Initial lamp lumens for 150W MH = 12,500
  Initial lamp lumens for 150W HPS = 16,000
- Maintained Footcandles (maintenance factors: Metal Halide - 0.72, High Pressure Sodium - 0.80)
- Light levels assume 40% wall reflectance and contribution from adjacent luminaires

150MH – 12' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
12'	17'	12.18	**0.48**	25.36
	14'	14.65	**1.10**	25.36
	13'	15.69	**1.76**	25.36
	12'	15.69	**3.29**	25.36
18'	15'	9.16	**0.48**	20.07
	13'	10.47	**1.14**	20.07
	12'	11.23	**2.19**	20.07
	11'	12.03	**3.69**	20.07
24'	13'	7.85	**0.54**	19.93
	11'	9.03	**1.65**	19.93
	10'	9.59	**2.61**	19.93
	9'	10.04	**3.43**	19.93

150MH – 15' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
15'	18'	9.06	**0.57**	16.04
	16'	10.10	**1.22**	16.04
	15'	10.69	**1.99**	16.04
	14'	10.28	**4.14**	16.04
22.5'	17'	6.38	**0.52**	12.64
	15'	7.13	**1.35**	12.64
	14'	7.54	**2.04**	12.64
	13'	7.93	**3.09**	12.64
30'	15'	5.35	**0.53**	12.55
	13'	5.95	**1.39**	12.55
	11'	6.42	**2.28**	12.55

150MH – 18' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
18'	20'	6.73	**0.61**	11.14
	18'	7.39	**1.34**	11.14
	17'	7.73	**2.06**	11.14
	16'	8.08	**2.97**	11.14
27'	19'	4.70	**0.59**	8.62
	17'	5.16	**1.30**	8.62
	15'	5.60	**2.49**	8.62
	13'	5.94	**3.30**	8.62
36'	17'	3.87	**0.57**	8.55
	15'	4.20	**1.13**	8.55

150HPS – 12' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
12'	25'	3.97	**0.51**	14.0
	17'	5.79	**0.96**	14.0
	12'	7.52	**2.04**	14.0
	10'	8.47	**3.12**	14.0
18'	18'	3.63	**0.54**	11.2
	13'	4.68	**1.04**	11.2
	9'	5.94	**2.34**	11.2
	7'	6.71	**3.44**	11.2
24'	17'	3.01	**0.48**	10.7
	11'	4.16	**1.02**	10.7
	7'	5.29	**1.97**	10.7

150HPS – 15' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
15'	23'	3.31	**0.52**	9.21
	16'	4.62	**1.07**	9.21
	12'	5.60	**2.14**	9.21
	10'	6.18	**3.03**	9.21
22.5'	19'	2.72	**0.49**	7.33
	14'	3.40	**0.99**	7.33
	9'	4.35	**2.20**	7.33
	6'	4.97	**3.12**	7.33
30'	14'	2.45	**0.54**	6.99
	9'	3.13	**1.06**	6.99

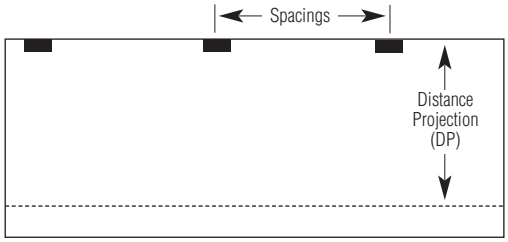
150HPS – 18' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
18'	22'	2.87	**0.51**	6.28
	17'	3.45	**0.98**	6.28
	12'	4.25	**2.09**	6.28
	9'	4.79	**3.08**	6.28
27'	18'	2.23	**0.52**	5.19
	13'	2.74	**1.04**	5.19
	7'	3.46	**2.01**	5.19
36'	15'	1.92	**0.49**	4.96
	8'	2.54	**1.01**	4.96

105 GLOW/DOWNLIGHT DISTRIBUTION

Illumination Levels

- Initial lamp lumens for 42W Fluorescent = 3,200
- Maintained Footcandles (maintenance factors: Fluorescent - 0.90)
- Light levels assume 40% wall reflectance and contribution from adjacent luminaires



PLAN VIEW

42W Fluorescent – 10' Mounting Height

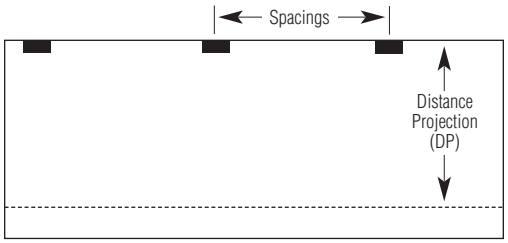
Spacing	Distance Projection	Average	Minimum	Maximum
10'	13'	3.85	**0.61**	6.14
	11'	4.36	**1.22**	6.14
	9'	4.93	**2.41**	6.14
	8'	5.20	**3.29**	6.14
15'	12'	2.76	**0.59**	4.34
	10'	3.13	**1.17**	4.34
	8'	3.50	**2.09**	4.34
20'	11'	2.19	**0.47**	3.97
	8'	2.61	**1.23**	3.97

42W Fluorescent – 12' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
12'	15'	2.78	**0.50**	4.28
	12'	3.25	**1.19**	4.28
	10'	3.58	**2.06**	4.28
	8'	3.85	**3.17**	4.28
18'	14'	1.95	**0.45**	2.99
	11'	2.28	**1.04**	2.99
	8'	2.57	**1.99**	2.99
24'	12'	1.66	**0.46**	2.79
	9'	1.91	**0.97**	2.79

42W Fluorescent – 15' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
15'	17'	1.92	**0.47**	2.77
	14'	2.18	**0.94**	2.77
	10'	2.48	**2.01**	2.77
22.5'	15'	1.40	**0.51**	1.94
	11'	1.62	**1.09**	1.94
30'	12'	1.17	**0.52**	1.80



PLAN VIEW

Illumination Levels

- Initial lamp lumens for 250W MH = 23,000
  Initial lamp lumens for 250W HPS = 29,000
- Maintained Footcandles (maintenance factors: Metal Halide - 0.72, High Pressure Sodium - 0.80)
- Light levels assume 40% wall reflectance and contribution from adjacent luminaires

