

PHILIPS**PHILIPS****Day-Brite****CFI****IES INDOOR REPORT****PHOTOMETRIC FILENAME : APX20LL40-UNV-A-LFA.IES****DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002

[TEST] FO33745.PSO

[TESTLAB] PHILIPS DAY-BRITE PHOTOMETRIC LABORATORY

[ISSUEDATE] 10/29/14

[MANUFAC] PHILIPS DAY-BRITE - PHILIPS CFI

[LUMCAT] APX20LL40-UNV-A-LFA

[LUMINAIRE] PHILIPS APX 4-2LP 1.0.1 4000K 2-95W DRIVERS 18K RESISTORS AISLE OPTICS DIRA-FR50 LENS

[LAMP] LED. LUMINAIRE OUTPUT = 17803 LMS

[TESTDATE] 10/29/14

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	17803
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	106
Total Luminaire Watts	168.4
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.14
Spacing Criterion (90-270)	1.48
Spacing Criterion (Diagonal)	1.42
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	4.29 ft
Luminous Width (90-270)	1.17 ft
Luminous Height	0.50 ft

**LUMINANCE DATA (cd/sq.m)**

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	7826	8558	9995
55	6592	7146	8758
65	5392	5634	7631
75	3926	4060	5936
85	1699	2417	3948

