

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: METALUX

Report Number: P893564

Luminaire Tested: 4MB-4SL-RNDU-UNV-L850

Issue Date: 11/11/2024

**Test Information**

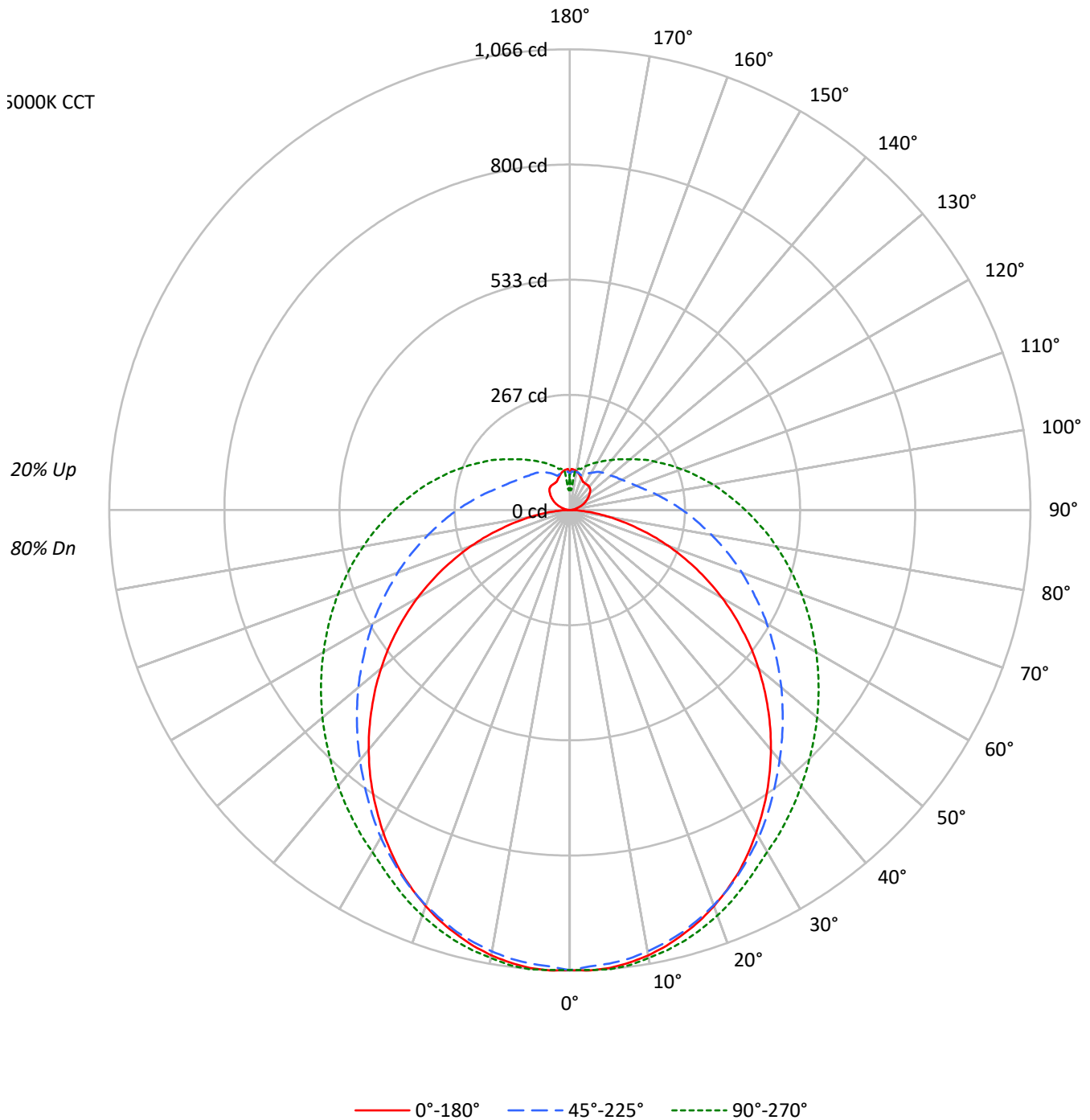
Test Method: LM-79-2019  
Report Number: P893564  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2403-327-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-4SL-RNDU-UNV-L850  
Description: 4000 Lumen 4FT MICROBAY LINEAR BAY with ROUND FROSTED LENS WITH UPLIGHT, 80CRI, 5  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4477.0 lumens  
Efficiency: N/A  
Efficacy: 150.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37  
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 3.98' x H: 0.21')  
CIE Type: Semi-Direct  
  