250HPS – 25' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
75'	46'	2.95	**0.50**	7.60
	36'	3.60	**1.00**	7.60
	25'	4.43	**2.09**	7.60
	19'	5.06	**2.92**	7.60
87.5'	43'	2.77	**0.51**	7.16
	32'	3.46	**1.03**	7.16
	22'	4.24	**2.07**	7.16
100'	40'	2.34	**0.49**	6.90
	29'	2.97	**1.00**	6.90
	20'	3.57	**1.96**	6.90

250HPS – 20' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
60'	41'	3.88	**0.51**	10.9
	34'	4.74	**1.00**	10.9
	25'	5.74	**2.07**	10.9
	20'	6.57	**3.05**	10.9
70'	39'	3.99	**0.51**	10.4
	32'	4.75	**0.96**	10.4
	22'	6.02	**2.08**	10.4
	18'	6.69	**3.03**	10.4
80'	38'	3.44	**0.49**	9.93
	30'	4.11	**1.00**	9.93
	21'	4.99	**2.00**	9.93
	17'	5.68	**2.96**	9.93

250HPS – 15' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
45'	38'	6.38	**0.52**	18.7
	31'	7.34	**1.05**	18.7
	25'	8.72	**2.06**	18.7
	24'	9.85	**3.07**	18.7
52.5'	37'	5.53	**0.56**	18.0
	30'	6.82	**0.99**	18.0
	23'	8.09	**2.02**	18.0
	19'	9.16	**2.95**	18.0
60'	33'	4.94	**0.50**	16.6
	27'	5.78	**0.99**	16.6
	21'	6.95	**2.00**	16.6
	17'	7.93	**2.90**	16.6

250MH – 25' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
75'	35'	2.88	**0.51**	7.33
	27'	3.46	**1.05**	7.33
	19'	4.26	**2.03**	7.33
87.5'	34'	2.69	**0.51**	7.21
	26'	3.22	**0.99**	7.21
	19'	3.80	**1.92**	7.21
100'	31'	2.33	**0.52**	6.87
	24'	2.79	**1.04**	6.87

250MH – 20' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
60'	39'	3.17	**0.49**	7.48
	30'	3.94	**0.99**	7.48
	21'	4.79	**2.10**	7.48
	16'	5.44	**3.13**	7.48
70'	36'	3.30	**0.49**	7.42
	27'	3.97	**1.04**	7.42
	19'	4.87	**1.98**	7.42
	15'	5.29	**3.15**	7.42
80'	34'	2.86	**0.53**	7.26
	26'	3.43	**1.03**	7.26
	19'	4.06	**1.94**	7.26

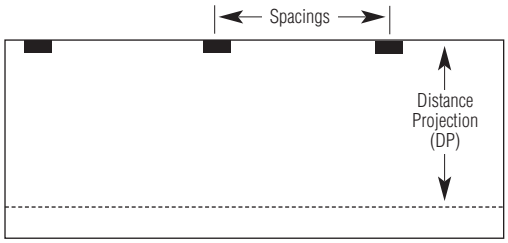
250MH – 15' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
45'	36'	5.10	**0.51**	13.3
	29'	5.92	**0.96**	13.3
	22'	7.41	**1.94**	13.3
	18'	8.35	**3.11**	13.3
52.5'	35'	4.44	**0.48**	12.3
	26'	5.78	**1.08**	12.3
	20'	6.87	**2.05**	12.3
	16'	7.80	**3.06**	12.3
60'	31'	4.00	**0.53**	11.7
	25'	4.74	**0.98**	11.7
	19'	5.85	**1.94**	11.7
	15'	6.62	**3.08**	11.7

141/250 WATT FORWARD THROW

Illumination Levels

- Initial lamp lumens for 250W MH = 23,000
  Initial lamp lumens for 250W HPS = 29,000
- Maintained Footcandles (maintenance factors:
  Metal Halide - 0.72, High Pressure Sodium - 0.80)
- Light levels assume 40% wall reflectance and
  contribution from adjacent luminaires



PLAN VIEW

250HPS – 25' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
25'	77'	6.84	**0.52**	13.9
	68'	7.73	**0.98**	13.9
	60'	8.54	**2.06**	13.9
	56'	8.97	**3.05**	13.9
37.5'	72'	4.85	**0.50**	9.39
	63'	5.39	**1.06**	9.39
	56'	5.94	**2.09**	9.39
	51'	6.27	**3.15**	9.39
50'	69'	3.98	**0.49**	8.69
	61'	4.40	**0.98**	8.69
	53'	4.87	**2.03**	8.69
	47'	5.18	**3.10**	8.69

250HPS – 20' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
20'	71'	9.14	**0.50**	21.3
	59'	10.8	**1.03**	21.3
	52'	12.3	**2.09**	21.3
	48'	13.1	**3.28**	21.3
30'	64'	6.86	**0.50**	15.1
	55'	7.85	**1.05**	15.1
	49'	8.62	**1.98**	15.1
	45'	9.15	**3.20**	15.1
40'	60'	5.49	**0.50**	13.1
	53'	6.10	**0.98**	13.1
	46'	6.82	**2.18**	13.1
	43'	7.13	**3.00**	13.1

250HPS – 15' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
15'	66'	13.0	**0.49**	37.9
	52'	16.5	**1.01**	37.9
	43'	19.5	**2.16**	37.9
	40'	20.8	**3.27**	37.9
22.5'	60'	9.71	**0.50**	25.8
	47'	12.2	**1.03**	25.8
	41'	13.8	**1.98**	25.8
	38'	14.7	**3.03**	25.8
30'	55'	8.06	**0.51**	23.6
	44'	9.77	**1.04**	23.6
	39'	11.0	**2.02**	23.6
	36'	11.7	**3.10**	23.6

