

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: P893507

Luminaire Tested: 4MB-4SL-FLT-UNV-L840

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893507
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2403-327-4)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-4SL-FLT-UNV-L840
Description: 4000 Lumen 4FT MICROBAY LINEAR BAY with FLAT FROSTED LENS, 80CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

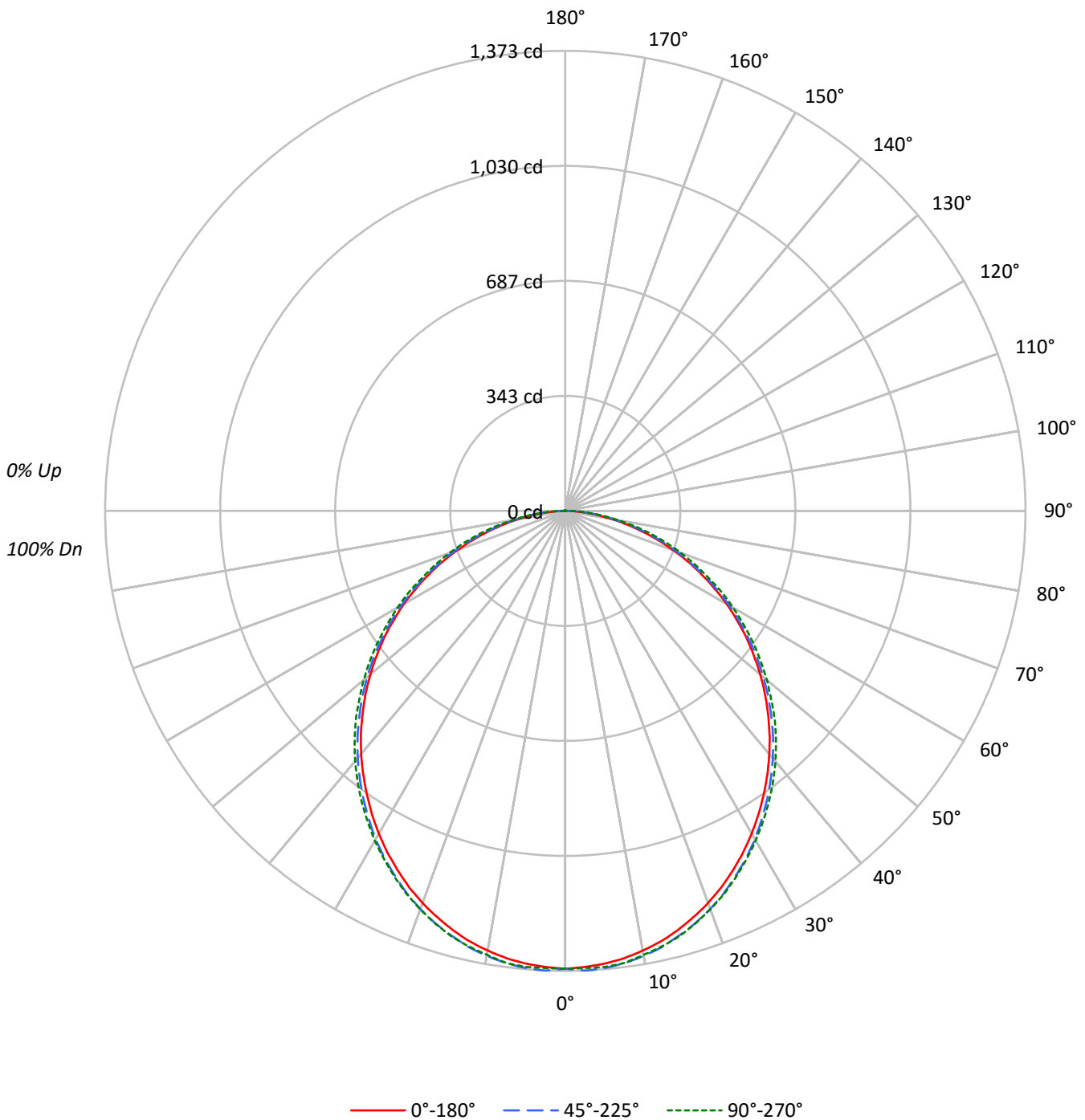
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3793.0 lumens
Efficiency: N/A
Efficacy: 127.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.24 / 1.34
Luminous Opening: Rectangular (W 0.38' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 29.8
Input Voltage (V): 120
Input Current (A_{in}): 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: P893507
CATALOG NUMBER: 4MB-4SL-FLT-UNV-L840