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CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>	<u>202.5</u>
0.0	5590.73	5590.73	5590.73	5590.73	5590.73	5590.73	5590.73	5590.73	5590.73	5590.73
2.5	5565.35	5571.18	5590.06	5604.12	5610.59	5604.12	5590.06	5571.18	5565.35	5571.18
5.0	5536.01	5547.51	5585.22	5617.84	5627.65	5617.84	5585.22	5547.51	5536.01	5547.51
7.5	5486.01	5508.94	5574.36	5637.55	5656.10	5637.55	5574.36	5508.94	5486.01	5508.94
10.0	5413.56	5455.95	5557.03	5659.52	5687.53	5659.52	5557.03	5455.95	5413.56	5455.95
12.5	5322.28	5386.49	5534.41	5675.50	5719.32	5675.50	5534.41	5386.49	5322.28	5386.49
15.0	5213.15	5301.89	5501.68	5685.52	5744.28	5685.52	5501.68	5301.89	5213.15	5301.89
17.5	5084.64	5201.89	5455.99	5690.26	5764.95	5690.26	5455.99	5201.89	5084.64	5201.89
20.0	4938.07	5082.45	5395.84	5680.76	5774.36	5680.76	5395.84	5082.45	4938.07	5082.45
22.5	4775.34	4944.73	5319.67	5664.36	5773.74	5664.36	5319.67	4944.73	4775.34	4944.73
25.0	4597.80	4792.08	5229.84	5628.00	5750.30	5628.00	5229.84	4792.08	4597.80	4792.08
27.5	4402.85	4628.05	5124.36	5569.57	5701.70	5569.57	5124.36	4628.05	4402.85	4628.05
30.0	4201.87	4450.48	5003.95	5490.68	5632.35	5490.68	5003.95	4450.48	4201.87	4450.48
32.5	3989.05	4259.52	4862.77	5383.47	5540.49	5383.47	4862.77	4259.52	3989.05	4259.52
35.0	3767.47	4057.78	4699.55	5254.60	5427.41	5254.60	4699.55	4057.78	3767.47	4057.78
37.5	3544.49	3850.14	4516.57	5108.43	5286.54	5108.43	4516.57	3850.14	3544.49	3850.14
40.0	3323.75	3635.97	4326.16	4940.32	5115.39	4940.32	4326.16	3635.97	3323.75	3635.97
42.5	3103.94	3418.66	4126.14	4744.43	4921.76	4744.43	4126.14	3418.66	3103.94	3418.66
45.0	2884.09	3201.19	3910.94	4525.02	4708.52	4525.02	3910.94	3201.19	2884.09	3201.19
47.5	2667.64	2980.31	3682.24	4293.08	4485.69	4293.08	3682.24	2980.31	2667.64	2980.31
50.0	2457.97	2760.48	3443.90	4056.42	4253.90	4056.42	3443.90	2760.48	2457.97	2760.48
52.5	2255.19	2544.52	3205.68	3813.17	4013.14	3813.17	3205.68	2544.52	2255.19	2544.52
55.0	2058.62	2334.15	2964.07	3559.50	3775.53	3559.50	2964.07	2334.15	2058.62	2334.15
57.5	1867.80	2130.03	2724.74	3314.62	3541.90	3314.62	2724.74	2130.03	1867.80	2130.03
60.0	1682.84	1930.76	2489.02	3079.27	3323.44	3079.27	2489.02	1930.76	1682.84	1930.76