250MH – 25' Mounting Height

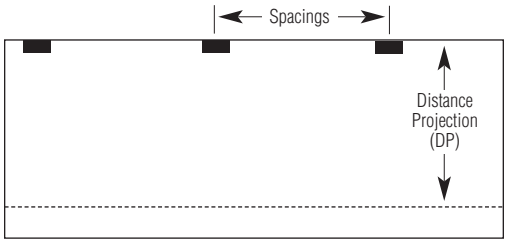
Spacing	Distance Projection	Average	Minimum	Maximum
25'	70'	5.28	**0.50**	12.2
	57'	6.35	**1.02**	12.2
	48'	7.27	**2.01**	12.2
	43'	7.86	**3.08**	12.2
37.5'	63'	3.87	**0.50**	8.20
	52'	4.55	**1.01**	8.20
	43'	5.20	**2.05**	8.20
	38'	5.61	**3.07**	8.20
50'	58'	3.25	**0.51**	6.98
	48'	3.75	**1.04**	6.98
	40'	4.22	**2.06**	6.98
	35'	4.70	**2.89**	6.98

250MH – 20' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
20'	65'	7.12	**0.51**	18.8
	53'	8.51	**1.00**	18.8
	43'	10.2	**2.08**	18.8
	39'	11.1	**3.00**	18.8
30'	57'	5.39	**0.52**	12.7
	47'	6.38	**1.03**	12.7
	39'	7.44	**2.07**	12.7
	35'	8.00	**3.06**	12.7
40'	53'	4.39	**0.53**	10.8
	43'	5.21	**1.03**	10.8
	36'	5.94	**2.08**	10.8
	32'	6.51	**3.15**	10.8

250MH – 15' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
15'	60'	10.3	**0.50**	33.2
	47'	12.8	**1.00**	33.2
	38'	15.5	**2.04**	33.2
	34'	17.0	**3.05**	33.2
22.5'	54'	7.71	**0.50**	22.5
	42'	9.59	**1.05**	22.5
	34'	11.6	**2.19**	22.5
	35'	11.4	**1.93**	22.5
	31'	12.5	**3.07**	22.5
30'	49'	6.34	**0.51**	19.3
	39'	7.81	**1.02**	19.3
	32'	9.09	**1.91**	19.3
	28'	9.99	**3.28**	19.3



PLAN VIEW

Illumination Levels

- Initial lamp lumens for 350W PSMH = 34,200
- Maintained Footcandles (maintenance factors: Metal Halide - 0.72)
- Light levels assume 40% wall reflectance and contribution from adjacent luminaires

FORWARD THROW

350PSMH – 30' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
30'	90'	5.45	**0.49**	10.8
	77'	6.25	**1.03**	10.8
	67'	6.96	**2.10**	10.8
	61'	7.39	**3.10**	10.8
45'	83'	4.01	**0.48**	7.72
	72'	4.51	**1.05**	7.72
	62'	5.05	**2.06**	7.72
	55'	5.40	**3.02**	7.72
60'	79'	3.02	**0.49**	6.55
	68'	3.39	**1.02**	6.55
	57'	3.84	**2.01**	6.55

350PSMH – 25' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
25'	82'	7.29	**0.51**	15.7
	70'	8.42	**1.01**	15.7
	61'	9.48	**1.97**	15.7
	56'	10.1	**3.09**	15.7
37.5'	75'	5.25	**0.51**	11.1
	65'	5.96	**1.03**	11.1
	56'	6.65	**2.15**	11.1
	51'	7.10	**3.14**	11.1
50'	72'	4.29	**0.50**	9.43
	62'	4.84	**1.03**	9.43
	53'	5.46	**2.05**	9.43
	47'	5.84	**3.08**	9.43

350PSMH – 20' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
20'	77'	9.71	**0.50**	24.0
	62'	11.8	**1.05**	24.0
	53'	13.6	**2.15**	24.0
	49'	14.5	**3.13**	24.0
30'	68'	7.33	**0.51**	17.1
	57'	8.54	**1.00**	17.1
	50'	9.59	**1.97**	17.1
	46'	10.2	**3.00**	17.1
40'	64'	5.81	**0.50**	14.2
	54'	6.75	**1.05**	14.2
	47'	7.55	**2.06**	14.2
	43'	8.01	**3.06**	14.2

WIDE THROW

350PSMH – 30' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
90'	54'	2.57	**0.51**	6.04
	42'	3.05	**0.98**	6.04
	27'	3.80	**2.06**	6.04
105'	50'	2.16	**0.52**	5.71
	36'	2.73	**1.05**	5.71
120'	49'	2.01	**0.49**	5.35
	35'	2.49	**1.01**	5.35

350PSMH – 25' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
75'	51'	3.19	**0.50**	7.83
	40'	3.72	**1.04**	7.83
	29'	4.58	**1.98**	7.83
	22'	5.22	**2.96**	7.83
87.5'	48'	2.99	**0.50**	7.55
	37'	3.55	**1.03**	7.55
	25'	4.40	**2.11**	7.55
100'	46'	2.49	**0.51**	7.24
	35'	3.01	**1.00**	7.24
	21'	3.81	**1.84**	7.24

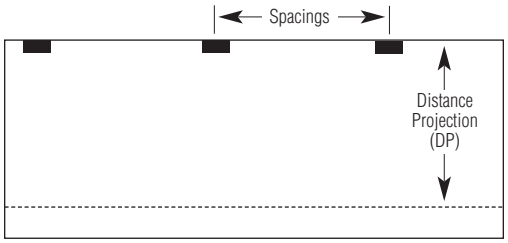
350PSMH – 20' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
60'	46'	4.24	**0.53**	11.2
	38'	5.03	**0.99**	11.2
	29'	5.97	**2.01**	11.2
	23'	11.1	**3.05**	11.2
70'	45'	4.20	**0.48**	10.6
	35'	5.00	**1.00**	10.6
	26'	6.15	**2.01**	10.6
	20'	6.99	**3.04**	10.6
80'	43'	3.59	**0.49**	10.8
	34'	4.38	**0.99**	10.8
	25'	5.23	**2.02**	10.8
	19'	5.89	**3.07**	10.8