Input Watts (W): 29.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 5.5  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

TEST NUMBER: P893564  
CATALOG NUMBER: 4MB-4SL-RNDU-UNV-L850

### Luminous Intensity Polar Plot





TEST NUMBER: P893564  
 CATALOG NUMBER: 4MB-4SL-RNDU-UNV-L850

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20					20					20					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	50	30	10	0	
RCR																						
0	114	114	114	114	109	109	109	109	100	100	100	91	91	91	83	83	83	80				
1	102	96	91	86	97	92	87	83	84	80	76	76	73	70	69	67	65	61				
2	92	82	75	68	87	79	72	66	72	66	61	65	61	57	60	56	53	49				
3	83	72	63	56	79	69	61	54	63	56	51	57	52	47	52	48	44	41				
4	76	63	54	47	72	60	52	45	55	48	43	51	45	40	46	41	37	34				
5	69	56	47	40	66	54	45	39	49	42	37	45	39	34	41	36	32	29				
6	64	50	41	35	61	48	40	34	44	37	32	41	35	30	37	32	28	26				
7	59	46	37	30	56	44	35	30	40	33	28	37	31	26	34	29	25	23				
8	55	41	33	27	52	40	32	26	37	30	25	34	28	24	31	26	22	20				
9	51	38	30	24	49	36	29	23	34	27	22	31	25	21	29	24	20	18				
10	48	35	27	22	46	34	26	21	31	25	20	29	23	19	27	22	18	16				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	7573	7573	7573
5°	7560	7253	7268
10°	7489	6971	6933
15°	7379	6685	6622
20°	7247	6383	6304
25°	7086	6080	5985
30°	6881	5774	5701
35°	6669	5459	5493
40°	6442	5174	5303
45°	6198	4922	5135
50°	5941	4698	5005
55°	5646	4489	4891
60°	5311	4319	4806
65°	4906	4169	4758
70°	4403	4075	4743
75°	3725	4007	4763
80°	2913	4007	4839
85°	1864	4111	4997

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6198 cd/sqm



TEST NUMBER: P893564  
 CATALOG NUMBER: 4MB-4SL-RNDU-UNV-L850

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.7	2.2
10°-20°	287.2	6.4
20°-30°	431.1	9.6
30°-40°	518.4	11.6
40°-50°	549.3	12.3
50°-60°	529.0	11.8
60°-70°	468.1	10.5
70°-80°	384.0	8.6
80°-90°	298.0	6.7
90°-100°	231.3	5.2
100°-110°	183.3	4.1
110°-120°	146.0	3.3
120°-130°	116.0	2.6
130°-140°	90.5	2.0
140°-150°	66.6	1.5
150°-160°	44.1	1.0
160°-170°	25.4	0.6
170°-180°	8.2	0.2
0°-30°	819.0	18.3
0°-40°	1337.4	29.9
0°-60°	2415.7	54.0
0°-90°	3565.8	79.6
90°-120°	560.5	12.5
90°-150°	833.6	18.6
90°-180°	911.0	20.3
0°-180°	4477.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1064	1064	1064	1064	1064	
5°	1063	1064	1053	1061	1066	101
15°	1016	1017	1011	1026	1031	286
25°	925	928	928	951	957	425
35°	796	806	815	858	875	498
45°	648	663	697	763	790	500
55°	489	514	581	667	703	438
65°	324	369	473	572	615	321
75°	162	243	377	483	528	173
85°	36	147	295	402	445	42
90°	1	116	260	365	406	3
95°	5	95	230	329	370	5
105°	18	77	181	269	305	19
115°	36	74	151	220	249	36
125°	53	77	132	181	204	47
135°	67	82	118	152	166	51
145°	71	81	107	131	139	44
155°	72	84	92	111	118	34
165°	85	90	87	87	98	24
175°	94	93	89	74	50	9
180°	82	82	82	82	82	