62.5	1503.91	1734.01	2257.01	2852.92	3111.47	2852.92	2257.01	1734.01	1503.91	1734.01
65.0	1329.54	1543.32	2027.87	2622.73	2884.74	2622.73	2027.87	1543.32	1329.54	1543.32
67.5	1158.44	1359.27	1805.85	2382.29	2641.48	2382.29	1805.85	1359.27	1158.44	1359.27
70.0	992.76	1181.56	1594.78	2135.30	2385.60	2135.30	1594.78	1181.56	992.76	1181.56
72.5	834.49	1010.20	1391.55	1894.52	2120.76	1894.52	1391.55	1010.20	834.49	1010.20
75.0	680.55	844.26	1194.43	1652.51	1860.66	1652.51	1194.43	844.26	680.55	844.26
77.5	530.75	685.48	1004.54	1417.08	1607.03	1417.08	1004.54	685.48	530.75	685.48
80.0	389.00	535.73	826.98	1196.14	1364.62	1196.14	826.98	535.73	389.00	535.73
82.5	263.69	400.83	667.52	997.99	1144.85	997.99	667.52	400.83	263.69	400.83
85.0	161.15	287.94	530.49	820.19	945.12	820.19	530.49	287.94	161.15	287.94
87.5	90.59	212.07	431.07	682.76	791.74	682.76	431.07	212.07	90.59	212.07
90.0	64.13	163.93	353.66	571.50	666.73	571.50	353.66	163.93	64.13	163.93
92.5	61.52	139.79	297.05	482.66	562.44	482.66	297.05	139.79	61.52	139.79
95.0	59.80	129.53	259.11	413.85	481.53	413.85	259.11	129.53	59.80	129.53
97.5	58.04	121.26	236.62	364.59	421.29	364.59	236.62	121.26	58.04	121.26
100.0	55.48	112.89	221.01	331.83	379.47	331.83	221.01	112.89	55.48	112.89
102.5	52.46	104.37	206.78	307.14	349.07	307.14	206.78	104.37	52.46	104.37
105.0	49.09	96.44	194.55	286.70	324.27	286.70	194.55	96.44	49.09	96.44
107.5	46.08	88.31	182.15	267.88	302.94	267.88	182.15	88.31	46.08	88.31
110.0	42.80	80.38	170.14	250.50	282.99	250.50	170.14	80.38	42.80	80.38
112.5	39.34	72.20	158.70	233.95	264.17	233.95	158.70	72.20	39.34	72.20
115.0	35.91	64.23	147.15	217.89	245.94	217.89	147.15	64.23	35.91	64.23
117.5	32.56	56.19	135.86	202.32	228.65	202.32	135.86	56.19	32.56	56.19
120.0	29.65	48.54	124.81	188.22	213.02	188.22	124.81	48.54	29.65	48.54
122.5	26.19	40.67	114.06	174.46	196.57	174.46	114.06	40.67	26.19	40.67
125.0	23.12	33.34	103.20	159.93	180.89	159.93	103.20	33.34	23.12	33.34
127.5	20.06	26.27	92.05	146.99	167.89	146.99	92.05	26.27	20.06	26.27
130.0	17.68	20.02	81.01	134.75	153.90	134.75	81.01	20.02	17.68	20.02
132.5	15.33	15.05	69.98	121.80	139.21	121.80	69.98	15.05	15.33	15.05

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CANDELA TABULATION - (Cont.)