141/400 WATT FORWARD THROW

Illumination Levels

- Initial lamp lumens for 400W MH = 39,000
  Initial lamp lumens for 400W HPS = 50,000
- Maintained Footcandles (maintenance factors:
  Metal Halide - 0.72, High Pressure Sodium - 0.80)
- Light levels assume 40% wall reflectance and
  contribution from adjacent luminaires



PLAN VIEW

400HPS – 30' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
30'	97'	7.60	**0.49**	16.1
	85'	8.61	**1.01**	16.1
	76'	9.42	**2.04**	16.1
	70'	10.0	**3.13**	16.1
45'	90'	5.65	**0.52**	11.4
	80'	6.23	**1.06**	11.4
	71'	6.81	**2.02**	11.4
	65'	7.26	**3.07**	11.4
60'	86'	4.20	**0.50**	10.1
	76'	4.65	**1.07**	10.1
	67'	5.10	**2.04**	10.1
	60'	5.44	**3.04**	10.1

400HPS – 25' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
25'	89'	10.0	**0.49**	22.9
	76'	11.9	**1.02**	22.9
	68'	13.0	**1.95**	22.9
	63'	13.7	**3.05**	22.9
37.5'	81'	7.34	**0.53**	15.9
	71'	8.24	**1.04**	15.9
	63'	9.06	**2.10**	15.9
	59'	9.53	**3.02**	15.9
50'	78'	5.94	**0.51**	14.6
	68'	6.74	**1.07**	14.6
	61'	7.33	**1.92**	14.6
	56'	7.77	**3.02**	14.6

400HPS – 20' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
20'	83'	13.3	**0.52**	35.7
	67'	16.3	**1.06**	35.7
	59'	18.3	**1.98**	35.7
	55'	19.4	**2.97**	35.7
30'	75'	9.85	**0.50**	25.6
	63'	11.6	**0.99**	25.6
	55'	13.2	**2.07**	25.6
	51'	14.1	**3.13**	25.6
40'	71'	7.92	**0.49**	22.1
	59'	9.38	**1.06**	22.1
	52'	10.6	**2.19**	22.1
	49'	11.1	**2.97**	22.1

400MH – 30' Mounting Height

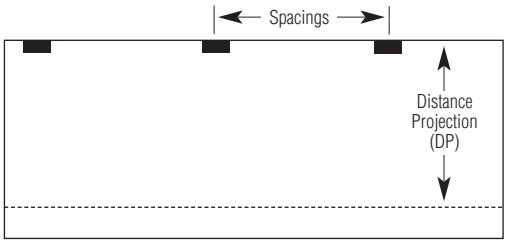
Spacing	Distance Projection	Average	Minimum	Maximum
30'	92'	5.15	**0.50**	10.5
	78'	6.06	**1.15**	10.5
	68'	6.73	**1.99**	10.5
	61'	7.22	**3.02**	10.5
45'	86'	3.78	**0.51**	7.21
	73'	4.33	**1.03**	7.21
	62'	4.83	**1.99**	7.21
	54'	5.20	**3.03**	7.21
60'	81'	2.85	**0.50**	6.24
	68'	3.27	**1.03**	6.24
	56'	3.68	**1.99**	6.24

400MH – 25' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
25'	85'	6.91	**0.49**	14.7
	73'	7.90	**0.99**	14.7
	62'	9.00	**2.07**	14.7
	56'	9.76	**3.16**	14.7
37.5'	78'	4.93	**0.52**	10.1
	66'	5.68	**1.06**	10.1
	57'	6.34	**1.98**	10.1
	51'	6.82	**3.03**	10.1
50'	75'	3.96	**0.49**	9.00
	63'	4.58	**1.01**	9.00
	53'	5.22	**2.00**	9.00
	47'	5.58	**2.95**	9.00

400MH – 20' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
20'	76'	9.57	**0.50**	22.5
	64'	11.1	**1.06**	22.5
	56'	12.5	**1.97**	22.5
	50'	13.7	**3.18**	22.5
30'	71'	6.75	**0.50**	16.2
	60'	7.91	**0.99**	16.2
	51'	9.06	**1.98**	16.2
	46'	9.78	**3.07**	16.2
40'	67'	5.42	**0.49**	13.6
	56'	6.40	**1.04**	13.6
	48'	7.22	**1.96**	13.6
	43'	7.79	**2.99**	13.6



PLAN VIEW

Illumination Levels

- Initial lamp lumens for 400W MH = 39,000
  Initial lamp lumens for 400W HPS = 50,000
- Maintained Footcandles (maintenance factors: Metal Halide - 0.72, High Pressure Sodium - 0.80)
- Light levels assume 40% wall reflectance and contribution from adjacent luminaires

400HPS – 30' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
90'	57'	3.62	**0.50**	9.70
	46'	4.20	**1.01**	9.70
	34'	5.11	**2.03**	9.70
	26'	5.94	**3.04**	9.70
105'	53'	3.02	**0.51**	9.26
	42'	3.70	**1.01**	9.26
	30'	4.53	**2.02**	9.26
120'	51'	2.93	**0.51**	8.88
	40'	3.44	**1.04**	8.88
	27'	4.32	**2.02**	8.88

400HPS – 25' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
75'	52'	4.50	**0.53**	12.9
	43'	5.26	**1.04**	12.9
	34'	6.34	**1.99**	12.9
	27'	7.18	**3.12**	12.9
87.5'	50'	4.05	**0.54**	12.2
	40'	4.86	**1.07**	12.2
	31'	5.89	**1.99**	12.2
	25'	6.66	**3.04**	12.2
100'	47'	3.48	**0.49**	11.8
	38'	4.27	**1.01**	11.8
	28'	5.19	**2.00**	11.8
	21'	5.91	**3.08**	11.8

400HPS – 20' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
60'	48'	6.05	**0.51**	18.7
	39'	7.02	**1.03**	18.7
	32'	8.39	**1.96**	18.7
	27'	9.25	**3.05**	18.7
70'	47'	5.60	**0.48**	17.5
	37'	7.03	**1.05**	17.5
	29'	8.43	**2.03**	17.5
	24'	9.68	**3.11**	17.5
80'	44'	4.90	**0.50**	17.1
	36'	6.09	**0.98**	17.1
	28'	7.30	**2.11**	17.1
	23'	8.10	**3.05**	17.1