Luminous Intensity Polar Plot





TEST NUMBER: P893507

CATALOG NUMBER: 4MB-4SL-FLT-UNV-L840

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100
1	109	104	99	96	106	101	98	94	97	94	91	93	91	88	90	88	86	86	86	86	83
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	72	72	72	69
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	61	61	61	58
4	82	70	62	55	80	69	61	54	66	59	54	64	58	53	62	57	52	52	52	52	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	45	45	45	43
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	51	45	40	40	40	40	38
7	65	51	43	36	63	51	42	36	49	41	36	48	41	36	46	40	35	35	35	35	33
8	60	47	38	32	59	46	38	32	45	37	32	44	37	32	42	36	32	32	32	32	30
9	56	43	35	29	55	42	35	29	41	34	29	40	34	29	39	33	29	29	29	29	27
10	53	40	32	27	52	39	32	26	38	31	26	37	31	26	36	30	26	26	26	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9722	9722	9722
5°	9688	9780	9759
10°	9626	9742	9720
15°	9542	9667	9682
20°	9430	9574	9581
25°	9290	9439	9462
30°	9138	9294	9335
35°	8966	9123	9201
40°	8798	8947	9059
45°	8605	8746	8897
50°	8404	8536	8691
55°	8177	8301	8475
60°	7915	8043	8228
65°	7561	7712	7914
70°	7117	7325	7658
75°	6545	6820	7260
80°	5777	6228	6556
85°	4980	5714	6123

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8897 cd/sqm



TEST NUMBER: P893507
 CATALOG NUMBER: 4MB-4SL-FLT-UNV-L840

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.2	3.4
10°-20°	368.3	9.7
20°-30°	551.9	14.5
30°-40°	656.7	17.3
40°-50°	673.8	17.8
50°-60°	603.6	15.9
60°-70°	458.6	12.1
70°-80°	266.6	7.0
80°-90°	80.0	2.1
90°-100°	1.9	0.1
100°-110°	0.3	0.0
110°-120°	0.0	0.0
120°-130°	0.2	0.0
130°-140°	0.4	0.0
140°-150°	0.6	0.0
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	1049.4	27.7
0°-40°	1706.0	45.0
0°-60°	2983.5	78.7
0°-90°	3788.7	99.9
90°-120°	2.3	0.1
90°-150°	3.4	0.1
90°-180°	4.0	0.1
0°-180°	3793.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1366	1366	1366	1366	1366	
5°	1356	1379	1369	1362	1366	129
15°	1295	1320	1312	1310	1314	365
25°	1183	1210	1202	1200	1205	545
35°	1032	1057	1050	1053	1059	646
45°	855	876	869	876	884	660
55°	659	675	669	677	683	589
65°	449	460	458	466	470	444
75°	238	247	248	257	264	253
85°	61	66	70	75	75	67
90°	1	4	4	7	6	4
95°	0	1	1	2	3	0
105°	0	0	0	1	1	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	1
135°	0	0	1	0	0	0
145°	1	1	1	1	1	1
155°	1	1	1	1	1	0
165°	1	1	1	1	1	0
175°	2	2	2	1	1	0
180°	1	1	1	1	1	