135.0	13.12	11.85	58.73	108.51	124.86	108.51	58.73	11.85	13.12	11.85
137.5	10.90	9.90	47.66	95.05	110.72	95.05	47.66	9.90	10.90	9.90
140.0	8.94	7.79	36.99	81.85	95.94	81.85	36.99	7.79	8.94	7.79
142.5	6.99	6.18	27.62	68.17	81.65	68.17	27.62	6.18	6.99	6.18
145.0	5.43	4.84	19.00	55.16	67.03	55.16	19.00	4.84	5.43	4.84
147.5	3.81	3.72	11.24	42.09	52.76	42.09	11.24	3.72	3.81	3.72
150.0	3.04	2.95	4.97	29.92	39.20	29.92	4.97	2.95	3.04	2.95
152.5	2.38	2.74	4.02	18.61	26.40	18.61	4.02	2.74	2.38	2.74
155.0	2.17	2.67	3.61	8.46	14.63	8.46	3.61	2.67	2.17	2.67
157.5	2.39	2.53	3.28	4.15	7.21	4.15	3.28	2.53	2.39	2.53
160.0	2.19	2.50	3.16	3.79	4.03	3.79	3.16	2.50	2.19	2.50
162.5	2.40	2.43	2.84	3.29	3.40	3.29	2.84	2.43	2.40	2.43
165.0	2.56	2.53	2.58	2.86	2.90	2.86	2.58	2.53	2.56	2.53
167.5	2.26	2.30	2.27	2.51	2.66	2.51	2.27	2.30	2.26	2.30
170.0	2.25	2.31	2.32	2.27	2.07	2.27	2.32	2.31	2.25	2.31
172.5	2.46	2.50	2.12	2.01	2.10	2.01	2.12	2.50	2.46	2.50
175.0	2.61	2.50	2.18	2.23	1.96	2.23	2.18	2.50	2.61	2.50
177.5	2.64	2.70	2.34	2.11	2.03	2.11	2.34	2.70	2.64	2.70
180.0	2.23	2.23	2.23	2.23	2.23	2.23	2.23	2.23	2.23	2.23

