

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

IESNA:LM-63-2002

[TEST] FO33721.PSO

[TESTLAB] PHILIPS DAY-BRITE PHOTOMETRIC LABORATORY

[ISSUEDATE] 10/28/14

[MANUFAC] PHILIPS DAY-BRITE - PHILIPS CFI

[LUMCAT] APX20LL40-UNV-M-LFA

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

[LAMP] LED. LUMINAIRE OUTPUT = 18334 LMS

[TESTDATE] 10/28/14

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	18334
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	109
Total Luminaire Watts	168.1
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.06
Spacing Criterion (90-270)	1.10
Spacing Criterion (Diagonal)	1.16
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	9988	8523	8395
55	7764	6200	6114
65	5974	4429	4392
75	4154	2877	2985
85	1623	1458	1831

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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	8950.72	8950.72	8950.72	8950.72	8950.72	8950.72	8950.72	8950.72	8950.72	8950.72
2.5	8927.50	8931.08	8934.90	8930.90	8913.99	8930.90	8934.90	8931.08	8927.50	8931.08
5.0	8865.56	8868.48	8887.18	8889.12	8867.69	8889.12	8887.18	8868.48	8865.56	8868.48
7.5	8762.21	8768.77	8793.43	8807.71	8790.41	8807.71	8793.43	8768.77	8762.21	8768.77
10.0	8614.51	8628.01	8663.23	8695.05	8671.60	8695.05	8663.23	8628.01	8614.51	8628.01
12.5	8423.90	8452.19	8498.83	8527.10	8515.08	8527.10	8498.83	8452.19	8423.90	8452.19
15.0	8191.68	8234.87	8291.69	8326.72	8310.36	8326.72	8291.69	8234.87	8191.68	8234.87
17.5	7920.24	7980.64	8044.37	8086.66	8075.67	8086.66	8044.37	7980.64	7920.24	7980.64
20.0	7611.63	7683.88	7759.41	7810.94	7806.77	7810.94	7759.41	7683.88	7611.63	7683.88
22.5	7270.27	7352.56	7443.16	7505.40	7499.12	7505.40	7443.16	7352.56	7270.27	7352.56
25.0	6903.23	6990.05	7095.95	7167.97	7156.59	7167.97	7095.95	6990.05	6903.23	6990.05
27.5	6516.28	6607.33	6722.59	6798.61	6794.45	6798.61	6722.59	6607.33	6516.28	6607.33
30.0	6104.79	6205.35	6331.84	6402.64	6401.00	6402.64	6331.84	6205.35	6104.79	6205.35
32.5	5680.19	5788.56	5921.80	5985.77	5997.95	5985.77	5921.80	5788.56	5680.19	5788.56
35.0	5261.07	5372.52	5503.89	5563.26	5577.30	5563.26	5503.89	5372.52	5261.07	5372.52
37.5	4853.24	4954.66	5078.14	5149.45	5167.96	5149.45	5078.14	4954.66	4853.24	4954.66
40.0	4446.57	4544.51	4668.32	4737.84	4754.31	4737.84	4668.32	4544.51	4446.57	4544.51
42.5	4051.24	4148.81	4274.47	4331.67	4344.34	4331.67	4274.47	4148.81	4051.24	4148.81
45.0	3680.72	3774.16	3894.80	3938.36	3954.51	3938.36	3894.80	3774.16	3680.72	3774.16
47.5	3334.01	3416.49	3530.28	3570.48	3589.94	3570.48	3530.28	3416.49	3334.01	3416.49
50.0	3006.14	3077.09	3184.61	3231.21	3254.14	3231.21	3184.61	3077.09	3006.14	3077.09
52.5	2702.56	2767.30	2867.85	2915.00	2933.72	2915.00	2867.85	2767.30	2702.56	2767.30
55.0	2424.64	2481.53	2571.33	2617.47	2635.99	2617.47	2571.33	2481.53	2424.64	2481.53
57.5	2163.72	2216.01	2297.79	2344.48	2362.76	2344.48	2297.79	2216.01	2163.72	2216.01
60.0	1916.47	1968.66	2045.06	2093.60	2109.32	2093.60	2045.06	1968.66	1916.47	1968.66
62.5	1686.56	1735.58	1813.91	1859.71	1878.86	1859.71	1813.91	1735.58	1686.56	1735.58
65.0	1472.82	1518.30	1594.05	1642.84	1660.13	1642.84	1594.05	1518.30	1472.82	1518.30
67.5	1269.20	1313.93	1385.91	1438.34	1457.62	1438.34	1385.91	1313.93	1269.20	1313.93
70.0	1075.83	1120.45	1193.88	1248.34	1270.11	1248.34	1193.88	1120.45	1075.83	1120.45
72.5	893.20	936.96	1014.58	1074.22	1094.72	1074.22	1014.58	936.96	893.20	936.96
75.0	720.08	764.31	846.30	912.74	935.81	912.74	846.30	764.31	720.08	764.31
77.5	555.04	603.12	688.99	760.31	788.34	760.31	688.99	603.12	555.04	603.12
80.0	401.88	453.00	547.06	624.92	655.39	624.92	547.06	453.00	401.88	453.00
82.5	265.33	319.99	423.70	508.56	539.48	508.56	423.70	319.99	265.33	319.99
85.0	153.98	213.18	319.94	407.20	438.34	407.20	319.94	213.18	153.98	213.18
87.5	77.67	142.20	245.53	329.41	360.00	329.41	245.53	142.20	77.67	142.20
90.0	49.42	99.18	189.67	268.06	297.43	268.06	189.67	99.18	49.42	99.18
92.5	47.46	79.48	151.22	221.84	248.70	221.84	151.22	79.48	47.46	79.48
95.0	46.44	72.54	127.94	187.72	212.32	187.72	127.94	72.54	46.44	72.54
97.5	45.20	68.45	114.86	164.66	185.86	164.66	114.86	68.45	45.20	68.45
100.0	43.54	64.47	108.07	149.90	167.36	149.90	108.07	64.47	43.54	64.47
102.5	41.40	60.15	102.57	141.38	155.49	141.38	102.57	60.15	41.40	60.15
105.0	38.75	55.84	98.08	135.64	148.54	135.64	98.08	55.84	38.75	55.84
107.5	36.19	51.88	92.93	130.14	143.09	130.14	92.93	51.88	36.19	51.88
110.0	33.81	47.21	87.91	124.02	137.03	124.02	87.91	47.21	33.81	47.21
112.5	31.11	42.80	82.62	117.94	130.44	117.94	82.62	42.80	31.11	42.80
115.0	27.95	38.01	76.47	111.00	123.43	111.00	76.47	38.01	27.95	38.01
117.5	25.25	33.32	70.85	104.49	116.58	104.49	70.85	33.32	25.25	33.32
120.0	22.64	28.80	64.79	97.63	109.63	97.63	64.79	28.80	22.64	28.80
122.5	20.14	24.41	59.18	90.64	101.39	90.64	59.18	24.41	20.14	24.41
125.0	17.64	20.26	52.94	83.04	93.72	83.04	52.94	20.26	17.64	20.26
127.5	15.38	16.19	47.08	76.06	87.03	76.06	47.08	16.19	15.38	16.19
130.0	13.42	12.88	40.86	69.72	79.60	69.72	40.86	12.88	13.42	12.88
132.5	11.47	10.81	34.95	62.10	71.44	62.10	34.95	10.81	11.47	10.81