TEST NUMBER: P893507
 CATALOG NUMBER: 4MB-4SL-FLT-UNV-L840

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1366.4	1366.4	1366.4	1366.4	1366.4	1366.4	1366.4	1366.4	1366.4	1366.4	1366.4
2.5°	1362.4	1360.4	1362.4	1361.4	1371.4	1383.4	1381.4	1372.4	1362.4	1365.4	1373.4
5°	1356.4	1355.4	1358.4	1356.4	1366.4	1379.4	1375.4	1367.4	1358.4	1361.4	1369.4
7.5°	1346.4	1346.4	1350.4	1348.4	1357.4	1370.4	1366.4	1359.4	1350.4	1353.4	1361.4
10°	1332.4	1333.4	1338.4	1335.4	1343.4	1357.4	1353.4	1346.4	1338.4	1340.4	1348.4
12.5°	1316.4	1316.4	1322.4	1319.4	1327.4	1340.4	1335.4	1330.4	1322.4	1324.4	1333.4
15°	1295.4	1296.4	1303.4	1300.4	1307.4	1320.4	1315.4	1311.4	1304.4	1305.4	1312.4
17.5°	1271.4	1274.4	1281.4	1278.4	1285.4	1298.4	1292.4	1288.4	1282.4	1283.4	1290.4
20°	1245.4	1248.4	1255.4	1253.4	1258.4	1271.4	1265.4	1263.4	1257.4	1258.4	1264.4
22.5°	1216.3	1219.3	1227.3	1225.3	1230.3	1243.3	1236.3	1235.3	1229.3	1230.3	1235.3
25°	1183.3	1187.3	1196.3	1194.3	1198.3	1210.3	1204.3	1202.3	1198.3	1198.3	1202.3
27.5°	1149.3	1153.3	1163.3	1160.3	1163.3	1176.3	1169.3	1168.3	1164.3	1164.3	1168.3
30°	1112.3	1116.3	1127.3	1124.3	1127.3	1138.3	1131.3	1132.3	1128.3	1128.3	1131.3
32.5°	1073.3	1076.3	1088.3	1086.3	1088.3	1099.3	1092.3	1093.3	1089.3	1090.3	1091.3
35°	1032.3	1035.3	1048.3	1046.3	1047.3	1057.3	1052.3	1052.3	1049.3	1048.3	1050.3
37.5°	990.3	993.3	1009.3	1004.3	1004.3	1014.3	1010.3	1010.3	1007.3	1006.3	1007.3
40°	947.3	949.3	966.3	961.3	960.3	969.3	966.3	966.3	964.3	962.3	963.3
42.5°	902.3	905.3	922.3	918.3	914.3	924.3	921.3	922.3	919.3	917.3	917.3
45°	855.2	858.2	875.2	873.2	867.2	876.2	873.2	875.2	871.2	869.2	869.2
47.5°	808.2	812.2	828.2	825.2	819.2	828.2	825.2	827.2	823.2	821.2	821.2
50°	759.2	763.2	780.2	775.2	769.2	778.2	776.2	777.2	774.2	772.2	771.2
52.5°	709.2	714.2	730.2	724.2	719.2	727.2	726.2	727.2	723.2	722.2	721.2
55°	659.2	664.2	679.2	672.2	668.2	675.2	673.2	675.2	671.2	670.2	669.2
57.5°	607.2	612.2	626.2	619.2	616.2	622.2	621.2	622.2	619.2	618.2	617.2
60°	556.2	560.2	573.2	566.2	563.2	569.2	567.2	570.2	566.2	566.2	565.2
62.5°	502.1	507.1	520.1	512.1	510.1	515.1	513.1	516.1	514.1	512.1	511.1
65°	449.1	452.1	464.1	457.1	454.1	460.1	459.1	461.1	458.1	459.1	458.1
67.5°	396.1	398.1	410.1	402.1	400.1	406.1	407.1	406.1	404.1	405.1	404.1
70°	342.1	344.1	354.1	347.1	346.1	351.1	353.1	352.1	350.1	351.1	352.1
72.5°	290.1	291.1	300.1	294.1	293.1	299.1	299.1	299.1	299.1	299.1	301.1
75°	238.1	239.1	247.1	242.1	241.1	247.1	247.1	247.1	247.1	249.1	248.1
77.5°	188.1	187.1	195.1	192.1	190.1	196.1	196.1	197.1	199.1	201.1	198.1
80°	141.0	140.0	146.0	142.0	142.0	148.0	147.0	148.0	150.0	151.0	152.0
82.5°	99.0	97.0	102.0	101.0	100.0	105.0	106.0	105.0	108.0	109.0	109.0
85°	61.0	61.0	64.0	62.0	62.0	66.0	66.0	67.0	69.0	70.0	70.0
87.5°	29.0	28.0	31.0	30.0	29.0	32.0	32.0	33.0	34.0	35.0	34.0
90°	1.0	1.0	2.0	2.0	2.0	4.0	4.0	4.0	5.0	5.0	4.0
92.5°	0.0	0.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0	2.0
95°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0