TEST NUMBER: P893564  
 CATALOG NUMBER: 4MB-4SL-RNDU-UNV-L850

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1064.4	1064.4	1064.4	1064.4	1064.4	1064.4	1064.4	1064.4	1064.4	1064.4	1064.4
2.5°	1066.4	1065.4	1067.5	1069.5	1075.6	1067.5	1071.5	1060.4	1061.4	1062.4	1057.3
5°	1063.4	1060.4	1063.4	1065.4	1070.5	1064.4	1068.5	1056.3	1057.3	1059.4	1053.3
7.5°	1056.3	1053.3	1055.3	1057.3	1062.4	1056.3	1061.4	1049.2	1051.2	1052.3	1047.2
10°	1046.2	1042.1	1044.2	1047.2	1051.2	1046.2	1050.2	1039.1	1040.1	1042.1	1037.1
12.5°	1033.0	1029.0	1031.0	1033.0	1038.1	1033.0	1037.1	1025.9	1028.0	1030.0	1024.9
15°	1015.8	1011.8	1013.8	1015.8	1019.9	1016.8	1020.9	1009.7	1011.8	1015.8	1010.7
17.5°	997.6	991.5	993.5	996.6	1000.6	998.6	1001.6	992.5	993.5	997.6	992.5
20°	975.3	969.2	971.2	974.3	978.3	977.3	979.3	971.2	973.3	978.3	973.3
22.5°	951.0	944.9	946.9	951.0	954.0	954.0	955.0	949.0	951.0	956.0	952.0
25°	924.7	918.6	920.6	924.7	927.7	927.7	929.7	923.6	926.7	931.7	927.7
27.5°	894.3	891.2	891.2	895.3	897.3	899.3	900.3	895.3	899.3	904.4	901.4
30°	862.9	858.8	860.8	865.9	865.9	870.0	870.0	865.9	871.0	877.1	875.0
32.5°	829.5	826.4	827.4	833.5	833.5	838.6	837.6	835.5	840.6	847.7	845.7
35°	796.0	793.0	794.0	800.1	800.1	806.2	804.1	804.1	809.2	817.3	815.3
37.5°	760.6	758.6	759.6	765.6	765.6	771.7	769.7	770.7	776.8	785.9	784.9
40°	724.1	722.1	724.1	729.2	731.2	736.3	734.3	736.3	744.4	752.5	755.5
42.5°	686.7	685.6	687.7	692.7	694.8	699.8	698.8	701.8	709.9	722.1	726.2
45°	648.2	648.2	650.2	655.3	657.3	663.4	662.3	666.4	676.5	689.7	696.8
47.5°	609.7	610.7	611.7	617.8	617.8	627.9	624.9	631.0	644.1	659.3	667.4
50°	570.2	572.2	573.2	578.3	580.3	589.4	587.4	597.5	611.7	627.9	639.1