**Vert.
Angles**

Horizontal Angles

	<u>225.0</u>	<u>247.5</u>	<u>270.0</u>	<u>292.5</u>	<u>315.0</u>	<u>337.5</u>	<u>360.0</u>
0.0	5590.73	5590.73	5590.73	5590.73	5590.73	5590.73	5590.73
2.5	5590.06	5604.12	5610.59	5604.12	5590.06	5571.18	5565.35
5.0	5585.22	5617.84	5627.65	5617.84	5585.22	5547.51	5536.01
7.5	5574.36	5637.55	5656.10	5637.55	5574.36	5508.94	5486.01
10.0	5557.03	5659.52	5687.53	5659.52	5557.03	5455.95	5413.56
12.5	5534.41	5675.50	5719.32	5675.50	5534.41	5386.49	5322.28
15.0	5501.68	5685.52	5744.28	5685.52	5501.68	5301.89	5213.15
17.5	5455.99	5690.26	5764.95	5690.26	5455.99	5201.89	5084.64
20.0	5395.84	5680.76	5774.36	5680.76	5395.84	5082.45	4938.07
22.5	5319.67	5664.36	5773.74	5664.36	5319.67	4944.73	4775.34
25.0	5229.84	5628.00	5750.30	5628.00	5229.84	4792.08	4597.80
27.5	5124.36	5569.57	5701.70	5569.57	5124.36	4628.05	4402.85
30.0	5003.95	5490.68	5632.35	5490.68	5003.95	4450.48	4201.87
32.5	4862.77	5383.47	5540.49	5383.47	4862.77	4259.52	3989.05
35.0	4699.55	5254.60	5427.41	5254.60	4699.55	4057.78	3767.47
37.5	4516.57	5108.43	5286.54	5108.43	4516.57	3850.14	3544.49
40.0	4326.16	4940.32	5115.39	4940.32	4326.16	3635.97	3323.75
42.5	4126.14	4744.43	4921.76	4744.43	4126.14	3418.66	3103.94
45.0	3910.94	4525.02	4708.52	4525.02	3910.94	3201.19	2884.09
47.5	3682.24	4293.08	4485.69	4293.08	3682.24	2980.31	2667.64
50.0	3443.90	4056.42	4253.90	4056.42	3443.90	2760.48	2457.97
52.5	3205.68	3813.17	4013.14	3813.17	3205.68	2544.52	2255.19
55.0	2964.07	3559.50	3775.53	3559.50	2964.07	2334.15	2058.62
57.5	2724.74	3314.62	3541.90	3314.62	2724.74	2130.03	1867.80
60.0	2489.02	3079.27	3323.44	3079.27	2489.02	1930.76	1682.84
62.5	2257.01	2852.92	3111.47	2852.92	2257.01	1734.01	1503.91
65.0	2027.87	2622.73	2884.74	2622.73	2027.87	1543.32	1329.54
67.5	1805.85	2382.29	2641.48	2382.29	1805.85	1359.27	1158.44
70.0	1594.78	2135.30	2385.60	2135.30	1594.78	1181.56	992.76
72.5	1391.55	1894.52	2120.76	1894.52	1391.55	1010.20	834.49
75.0	1194.43	1652.51	1860.66	1652.51	1194.43	844.26	680.55
77.5	1004.54	1417.08	1607.03	1417.08	1004.54	685.48	530.75
80.0	826.98	1196.14	1364.62	1196.14	826.98	535.73	389.00

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CANDELA TABULATION - (Cont.)

82.5	667.52	997.99	1144.85	997.99	667.52	400.83	263.69
85.0	530.49	820.19	945.12	820.19	530.49	287.94	161.15
87.5	431.07	682.76	791.74	682.76	431.07	212.07	90.59
90.0	353.66	571.50	666.73	571.50	353.66	163.93	64.13
92.5	297.05	482.66	562.44	482.66	297.05	139.79	61.52
95.0	259.11	413.85	481.53	413.85	259.11	129.53	59.80
97.5	236.62	364.59	421.29	364.59	236.62	121.26	58.04
100.0	221.01	331.83	379.47	331.83	221.01	112.89	55.48
102.5	206.78	307.14	349.07	307.14	206.78	104.37	52.46
105.0	194.55	286.70	324.27	286.70	194.55	96.44	49.09
107.5	182.15	267.88	302.94	267.88	182.15	88.31	46.08
110.0	170.14	250.50	282.99	250.50	170.14	80.38	42.80
112.5	158.70	233.95	264.17	233.95	158.70	72.20	39.34
115.0	147.15	217.89	245.94	217.89	147.15	64.23	35.91
117.5	135.86	202.32	228.65	202.32	135.86	56.19	32.56
120.0	124.81	188.22	213.02	188.22	124.81	48.54	29.65
122.5	114.06	174.46	196.57	174.46	114.06	40.67	26.19
125.0	103.20	159.93	180.89	159.93	103.20	33.34	23.12
127.5	92.05	146.99	167.89	146.99	92.05	26.27	20.06
130.0	81.01	134.75	153.90	134.75	81.01	20.02	17.68
132.5	69.98	121.80	139.21	121.80	69.98	15.05	15.33
135.0	58.73	108.51	124.86	108.51	58.73	11.85	13.12
137.5	47.66	95.05	110.72	95.05	47.66	9.90	10.90
140.0	36.99	81.85	95.94	81.85	36.99	7.79	8.94
142.5	27.62	68.17	81.65	68.17	27.62	6.18	6.99
145.0	19.00	55.16	67.03	55.16	19.00	4.84	5.43
147.5	11.24	42.09	52.76	42.09	11.24	3.72	3.81
150.0	4.97	29.92	39.20	29.92	4.97	2.95	3.04
152.5	4.02	18.61	26.40	18.61	4.02	2.74	2.38
155.0	3.61	8.46	14.63	8.46	3.61	2.67	2.17
157.5	3.28	4.15	7.21	4.15	3.28	2.53	2.39
160.0	3.16	3.79	4.03	3.79	3.16	2.50	2.19
162.5	2.84	3.29	3.40	3.29	2.84	2.43	2.40
165.0	2.58	2.86	2.90	2.86	2.58	2.53	2.56
167.5	2.27	2.51	2.66	2.51	2.27	2.30	2.26
170.0	2.32	2.27	2.07	2.27	2.32	2.31	2.25
172.5	2.12	2.01	2.10	2.01	2.12	2.50	2.46
175.0	2.18	2.23	1.96	2.23	2.18	2.50	2.61
177.5	2.34	2.11	2.03	2.11	2.34	2.70	2.64
180.0	2.23	2.23	2.23	2.23	2.23	2.23	2.23