TEST NUMBER: P893507
 CATALOG NUMBER: 4MB-4SL-FLT-UNV-L840

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0
132.5°	0.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0
135°	0.0	1.0	1.0	1.0	1.0	0.0	1.0	0.0	0.0	0.0	1.0
137.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
140°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
142.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
145°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
147.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
150°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
152.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
155°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
157.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
160°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
162.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
165°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
167.5°	2.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0
170°	2.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0
172.5°	2.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0
175°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.0	2.0	2.0
177.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
180°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0



TEST NUMBER: P893507
 CATALOG NUMBER: 4MB-4SL-FLT-UNV-L840

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	1366.4	1366.4	1366.4	1366.4	1366.4	1366.4	1366.4	1366.4	1366.4	1366.4
2.5°	1361.4	1354.4	1351.4	1353.4	1367.4	1353.4	1368.4	1373.4	1355.4	1365.4
5°	1357.4	1350.4	1346.4	1348.4	1362.4	1349.4	1365.4	1371.4	1356.4	1366.4
7.5°	1349.4	1341.4	1339.4	1342.4	1354.4	1343.4	1359.4	1365.4	1350.4	1360.4
10°	1337.4	1330.4	1328.4	1331.4	1342.4	1331.4	1345.4	1350.4	1336.4	1345.4
12.5°	1322.4	1315.4	1313.4	1317.4	1327.4	1317.4	1331.4	1336.4	1322.4	1331.4
15°	1303.4	1296.4	1295.4	1301.4	1310.4	1301.4	1315.4	1319.4	1305.4	1314.4
17.5°	1280.4	1273.4	1274.4	1281.4	1288.4	1280.4	1293.4	1297.4	1284.4	1291.4
20°	1255.4	1247.4	1249.4	1255.4	1261.4	1253.4	1266.4	1270.4	1258.4	1265.4
22.5°	1226.3	1218.3	1220.3	1227.3	1231.3	1224.3	1236.3	1240.3	1230.3	1237.3
25°	1194.3	1187.3	1190.3	1197.3	1200.3	1194.3	1205.3	1208.3	1199.3	1205.3
27.5°	1162.3	1154.3	1158.3	1165.3	1167.3	1161.3	1172.3	1174.3	1165.3	1171.3
30°	1126.3	1118.3	1123.3	1131.3	1131.3	1127.3	1136.3	1138.3	1131.3	1136.3
32.5°	1086.3	1080.3	1086.3	1093.3	1092.3	1089.3	1098.3	1100.3	1094.3	1098.3
35°	1046.3	1041.3	1047.3	1054.3	1053.3	1050.3	1059.3	1060.3	1055.3	1059.3
37.5°	1005.3	1001.3	1007.3	1013.3	1011.3	1009.3	1017.3	1017.3	1014.3	1018.3
40°	963.3	959.3	964.3	971.3	967.3	967.3	972.3	974.3	971.3	975.3
42.5°	919.3	915.3	921.3	927.3	923.3	922.3	928.3	929.3	927.3	930.3
45°	873.2	869.2	875.2	880.2	876.2	876.2	881.2	881.2	880.2	884.2
47.5°	826.2	823.2	828.2	833.2	829.2	832.2	832.2	832.2	834.2	833.2
50°	778.2	775.2	779.2	785.2	780.2	781.2	783.2	783.2	784.2	785.2
52.5°	728.2	724.2	728.2	735.2	728.2	731.2	732.2	733.2	736.2	734.2
55°	678.2	674.2	678.2	684.2	677.2	681.2	681.2	682.2	685.2	683.2
57.5°	626.2	622.2	628.2	632.2	625.2	629.2	629.2	631.2	633.2	630.2
60°	574.2	571.2	573.2	580.2	573.2	577.2	577.2	577.2	581.2	578.2
62.5°	521.1	519.1	521.1	527.1	520.1	524.1	523.1	524.1	528.1	527.1
65°	467.1	465.1	467.1	473.1	466.1	470.1	470.1	471.1	474.1	470.1
67.5°	414.1	411.1	414.1	419.1	413.1	416.1	416.1	416.1	421.1	419.1
70°	360.1	358.1	360.1	365.1	360.1	362.1	362.1	362.1	367.1	368.1
72.5°	307.1	307.1	309.1	313.1	309.1	313.1	310.1	308.1	315.1	316.1
75°	255.1	256.1	257.1	261.1	257.1	261.1	259.1	257.1	263.1	264.1
77.5°	207.1	207.1	208.1	211.1	208.1	211.1	209.1	209.1	213.1	212.1
80°	158.0	158.0	159.0	162.0	159.0	162.0	160.0	160.0	164.0	160.0
82.5°	115.0	115.0	115.0	118.0	116.0	118.0	117.0	115.0	120.0	116.0
85°	74.0	75.0	75.0	76.0	75.0	76.0	76.0	75.0	78.0	75.0
87.5°	38.0	38.0	38.0	39.0	38.0	38.0	39.0	38.0	40.0	39.0
90°	7.0	6.0	6.0	8.0	7.0	7.0	8.0	6.0	7.0	6.0
92.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0
95°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0
97.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0
100°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
102.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
105°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0