400MH – 30' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
90'	55'	2.51	**0.52**	6.12
	43'	2.99	**0.96**	6.12
	28'	3.80	**2.03**	6.12
105'	51'	2.13	**0.49**	5.53
	37'	2.59	**1.03**	5.53
	28'	2.98	**1.62**	5.53
120'	48'	1.98	**0.50**	5.61
	34'	2.44	**1.04**	5.61

400MH – 25' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
75'	52'	3.12	**0.51**	8.28
	40'	3.80	**1.07**	8.28
	29'	4.63	**2.04**	8.28
	22'	5.28	**3.11**	8.28
87.5'	49'	2.91	**0.50**	7.89
	37'	3.57	**1.02**	7.89
	26'	4.40	**1.96**	7.89
100'	46'	2.50	**0.51**	7.58
	34'	3.05	**1.03**	7.58
	25'	3.57	**1.90**	7.58

400MH – 20' Mounting Height

Spacing	Distance Projection	Average	Minimum	Maximum
60'	48'	4.20	**0.50**	11.8
	38'	5.06	**1.04**	11.8
	29'	6.01	**2.02**	11.8
	23'	6.86	**3.14**	11.8
70'	45'	4.26	**0.50**	11.5
	36'	5.05	**0.97**	11.5
	27'	6.01	**2.03**	11.5
	21'	6.87	**2.96**	11.5
80'	43'	3.56	**0.51**	10.9
	33'	4.35	**1.04**	10.9
	24'	5.38	**2.09**	10.9
	20'	5.77	**2.92**	10.9

ORDERING INFORMATION

example: 103 FT-U

LUMINAIRE

DISTRIBUTION

101

height: 7"
width: 16 1/4"
depth: 9"

102

height: 8 1/4"
width: 16 1/4"
depth: 9"

FT = Forward Throw Downlight (Not available with fluorescent)

WT = Wide Throw Downlight (Not available with fluorescent)

MT = Medium Throw

101 and 102 luminaires installed in the normal downlight position meet IESNA full cutoff criteria.

103

height: 7"
width: 18"
depth: 9"

FT-U = 90% Downlight/10% Uplight (Not available with fluorescent)
WT-U = 90% Downlight/10% Uplight (Not available with fluorescent)
MT-U = 90% Downlight/10% Uplight
MT-UD = 50% Downlight/50% Uplight (Coated MH lamps recommended)

104

height: 7"
width: 18"
depth: 9"

106

height: 9 1/8"
width: 18"
depth: 9"

FT = Forward Throw Downlight (Not available with fluorescent)

WT = Wide Throw Downlight (Not available with fluorescent)

MT = Medium Throw Downlight

104 and 106 luminaires installed in the normal downlight position meet IESNA full cutoff criteria.

105

height: 9 1/8"
width: 18"
depth: 9"

FT-U = 70% Downlight/30% Uplight (Not available with fluorescent)

UD = Uplight Glow/Downlight

107

height: 7 1/2"
width: 21 1/4"
depth: 11 1/2"

108

height: 7 1/8"
width: 25 1/4"
depth: 11 1/2"

FT = Forward Throw Downlight (Not available with fluorescent)

WT = Wide Throw Downlight (Not available with fluorescent)

MT = Medium Throw Downlight

107 and 108 luminaires (without LED rings) installed in the normal downlight position meet IESNA full cutoff criteria.

175 MH	120	WP		F
WATTAGE	**VOLTAGE**	**FINISH**	**RING** (108 only)	**OPTIONS**

WATTAGE	VOLTAGE	FINISH	RING (108 only)	OPTIONS
35 HPS (120V only) 50 HPS 70 HPS 100 HPS 150 HPS (S55) 50 MH 50 CMHE* 70 MH 70 CMHE* 100 MH 100 CMHE* 150 MH (M102) 175 MH 26 QF (Quad Tube Fluorescent) (2) 26 QF (Quad Tube Fluorescent) 42 TRF (Triple Tube Fluorescent) (2) 42 TRF (101, 103, 104, 107, 108 only)	120V 277V 347V ((2) 42 TRF not available) (Not available with CMHE lamps) Contact factory for other voltages	BRP Bronze Paint BLP Black Paint WP White Paint NP Natural Paint BGP Beige Paint OC Optional Color (Specify RAL Designation ex: OC-RAL7024) SC Special Color (Color Chip Required)	AR = Ring Painted to Match Housing SR = Stainless Steel Ring (Brushed) OR = Optional Color Ring LR = Less Ring LER = Red LED LEO = Orange LED LEA = Amber LED LEG = Green LED LEB = Blue LED	F = Fusing (120V, 277V) PCB = Button Type Photocontrol (Not available on 480V, N/A 105) QS = Quartz Standby (Not available in 105; 35 HPS, all models; FT, MT optics on 103-106 or 108; electronic ballasts, all models) Q924 = Quartz Emergency (HID only, 150 watt max. HID, 100 watt max. Quartz, WT Optics only) SL = Solite® Diffusing Lens (For daytime obscuring of optical system and lamp. Can reduce spacing capability of sconces) UT = 5° Uptilt for FT Optics WLU = Wet Location Door for Inverted (101/102 only) WS = Wall Mount, Surface Conduit (see photo on page 36) WS/UT = Wall Mount, Surface Conduit with 5˚ uptilt for FT optics WG = Wire Guard (Now Available 103, 104, 105, 106, 108) * CMHE = Ceramic Metal Halide with electronic ballast (120/277 volt only)
35 - 150 HPS	120V only			
50 - 70 MH 100 - 150 MH	120V, 277V, 277V only			
(1) 42 TRF	120V, 277V, 347V 120V			
All Wattages	120V 277V 347V			

Prior to ordering, consult submittal data on www.sitelighting.com for the most current information.

111 ORDERING INFORMATION

111 luminaires installed in the normal downlight position meet IESNA full cutoff criteria.