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	2083.8	N.A.	11.70
0-30	4481.92	N.A.	25.20
0-40	7389.25	N.A.	41.50
0-60	12999.76	N.A.	73.00
0-80	16368.84	N.A.	91.90
0-90	16993.8	N.A.	95.50
10-90	16461.71	N.A.	92.50
20-40	5305.45	N.A.	29.80
20-50	8279.58	N.A.	46.50
40-70	7664.91	N.A.	43.10
60-80	3369.08	N.A.	18.90
70-80	1314.68	N.A.	7.40
80-90	624.96	N.A.	3.50
90-110	505.83	N.A.	2.80
90-120	647.89	N.A.	3.60
90-130	737.98	N.A.	4.10
90-150	805.22	N.A.	4.50
90-180	809.65	N.A.	4.50
110-180	303.82	N.A.	1.70
0-180	17803.45	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	532.09
10-20	1551.71
20-30	2398.12
30-40	2907.33
40-50	2974.12
50-60	2636.39
60-70	2054.4
70-80	1314.68
80-90	624.96
90-100	302.65
100-110	203.18
110-120	142.06
120-130	90.09
130-140	48.58
140-150	18.66
150-160	3.44
160-170	0.77
170-180	0.22

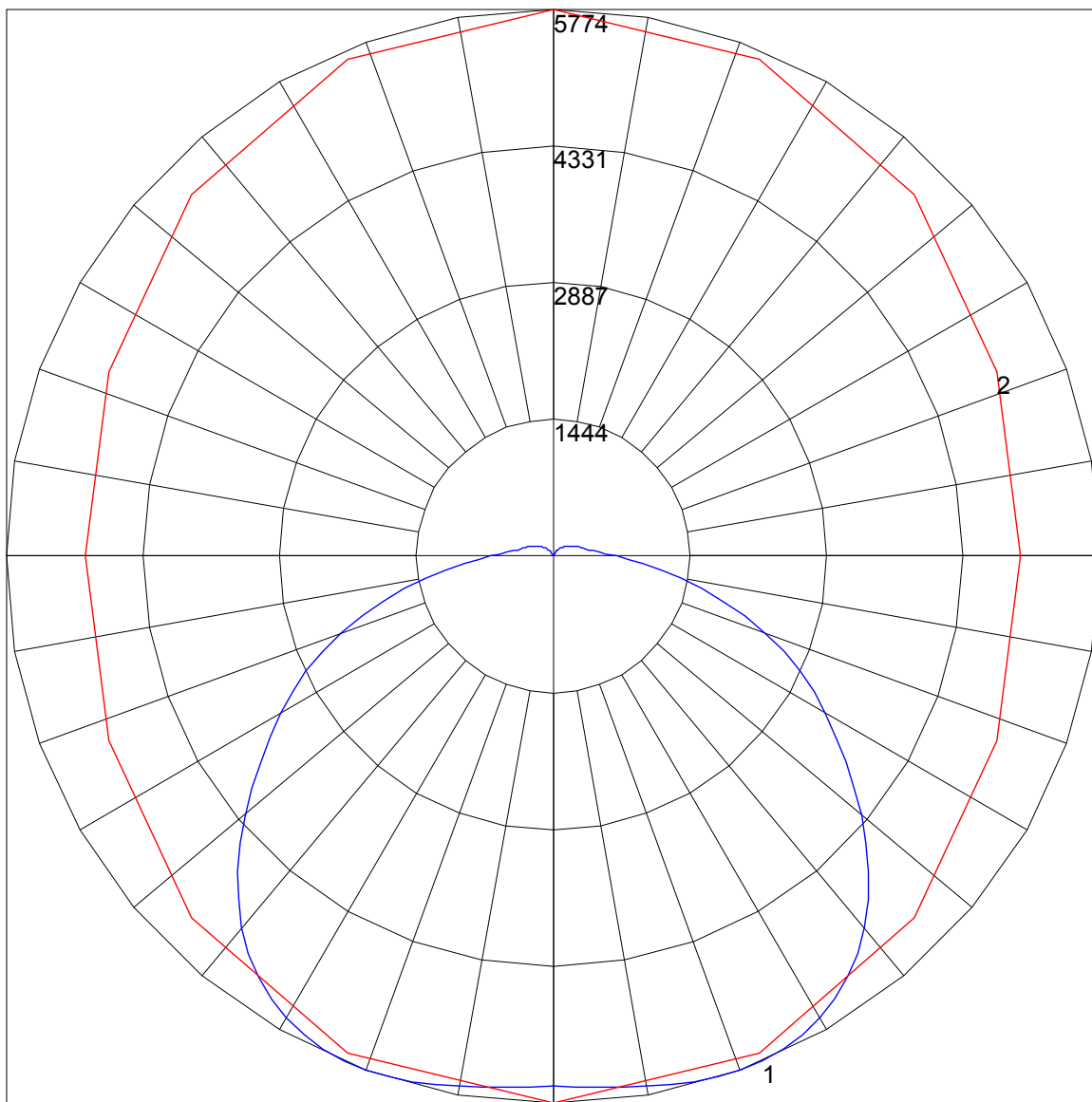
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	118	118	118	118	115	115	115	115	109	109	109	103	103	103	98	98	98	95
1	107	102	97	93	104	99	95	91	94	91	87	89	87	84	85	83	81	78
2	97	88	81	75	94	86	80	74	82	76	72	78	73	69	74	70	67	65
3	88	78	69	62	85	76	68	62	72	65	60	69	63	58	65	61	57	54
4	81	69	60	53	78	67	59	52	64	57	51	61	55	50	58	53	49	46
5	74	61	52	45	72	60	51	45	57	50	44	55	48	43	52	47	42	40
6	69	55	46	40	66	54	45	39	52	44	38	49	43	38	47	42	37	35
7	63	50	41	35	61	49	40	35	47	39	34	45	38	33	43	37	33	31
8	59	45	37	31	57	45	36	31	43	36	30	41	35	30	40	34	29	27
9	55	42	33	28	54	41	33	28	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	38	30	25	36	29	25	35	29	24	34	28	24	22

POLAR GRAPH



Maximum Candela = 5774.36 Located At Horizontal Angle = 90, Vertical Angle = 20
1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (20) (Through Max. Cd.)