TEST NUMBER: P893507
 CATALOG NUMBER: 4MB-4SL-FLT-UNV-L840

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	1.0	1.0	1.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0
140°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
142.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0
145°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
147.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
150°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
152.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
155°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
157.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
160°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
162.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
165°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
167.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
170°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
172.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
175°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
177.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
180°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0



TEST NUMBER: P893507
 CATALOG NUMBER: 4MB-4SL-FLT-UNV-L840

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	19.41	21.05	19.78	21.36	21.68	19.55	21.18	19.91	21.50	21.82
	3H	21.23	22.71	21.61	23.04	23.40	21.38	22.86	21.76	23.19	23.55
	4H	21.89	23.29	22.29	23.64	24.02	22.08	23.48	22.48	23.83	24.21
	6H	22.35	23.64	22.76	24.01	24.40	22.64	23.94	23.06	24.30	24.70
	8H	22.48	23.72	22.91	24.11	24.51	22.84	24.07	23.26	24.46	24.87
	12H	22.58	23.77	23.01	24.15	24.58	22.98	24.16	23.41	24.55	24.98
4H	2H	20.04	21.44	20.44	21.79	22.17	20.15	21.55	20.55	21.90	22.27
	3H	22.08	23.26	22.49	23.65	24.06	22.22	23.39	22.63	23.79	24.19
	4H	22.88	23.94	23.31	24.35	24.79	23.06	24.12	23.50	24.54	24.98
	6H	23.45	24.38	23.91	24.82	25.28	23.76	24.68	24.21	25.13	25.58
	8H	23.64	24.51	24.10	24.96	25.42	24.00	24.87	24.46	25.31	25.78
	12H	23.79	24.57	24.27	25.04	25.52	24.19	24.98	24.67	25.45	25.92
8H	4H	23.21	24.08	23.67	24.52	24.99	23.37	24.24	23.83	24.69	25.15
	6H	23.91	24.63	24.40	25.12	25.60	24.20	24.92	24.69	25.41	25.89
	8H	24.17	24.82	24.68	25.33	25.82	24.53	25.18	25.04	25.69	26.17
	12H	24.39	24.96	24.90	25.46	26.02	24.81	25.39	25.32	25.88	26.44
12H	4H	23.25	24.03	23.73	24.51	24.98	23.40	24.19	23.89	24.66	25.13
	6H	23.98	24.63	24.49	25.14	25.63	24.25	24.91	24.76	25.41	25.90
	8H	24.31	24.88	24.81	25.37	25.94	24.65	25.22	25.16	25.72	26.28