52.5°	530.7	532.7	534.7	538.8	540.8	552.0	549.9	563.1	580.3	597.5	609.7
55°	489.2	493.2	494.2	499.3	502.3	513.5	513.5	528.7	546.9	566.1	581.3
57.5°	448.7	452.7	453.7	459.8	463.8	477.0	479.0	496.3	516.5	535.8	554.0
60°	407.1	412.2	413.2	419.3	426.4	440.6	443.6	462.8	485.1	505.4	526.6
62.5°	365.6	370.7	372.7	378.8	389.9	404.1	409.2	431.4	454.7	477.0	500.3
65°	324.1	329.1	332.2	340.3	353.5	368.6	375.7	399.0	425.4	448.7	473.0
67.5°	282.6	288.6	292.7	302.8	320.0	336.2	343.3	369.7	397.0	422.3	447.6
70°	242.1	248.1	253.2	266.4	286.6	302.8	311.9	340.3	368.6	396.0	424.3
72.5°	202.6	208.6	215.7	231.9	254.2	272.4	282.6	311.9	343.3	370.7	400.0
75°	162.0	169.1	177.2	199.5	224.8	243.1	254.2	285.6	318.0	345.4	376.7
77.5°	125.6	132.7	144.8	167.1	195.5	215.7	227.9	261.3	294.7	322.1	354.5
80°	92.2	99.3	115.5	139.8	169.1	188.4	203.6	238.0	272.4	300.8	333.2
82.5°	62.8	69.9	89.1	115.5	146.9	166.1	180.3	216.7	251.2	280.5	312.9
85°	36.5	46.6	66.8	95.2	127.6	146.9	161.0	198.5	231.9	261.3	294.7
87.5°	16.2	28.4	50.6	79.0	111.4	129.6	144.8	179.3	214.7	244.1	277.5
90°	1.0	16.2	39.5	66.8	98.2	115.5	129.6	164.1	197.5	227.9	260.3
92.5°	2.0	11.1	32.4	57.7	87.1	104.3	118.5	150.9	182.3	213.7	245.1
95°	5.1	11.1	28.4	51.7	79.0	95.2	108.4	139.8	169.1	199.5	229.9
97.5°	8.1	12.2	27.3	48.6	72.9	88.1	100.3	129.6	159.0	186.3	216.7
100°	11.1	15.2	27.3	46.6	68.9	83.0	94.2	121.5	148.9	174.2	204.6
102.5°	14.2	18.2	29.4	46.6	66.8	79.0	90.1	115.5	140.8	164.1	192.4
105°	18.2	21.3	31.4	46.6	64.8	77.0	86.1	109.4	133.7	156.0	181.3
107.5°	22.3	24.3	33.4	47.6	64.8	74.9	84.1	105.3	127.6	147.9	172.2
110°	27.3	28.4	36.5	49.6	64.8	73.9	82.0	102.3	122.5	141.8	164.1