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CANDELA TABULATION - (Cont.)

135.0	9.95	8.78	29.02	55.31	63.41	55.31	29.02	8.78	9.95	8.78
137.5	8.50	7.16	23.33	47.77	55.87	47.77	23.33	7.16	8.50	7.16
140.0	7.00	5.74	18.17	40.62	47.77	40.62	18.17	5.74	7.00	5.74
142.5	5.76	4.68	13.60	33.78	39.90	33.78	13.60	4.68	5.76	4.68
145.0	4.52	4.23	9.55	26.99	32.55	26.99	9.55	4.23	4.52	4.23
147.5	3.75	3.48	6.56	20.76	25.82	20.76	6.56	3.48	3.75	3.48
150.0	2.97	3.21	5.13	15.03	19.41	15.03	5.13	3.21	2.97	3.21
152.5	2.88	3.03	4.09	10.75	13.77	10.75	4.09	3.03	2.88	3.03
155.0	2.84	3.27	3.80	7.25	10.43	7.25	3.80	3.27	2.84	3.27
157.5	3.10	3.11	3.56	5.58	7.62	5.58	3.56	3.11	3.10	3.11
160.0	3.07	3.30	3.57	4.37	5.45	4.37	3.57	3.30	3.07	3.30
162.5	3.26	3.41	3.57	4.14	4.18	4.14	3.57	3.41	3.26	3.41
165.0	3.59	3.48	3.57	4.03	4.01	4.03	3.57	3.48	3.59	3.48
167.5	3.46	3.30	3.66	3.70	3.80	3.70	3.66	3.30	3.46	3.30
170.0	3.23	3.41	3.59	3.57	3.62	3.57	3.59	3.41	3.23	3.41
172.5	3.47	3.52	3.48	3.57	3.80	3.57	3.48	3.52	3.47	3.52
175.0	3.66	3.46	3.51	3.79	3.81	3.79	3.51	3.46	3.66	3.46
177.5	4.06	3.82	3.44	3.49	3.65	3.49	3.44	3.82	4.06	3.82
180.0	3.81	3.81	3.81	3.81	3.81	3.81	3.81	3.81	3.81	3.81