	PREFIX	DISTRIBUTION	WATTAGE	VOLTAGE	FINISH	OPTIONS
example	111	FT	50HPS	120	BRP	F

PREFIX

111

DISTRIBUTION

FT[1] Forward Throw
WT[1] Wide Throw
MT[2] Medium Throw

Please refer to notes below for lamp types

WATTAGE

35HPS[4]
50HPS[4]
70HPS
50MH[4]
70MH
T39MH[4]
T70MH
T39CMHE[4]
26QF
32TRF
42TRF
INC[3, 5]

VOLTAGE

120
277
347

Consult factory for other voltages

FINISH

BRP Bronze
BLP Black
WP White
NP Natural Aluminum
BGP Beige
OC Optional Color (Specify RAL designation ex: OC-RAL7024)
SC Special Color (color chip required)

OPTIONS

F Fusing (120V/277V only)
PCB Button Type Photocontrol
SL Solite® Diffusing Lens
WLU Wet Location Door for Inverted Mounting (Not available with WG option)
WG Wire Guard (Not available with WLU option)
WS Wall Mounted Box for Surface Conduit

1. T39MH, T70MH, T39CMHE only
2. Fluorescent and ED17 lamps only
3. Available in 120V only
4. Not available with 347V
5. BT 15-150W max.

T39MH, T70MH and T39CMHE types utilize T6-G12 based lamps, which are supplied with the luminaire.

141 ORDERING INFORMATION

141 luminaires installed in the normal downlight position meet IESNA full cutoff criteria.

	PREFIX	DISTRIBUTION	WATTAGE	VOLTAGE	FINISH	OPTIONS
example	141	FT	250HPS	120	BRP	F

PREFIX

141

DISTRIBUTION

FT Forward Throw
WT Wide Throw

WATTAGE

250HPS
400HPS
250MH
400MH*
250 PSMH
320 PSMH
350 PSMH
400 PSMH*

* Uses reduced jacket E28 lamp

VOLTAGE

120
208
240
277
347
480

FINISH

BRP Bronze Paint
BLP Black Paint
WP White Paint
NP Natural Aluminum Paint
BGP Beige Paint
OC Optional Color (Specify RAL designation ex: OC-RAL7024)
SC Special Color Paint (provide color chip)

OPTIONS

F Fusing
SL Solite Diffusing Lens (For daytime obscuring of optical system and lamp. Can reduce spacing capability of sconces)
UT 5˚ Uptilt Bracket for FT optics
PCB Button Type Photocontrol (not available on 480V)
QS Quartz Standby (150W max. quartz wattage)
WS Wall Mt. Box for Surface Conduit
WS/UT Wall Mt. Box for Surface Conduit with 5˚ Uptilt Bracket for FT optics
WG Wire Guard

Prior to ordering, consult submittal data on www.sitelighting.com for the most current information.

Emergency Sconces mounted in the normal downlight position meet IESNA full cutoff criteria.

PREFIX	DISTRIBUTION	WATTAGE	VOLTAGE	FINISH	RING[1]		LED RING[1]	OPTIONS
example: 101EM	MT	42TRF	120	BRP	AR	OR	LER	F

PREFIX

101EM
102EM
103EM
104EM
106EM
107EM
108EM
111EM[5]

101EMC[6]
104EMC[6]
111EMC[5]

101EMR
102EMR
103EMR
104EMR
106EMR
107EMR
108EMR
111EMR[3]

EM = Integral Emergency Ballast (Fluorescent Only)
EMR = Remote Emergency Ballast (Fluorescent Only)

1. 108 series only.
2. EMR series only. Not included standard.
3. 111EMR available with 42TRF only.
4. 111EM only.
5. 26QF or 32TRF only.
6. 26QF, 32TRF or 42TRF only.

DISTRIBUTION

MT Medium Throw

WATTAGE

26QF[4]
(2)26QF
32TRF[4]
42TRF

VOLTAGE

120
277
347
(Canada only)

FINISH

BRP Bronze
BLP Black
WP White
NP Natural Aluminum
BGP Beige
OC Optional Color (Specify RAL designation ex: OC-RAL7024)
SC Special Color (color chip required)

RING[1]

AR Aluminum Ring
SR Stainless Steel Ring (Brushed)
OR Optional Color Ring
LR Less Ring

LED RING[1]

LER (Red)
LEO (Orange)
LEA (Amber)
LEG (Green)
LEB (Blue)

OPTIONS

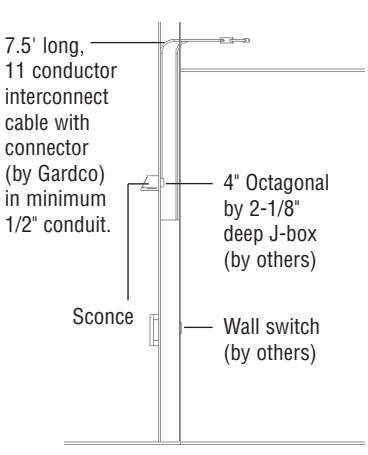
B30[2] Bodine Remote Emergency Pack – Full Light Output (EMR luminaires only. Must be ordered here or supplied by others)
B84C[2] Bodine Remote Emergency Pack (EMR luminaires only. Must be ordered here or supplied by others)
B84C-CAN[2] Bodine Remote Emergency Pack – Canada (EMR luminaires only. Must be ordered here or supplied by others)
UT 5° Uptilt
Poly Polycarbonate Sag Lens (N/A with 111)
PCB Button Type Photocontrol
SL Solite® Diffusing Lens
WG Wire Guard
WS Surface Conduit

Prior to ordering, consult submittal data on www.sitelighting.com for the most current information.