TEST NUMBER: P893564  
 CATALOG NUMBER: 4MB-4SL-RNDU-UNV-L850

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	31.4	31.4	39.5	51.7	64.8	73.9	81.0	99.3	118.5	135.7	157.0
115°	36.5	36.5	42.5	53.7	65.8	73.9	81.0	98.2	115.5	130.6	150.9
117.5°	40.5	40.5	46.6	55.7	67.9	74.9	81.0	96.2	112.4	126.6	144.8
120°	44.6	44.6	48.6	57.7	68.9	76.0	81.0	95.2	109.4	123.6	139.8
122.5°	48.6	48.6	51.7	60.8	69.9	76.0	81.0	94.2	107.4	119.5	134.7
125°	52.7	52.7	54.7	62.8	71.9	77.0	82.0	94.2	106.3	116.5	131.7
127.5°	56.7	55.7	58.7	65.8	72.9	78.0	83.0	94.2	104.3	114.4	127.6
130°	59.8	58.7	62.8	67.9	74.9	79.0	83.0	93.2	103.3	112.4	123.6
132.5°	63.8	61.8	66.8	68.9	77.0	81.0	84.1	93.2	102.3	110.4	121.5
135°	66.8	64.8	69.9	71.9	78.0	82.0	85.1	93.2	101.3	109.4	118.5
137.5°	68.9	67.9	72.9	74.9	79.0	83.0	86.1	93.2	100.3	107.4	116.5
140°	69.9	68.9	72.9	77.0	79.0	83.0	85.1	92.2	99.3	105.3	113.4
142.5°	70.9	70.9	73.9	78.0	79.0	82.0	85.1	91.1	97.2	102.3	111.4
145°	70.9	70.9	73.9	79.0	80.0	81.0	83.0	89.1	94.2	99.3	107.4
147.5°	70.9	70.9	74.9	79.0	81.0	82.0	81.0	87.1	92.2	96.2	103.3
150°	70.9	70.9	74.9	79.0	82.0	83.0	82.0	85.1	89.1	93.2	99.3
152.5°	71.9	71.9	74.9	79.0	82.0	83.0	83.0	83.0	86.1	90.1	96.2
155°	71.9	72.9	74.9	81.0	83.0	84.1	84.1	84.1	83.0	87.1	92.2
157.5°	74.9	76.0	77.0	82.0	84.1	85.1	85.1	85.1	84.1	83.0	88.1
160°	78.0	79.0	80.0	84.1	86.1	87.1	87.1	87.1	85.1	84.1	84.1
162.5°	81.0	83.0	83.0	85.1	87.1	88.1	88.1	89.1	87.1	86.1	85.1
165°	85.1	86.1	86.1	87.1	89.1	90.1	89.1	90.1	89.1	88.1	87.1
167.5°	88.1	89.1	89.1	90.1	90.1	91.1	91.1	91.1	90.1	89.1	89.1
170°	91.1	92.2	92.2	92.2	92.2	92.2	92.2	92.2	91.1	89.1	89.1
172.5°	93.2	94.2	94.2	93.2	93.2	93.2	93.2	92.2	90.1	89.1	89.1
175°	94.2	95.2	95.2	94.2	93.2	93.2	93.2	92.2	90.1	89.1	89.1
177.5°	95.2	96.2	95.2	95.2	93.2	93.2	93.2	93.2	91.1	90.1	89.1
180°	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0