**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	8950.72	8950.72	8950.72	8950.72	8950.72	8950.72	8950.72
2.5	8934.90	8930.90	8913.99	8930.90	8934.90	8931.08	8927.50
5.0	8887.18	8889.12	8867.69	8889.12	8887.18	8868.48	8865.56
7.5	8793.43	8807.71	8790.41	8807.71	8793.43	8768.77	8762.21
10.0	8663.23	8695.05	8671.60	8695.05	8663.23	8628.01	8614.51
12.5	8498.83	8527.10	8515.08	8527.10	8498.83	8452.19	8423.90
15.0	8291.69	8326.72	8310.36	8326.72	8291.69	8234.87	8191.68
17.5	8044.37	8086.66	8075.67	8086.66	8044.37	7980.64	7920.24
20.0	7759.41	7810.94	7806.77	7810.94	7759.41	7683.88	7611.63
22.5	7443.16	7505.40	7499.12	7505.40	7443.16	7352.56	7270.27
25.0	7095.95	7167.97	7156.59	7167.97	7095.95	6990.05	6903.23
27.5	6722.59	6798.61	6794.45	6798.61	6722.59	6607.33	6516.28
30.0	6331.84	6402.64	6401.00	6402.64	6331.84	6205.35	6104.79
32.5	5921.80	5985.77	5997.95	5985.77	5921.80	5788.56	5680.19
35.0	5503.89	5563.26	5577.30	5563.26	5503.89	5372.52	5261.07
37.5	5078.14	5149.45	5167.96	5149.45	5078.14	4954.66	4853.24
40.0	4668.32	4737.84	4754.31	4737.84	4668.32	4544.51	4446.57
42.5	4274.47	4331.67	4344.34	4331.67	4274.47	4148.81	4051.24
45.0	3894.80	3938.36	3954.51	3938.36	3894.80	3774.16	3680.72
47.5	3530.28	3570.48	3589.94	3570.48	3530.28	3416.49	3334.01
50.0	3184.61	3231.21	3254.14	3231.21	3184.61	3077.09	3006.14
52.5	2867.85	2915.00	2933.72	2915.00	2867.85	2767.30	2702.56
55.0	2571.33	2617.47	2635.99	2617.47	2571.33	2481.53	2424.64
57.5	2297.79	2344.48	2362.76	2344.48	2297.79	2216.01	2163.72
60.0	2045.06	2093.60	2109.32	2093.60	2045.06	1968.66	1916.47
62.5	1813.91	1859.71	1878.86	1859.71	1813.91	1735.58	1686.56
65.0	1594.05	1642.84	1660.13	1642.84	1594.05	1518.30	1472.82
67.5	1385.91	1438.34	1457.62	1438.34	1385.91	1313.93	1269.20
70.0	1193.88	1248.34	1270.11	1248.34	1193.88	1120.45	1075.83
72.5	1014.58	1074.22	1094.72	1074.22	1014.58	936.96	893.20
75.0	846.30	912.74	935.81	912.74	846.30	764.31	720.08
77.5	688.99	760.31	788.34	760.31	688.99	603.12	555.04
80.0	547.06	624.92	655.39	624.92	547.06	453.00	401.88

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CANDELA TABULATION - (Cont.)