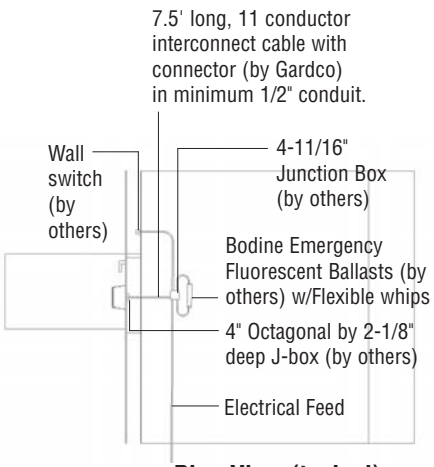
Note: For emergency luminaires requiring two sources of supply, refer to Q924 option on page 33.

Remote Mount Installation

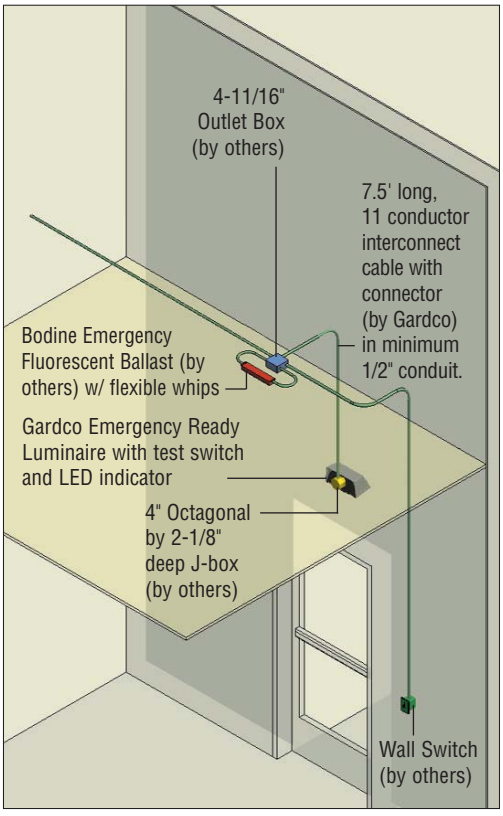
EMR luminaires are supplied with an integral LED charge indicator and test switch. A 7.5' whip is provided for wiring to a Bodine fluorescent emergency ballast, supplied by the contractor, or ordered from Gardco as an option. The emergency ballast is remotely installed in the plenum safely away from outside temperature extremes.



Section (typical)



Plan View (typical)



SPECIFICATIONS

GENERAL: Gardco Sconces are wall mounted cutoff luminaires for high intensity discharge and fluorescent lamps. The 103 and 105 introduce moderate uplight when vertical footcandles above the luminaire are desired. Circa 108 provides the option of an LED accent ring. Internal components are totally enclosed in a rain-tight, dust-tight and corrosion resistant housing. Housing, back plate and door frame are diecast aluminum. Optical choices are available for downlighting, uplighting, or both. Luminaires are primarily suitable for wet locations. When inverted, sconces can be used in damp locations unless a WLU option is available.

HOUSING: All housings are diecast aluminum. 105 housing is diecast with a high-impact resistant acrylic uplight diffuser. 103 diecast housing includes a prismatic tempered glass uplight top lens which is mechanically secured and silicone sealed. 108 includes an adornment ring which can be painted to match or accent the luminaire finish or, can be specified as an illuminated LED ring. Downlight only products have fully cast tops. Memory retentive gasket seals housing with door frame to exclude moisture, dust, insects and pollutants from optical systems. Black diecast ribbed backplate dissipates heat for longer lamp and ballast life.

DOOR FRAME: Single piece diecast aluminum door frame integrates to all housing forms. Door frame is hinged and secured to housing with (2) captive stainless steel fasteners. Heat and impact resistant 1/8" tempered glass lens and one-piece gasket are mechanically secured to door frame.

OPTICAL SYSTEMS: Reflectors are composed of specular extruded and Alzak® faceted components, electro-polished, anodized and sealed. Reflector segments are set in arc tube image duplicating patterns to achieve the wide throw, forward throw or medium throw downlight distributions. 105 utilizes an inner glass diffuser and a honeycomb louver or modified forward throw optics for uniform, consistent glow.

LED RING: The 108 luminaire may be provided with a decorative acrylic rod shaped to follow contour of luminaire and is illuminated at each end by light emitting diode (LED) illuminator assemblies.

The rod will have reflective coating causing an even brightness along its length resembling luminous tube lighting. There are no breaks, discrete spots, or other discontinuities visible in the intended viewing angle of 60˚ to 90˚ above nadir.

The method of rod attachment to luminaire allows for thermal expansion and contraction from -70˚ to +120F˚ without causing damage to the assembly.

The illuminator assembly at each end consists of a polycarbonate thermoplastic housing which encloses LEDs. The housing incorporates a three piece aluminum heat sink assembly that is finned for maximum heat dissipation and is fully gasketed. The LED ring is gasketed and permanently bonded to the housing.

Electrical supply powering each illuminator shall be a 700ma constant current LED driver. Primary wavelengths for the available colors shall be: Red – 626-635 nm; Orange – 605-609 nm; Amber – 509-592 nm; Blue – 465-470 nm, or Green – 520-525nm.

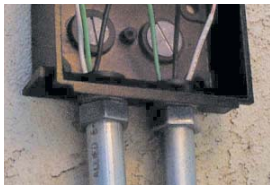
ELECTRICAL (Please refer to page 35 for additional Emergency Sconce specifications): Each HID ballast is high power factor and is capable of providing reliable lamp starting to -20˚F (-29˚C). Magnetic ballast is of the separate component type, solid state ballast is provided with integral enclosure. Fluorescent ballasts have a lamp starting temperature of 0˚F (-18˚C) and are solid state.

LAMPHOLDER: Pulse rated medium base sockets are glazed porcelain with nickel plated screw shell. Fluorescent sockets are high temperature plastic (PBT) with brass contacts. T6 lamps use a G12 base, pulse rated porcelain socket.

FINISH: Each luminaire receives a fade and abrasion resistant, electrostatically applied thermal cured, textured TGIC polyester powdercoat finish.

SUPPLY CONNECTION: Via recessed J-box by others (4sq., 3-0, 4-0 recessed) 90˚C supply wire minimum. Surface cast aluminum box option for surface conduit. Four threaded openings provided. Wall mount over conduit stub-out using surface box. With 100 Series and 141 SuperSconce, a 5˚ uptilt option available with either mounting.