TEST NUMBER: P893564  
 CATALOG NUMBER: 4MB-4SL-RNDU-UNV-L850

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	1064.4	1064.4	1064.4	1064.4	1064.4	1064.4	1064.4	1064.4	1064.4	1064.4
2.5°	1063.4	1051.2	1059.4	1060.4	1064.4	1060.4	1063.4	1060.4	1068.5	1065.4
5°	1059.4	1048.2	1055.3	1056.3	1061.4	1056.3	1061.4	1059.4	1069.5	1066.4
7.5°	1052.3	1043.1	1049.2	1050.2	1056.3	1051.2	1056.3	1054.3	1066.4	1062.4
10°	1042.1	1035.0	1041.1	1042.1	1048.2	1043.1	1047.2	1045.2	1058.3	1052.3
12.5°	1031.0	1024.9	1030.0	1031.0	1038.1	1033.0	1038.1	1036.1	1049.2	1043.1
15°	1014.8	1011.8	1016.8	1018.8	1025.9	1021.9	1026.9	1024.9	1039.1	1031.0
17.5°	998.6	996.6	1001.6	1003.6	1011.8	1006.7	1011.8	1009.7	1023.9	1015.8
20°	978.3	977.3	982.4	985.4	992.5	987.4	993.5	991.5	1006.7	998.6
22.5°	957.1	957.1	961.1	964.2	971.2	967.2	973.3	972.3	987.4	979.3
25°	933.8	934.8	938.8	942.9	951.0	947.9	953.0	953.0	967.2	957.1
27.5°	907.4	912.5	915.5	920.6	927.7	924.7	929.7	930.7	944.9	934.8
30°	880.1	887.2	890.2	896.3	902.4	902.4	907.4	909.5	923.6	913.5
32.5°	851.7	859.8	863.9	872.0	880.1	880.1	887.2	890.2	904.4	895.3
35°	823.4	834.5	839.6	849.7	857.8	858.8	865.9	870.0	884.1	875.0
37.5°	796.0	810.2	815.3	827.4	834.5	836.5	844.6	849.7	862.9	854.8
40°	767.7	784.9	791.0	804.1	810.2	814.3	822.4	828.4	840.6	833.5
42.5°	740.3	759.6	765.6	779.8	786.9	791.0	799.1	807.2	819.3	812.2
45°	713.0	734.3	741.3	756.5	762.6	768.7	777.8	784.9	796.0	790.0
47.5°	686.7	708.9	716.0	732.2	739.3	746.4	754.5	764.6	774.8	768.7
50°	659.3	682.6	691.7	708.9	715.0	723.1	733.2	742.4	752.5	747.4
52.5°	633.0	657.3	666.4	684.6	691.7	699.8	709.9	720.1	729.2	725.1
55°	604.6	631.0	641.1	660.3	667.4	675.5	686.7	697.8	705.9	702.9
57.5°	578.3	605.6	615.8	637.0	643.1	653.2	664.4	676.5	683.6	680.6
60°	552.0	579.3	591.5	612.7	619.8	629.9	641.1	654.2	660.3	658.3
62.5°	525.6	554.0	567.1	589.4	595.5	606.6	619.8	631.0	637.0	636.0
65°	501.3	528.7	543.9	566.1	572.2	584.4	596.5	608.7	614.7	614.7
67.5°	476.0	505.4	520.6	543.9	548.9	562.1	575.2	587.4	592.5	592.5
70°	452.7	481.1	498.3	521.6	526.6	538.8	553.0	566.1	570.2	571.2
72.5°	429.4	457.8	476.0	500.3	505.4	517.5	530.7	544.9	547.9	548.9
75°	407.1	435.5	453.7	478.0	483.1	495.2	509.4	522.6	526.6	527.6
77.5°	384.8	413.2	433.5	456.8	461.8	474.0	488.2	501.3	504.4	506.4
80°	364.6	391.9	411.2	436.5	441.6	453.7	466.9	480.0	482.1	485.1
82.5°	344.3	371.7	391.9	416.2	421.3	433.5	446.6	459.8	461.8	465.9
85°	325.1	352.4	372.7	396.0	402.1	413.2	427.4	439.5	441.6	444.6
87.5°	307.9	333.2	354.5	376.7	382.8	394.0	408.1	420.3	421.3	425.4
90°	289.7	315.0	336.2	358.5	364.6	374.7	388.9	401.1	403.1	406.1
92.5°	274.5	297.8	320.0	341.3	346.4	357.5	370.7	382.8	384.8	387.9
95°	258.3	281.5	303.8	324.1	329.1	340.3	352.4	364.6	366.6	369.7
97.5°	244.1	266.4	287.6	307.9	312.9	323.1	336.2	347.4	349.4	353.5
100°	230.9	252.2	274.5	292.7	297.8	307.9	320.0	331.2	333.2	337.3
102.5°	218.8	239.0	260.3	277.5	283.6	292.7	304.8	315.0	317.0	320.0
105°	207.6	226.9	247.1	263.3	269.4	278.5	289.7	299.8	301.8	304.8
107.5°	196.5	214.7	233.9	250.2	255.2	263.3	274.5	284.6	286.6	290.7
110°	186.3	204.6	222.8	238.0	244.1	250.2	261.3	270.4	272.4	275.5