82.5	423.70	508.56	539.48	508.56	423.70	319.99	265.33
85.0	319.94	407.20	438.34	407.20	319.94	213.18	153.98
87.5	245.53	329.41	360.00	329.41	245.53	142.20	77.67
90.0	189.67	268.06	297.43	268.06	189.67	99.18	49.42
92.5	151.22	221.84	248.70	221.84	151.22	79.48	47.46
95.0	127.94	187.72	212.32	187.72	127.94	72.54	46.44
97.5	114.86	164.66	185.86	164.66	114.86	68.45	45.20
100.0	108.07	149.90	167.36	149.90	108.07	64.47	43.54
102.5	102.57	141.38	155.49	141.38	102.57	60.15	41.40
105.0	98.08	135.64	148.54	135.64	98.08	55.84	38.75
107.5	92.93	130.14	143.09	130.14	92.93	51.88	36.19
110.0	87.91	124.02	137.03	124.02	87.91	47.21	33.81
112.5	82.62	117.94	130.44	117.94	82.62	42.80	31.11
115.0	76.47	111.00	123.43	111.00	76.47	38.01	27.95
117.5	70.85	104.49	116.58	104.49	70.85	33.32	25.25
120.0	64.79	97.63	109.63	97.63	64.79	28.80	22.64
122.5	59.18	90.64	101.39	90.64	59.18	24.41	20.14
125.0	52.94	83.04	93.72	83.04	52.94	20.26	17.64
127.5	47.08	76.06	87.03	76.06	47.08	16.19	15.38
130.0	40.86	69.72	79.60	69.72	40.86	12.88	13.42
132.5	34.95	62.10	71.44	62.10	34.95	10.81	11.47
135.0	29.02	55.31	63.41	55.31	29.02	8.78	9.95
137.5	23.33	47.77	55.87	47.77	23.33	7.16	8.50
140.0	18.17	40.62	47.77	40.62	18.17	5.74	7.00
142.5	13.60	33.78	39.90	33.78	13.60	4.68	5.76
145.0	9.55	26.99	32.55	26.99	9.55	4.23	4.52
147.5	6.56	20.76	25.82	20.76	6.56	3.48	3.75
150.0	5.13	15.03	19.41	15.03	5.13	3.21	2.97
152.5	4.09	10.75	13.77	10.75	4.09	3.03	2.88
155.0	3.80	7.25	10.43	7.25	3.80	3.27	2.84
157.5	3.56	5.58	7.62	5.58	3.56	3.11	3.10
160.0	3.57	4.37	5.45	4.37	3.57	3.30	3.07
162.5	3.57	4.14	4.18	4.14	3.57	3.41	3.26
165.0	3.57	4.03	4.01	4.03	3.57	3.48	3.59
167.5	3.66	3.70	3.80	3.70	3.66	3.30	3.46
170.0	3.59	3.57	3.62	3.57	3.59	3.41	3.23
172.5	3.48	3.57	3.80	3.57	3.48	3.52	3.47
175.0	3.51	3.79	3.81	3.79	3.51	3.46	3.66
177.5	3.44	3.49	3.65	3.49	3.44	3.82	4.06
180.0	3.81	3.81	3.81	3.81	3.81	3.81	3.81

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	3165.03	N.A.	17.30
0-30	6409.57	N.A.	35.00
0-40	9823.04	N.A.	53.60
0-60	15098.42	N.A.	82.40
0-80	17564.26	N.A.	95.80
0-90	17923.09	N.A.	97.80
10-90	17082.68	N.A.	93.20
20-40	6658.01	N.A.	36.30
20-50	9640.58	N.A.	52.60
40-70	6848.49	N.A.	37.40
60-80	2465.84	N.A.	13.40
70-80	892.74	N.A.	4.90
80-90	358.83	N.A.	2.00
90-110	249.11	N.A.	1.40
90-120	324.06	N.A.	1.80
90-130	371.97	N.A.	2.00
90-150	407.09	N.A.	2.20
90-180	411.14	N.A.	2.20
110-180	162.02	N.A.	0.90
0-180	18334.23	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	840.41
10-20	2324.62
20-30	3244.54
30-40	3413.47
40-50	2982.58
50-60	2292.81
60-70	1573.11
70-80	892.74
80-90	358.83
90-100	147.44
100-110	101.67
110-120	74.95
120-130	47.91
130-140	25.40
140-150	9.72
150-160	2.66
160-170	1.05
170-180	0.34