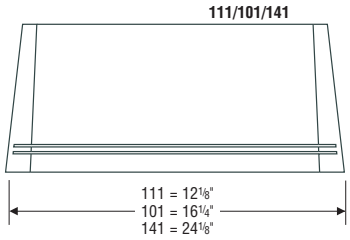
LABELS: All fixtures bear UL or CUL (where applicable) labels. Lens down application is Wet Location and lens up is Damp Location, except when using the optional inverted Wet Location components.

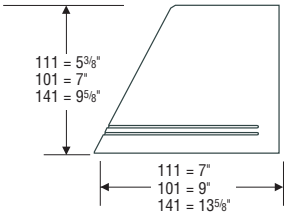


The WS option allows for mounting sconces using surface conduit. The sconce mounts over a factory supplied surface junction box allowing for use in retrofit situations or where surface conduit is required.

DIMENSIONS

111
101
141





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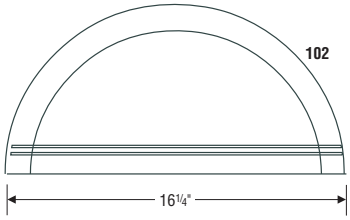
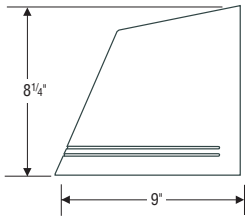
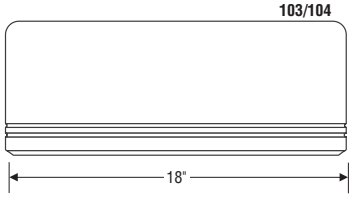
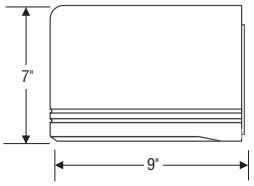




103
104





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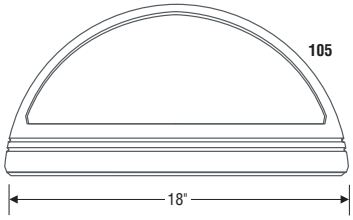

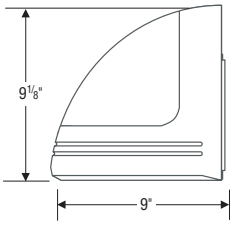

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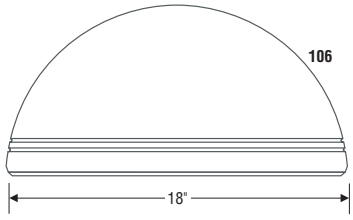

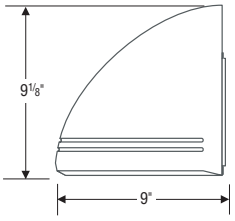

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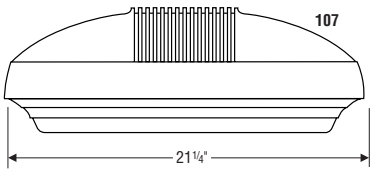

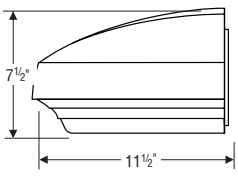

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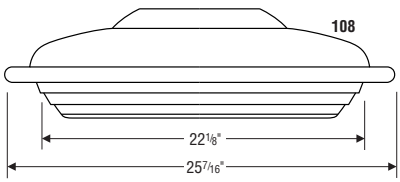
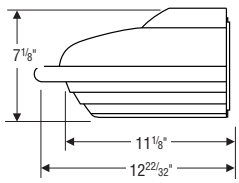
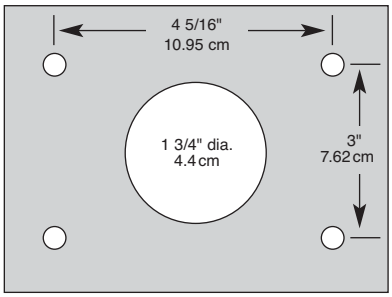
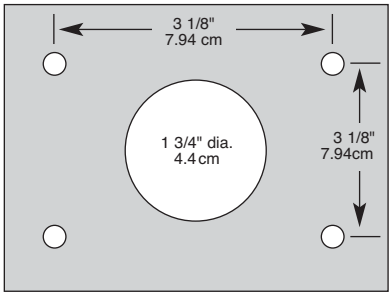






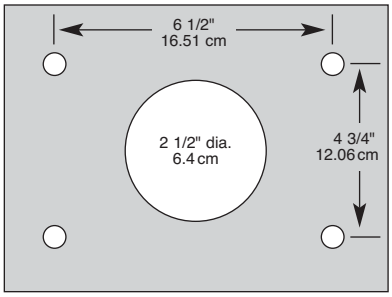
100 Line Sconces (101 - 108)
Mounting Bolt Pattern

Note: Mounting plate center is located in the center of the luminaire width and 3.5" above the luminaire bottom (lens down position). Splices must be made in the J-box (by others). Mounting plate must be secured by max. 5/16" diameter bolts (by others) structurally to the wall.



110 Mini Sconce
Mounting Bolt Pattern

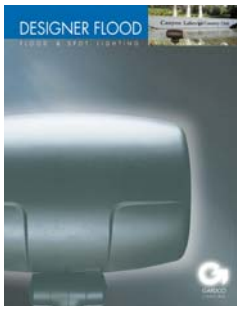
Note: Mounting plate center is located in the center of the luminaire width and 2.38" above the luminaire bottom (lens down position). Splices must be made in the J-box (by others). Mounting plate must be secured by max. 1/4" diameter bolts (by others) structurally to the wall.



140 Super Sconce
Mounting Bolt Pattern

Note: Mounting plate center is located in the center of the luminaire width and 4.63" above the luminaire bottom (lens down position). Splices must be made in the J-box (by others). Mounting plate must be secured by max. 5/16" diameter bolts (by others) structurally to the wall.

Designer Floodlights



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