TEST NUMBER: P893564  
 CATALOG NUMBER: 4MB-4SL-RNDU-UNV-L850

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	177.2	193.4	211.7	225.8	230.9	238.0	247.1	256.2	258.3	262.3
115°	169.1	184.3	202.6	215.7	219.8	225.8	236.0	244.1	246.1	249.1
117.5°	162.0	175.2	191.4	204.6	209.6	214.7	223.8	230.9	233.9	236.0
120°	156.0	168.1	182.3	194.5	200.5	204.6	212.7	219.8	222.8	224.8
122.5°	149.9	161.0	174.2	185.3	190.4	193.4	202.6	208.6	211.7	214.7
125°	144.8	155.0	167.1	176.2	181.3	184.3	192.4	198.5	201.5	203.6
127.5°	139.8	148.9	161.0	168.1	173.2	175.2	182.3	188.4	191.4	192.4
130°	134.7	143.8	153.9	161.0	165.1	168.1	174.2	178.2	181.3	182.3
132.5°	130.6	138.7	147.9	155.0	159.0	160.0	166.1	170.1	173.2	174.2
135°	127.6	133.7	142.8	148.9	151.9	153.9	159.0	162.0	165.1	166.1
137.5°	123.6	129.6	137.7	141.8	145.8	146.9	151.9	155.0	158.0	159.0
140°	120.5	125.6	132.7	136.7	140.8	140.8	144.8	147.9	150.9	150.9
142.5°	117.5	122.5	128.6	132.7	135.7	135.7	139.8	141.8	144.8	144.8
145°	113.4	118.5	124.6	127.6	130.6	130.6	133.7	135.7	138.7	138.7
147.5°	109.4	114.4	120.5	122.5	125.6	125.6	128.6	130.6	132.7	132.7
150°	104.3	108.4	115.5	118.5	121.5	121.5	123.6	125.6	127.6	127.6
152.5°	100.3	103.3	109.4	113.4	116.5	116.5	118.5	120.5	122.5	122.5
155°	95.2	98.2	103.3	108.4	111.4	112.4	114.4	115.5	117.5	117.5
157.5°	91.1	94.2	98.2	102.3	105.3	107.4	110.4	111.4	112.4	112.4
160°	86.1	88.1	92.2	96.2	99.3	101.3	106.3	107.4	108.4	108.4
162.5°	84.1	84.1	86.1	89.1	92.2	93.2	98.2	102.3	104.3	103.3
165°	85.1	84.1	84.1	85.1	87.1	88.1	91.1	97.2	99.3	98.2
167.5°	87.1	85.1	84.1	84.1	86.1	86.1	89.1	94.2	100.3	98.2
170°	87.1	84.1	82.0	82.0	83.0	83.0	85.1	88.1	94.2	95.2
172.5°	86.1	84.1	81.0	77.0	78.0	77.0	76.0	78.0	79.0	89.1
175°	87.1	84.1	81.0	76.0	73.9	70.9	65.8	61.8	60.8	49.6
177.5°	86.1	83.0	79.0	74.9	72.9	68.9	62.8	55.7	51.7	45.6
180°	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0



TEST NUMBER: P893564  
 CATALOG NUMBER: 4MB-4SL-RNDU-UNV-L850

**CIE UGR TABLE:**

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	13.96	15.27	14.61	15.94	16.71	17.51	18.82	18.15	19.49	20.26
	3H	15.31	16.51	15.97	17.19	17.99	20.43	21.63	21.08	22.30	23.10
	4H	15.72	16.86	16.39	17.54	18.36	21.90	23.04	22.58	23.73	24.54
	6H	15.93	17.00	16.62	17.69	18.52	23.46	24.52	24.15	25.22	26.05
	8H	15.97	16.99	16.66	17.70	18.54	24.27	25.29	24.97	26.01	26.84
	12H	15.97	16.95	16.68	17.66	18.52	25.15	26.13	25.85	26.84	27.70
4H	2H	15.11	16.25	15.78	16.93	17.75	17.83	18.97	18.51	19.66	20.47
	3H	16.75	17.73	17.44	18.45	19.28	20.98	21.96	21.67	22.68	23.51
	4H	17.32	18.22	18.02	18.94	19.81	22.63	23.53	23.33	24.26	25.12
	6H	17.66	18.46	18.38	19.21	20.07	24.40	25.20	25.12	25.95	26.82
	8H	17.73	18.48	18.46	19.23	20.12	25.34	26.09	26.06	26.83	27.72
	12H	17.76	18.45	18.51	19.21	20.10	26.36	27.04	27.11	27.81	28.70
8H	4H	18.40	19.16	19.13	19.90	20.79	22.80	23.56	23.53	24.30	25.19
	6H	19.01	19.65	19.77	20.44	21.33	24.76	25.40	25.51	26.18	27.07
	8H	19.21	19.79	19.98	20.58	21.48	25.84	26.42	26.60	27.20	28.10
	12H	19.32	19.84	20.09	20.62	21.58	27.06	27.57	27.83	28.35	29.31
12H	4H	18.76	19.44	19.51	20.21	21.10	22.80	23.48	23.55	24.25	25.14
	6H	19.54	20.12	20.30	20.90	21.80	24.79	25.37	25.55	26.15	27.05
	8H	19.86	20.38	20.63	21.16	22.12	25.93	26.45	26.70	27.23	28.19