IES INDOOR REPORT

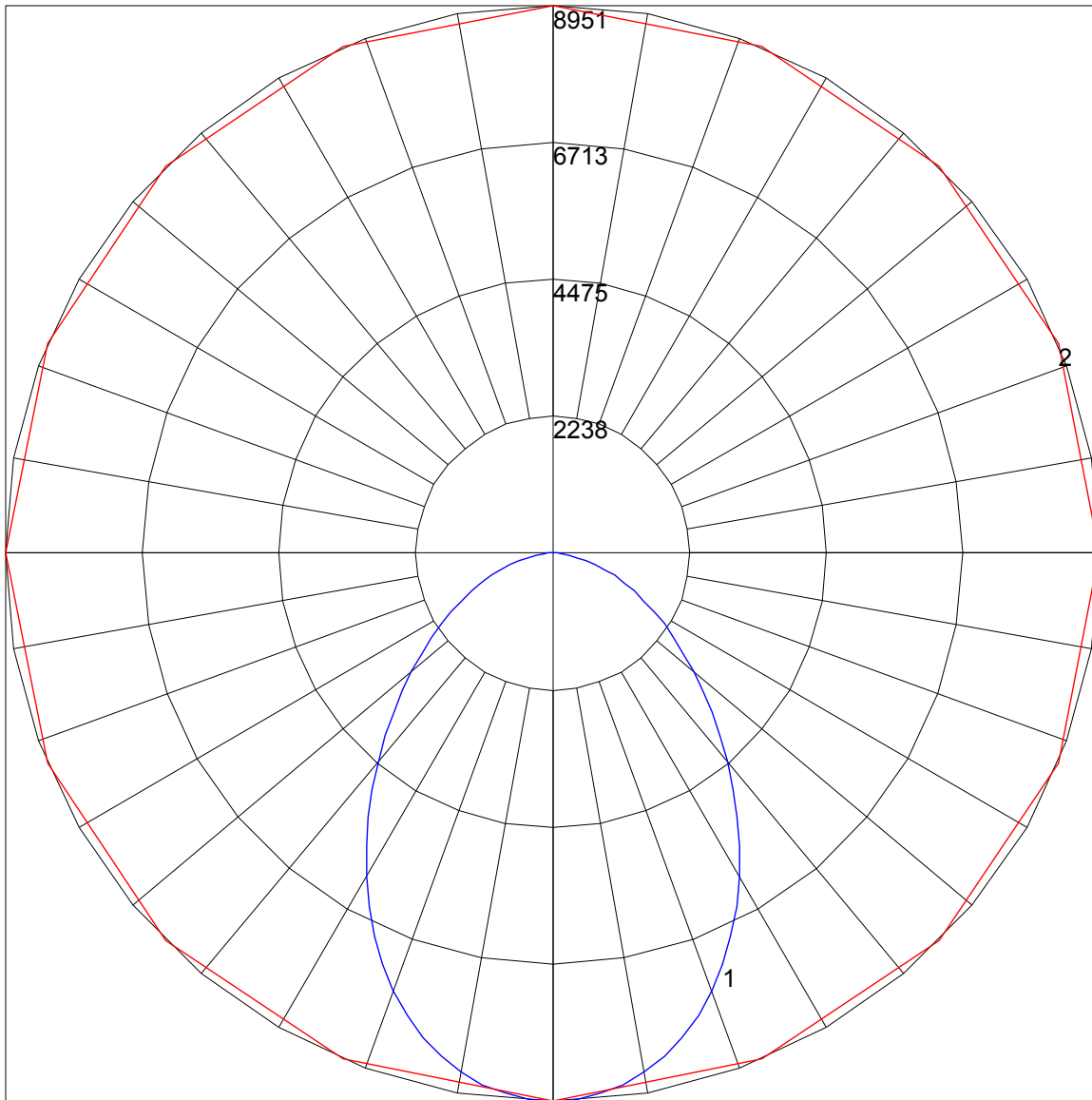
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	119	119	119	119	115	115	115	115	110	110	110	105	105	105	100	100	100	98
1	109	105	101	97	106	102	99	96	98	95	92	93	91	89	90	88	86	84
2	100	93	87	81	98	91	85	80	87	82	78	83	79	76	80	77	74	72
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	72	68	64	62
4	85	74	66	60	83	73	65	59	70	63	58	67	62	57	65	60	56	54
5	79	67	59	53	77	66	58	52	63	57	51	61	55	51	59	54	50	48
6	73	61	53	47	71	60	52	46	58	51	46	56	50	45	54	49	45	43
7	68	56	47	42	67	55	47	42	53	46	41	52	45	41	50	44	40	38
8	64	51	43	38	62	50	43	38	49	42	37	48	41	37	46	41	37	35
9	60	47	40	34	58	47	39	34	45	39	34	44	38	34	43	37	33	32
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	40	35	31	29

POLAR GRAPH



Maximum Candela = 8950.72 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)