

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: P893619

Luminaire Tested: 4MB-5SL-FLT-UNV-L840

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893619
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-5SL-FLT-UNV-L840
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with FLAT FROSTED LENS, 80CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

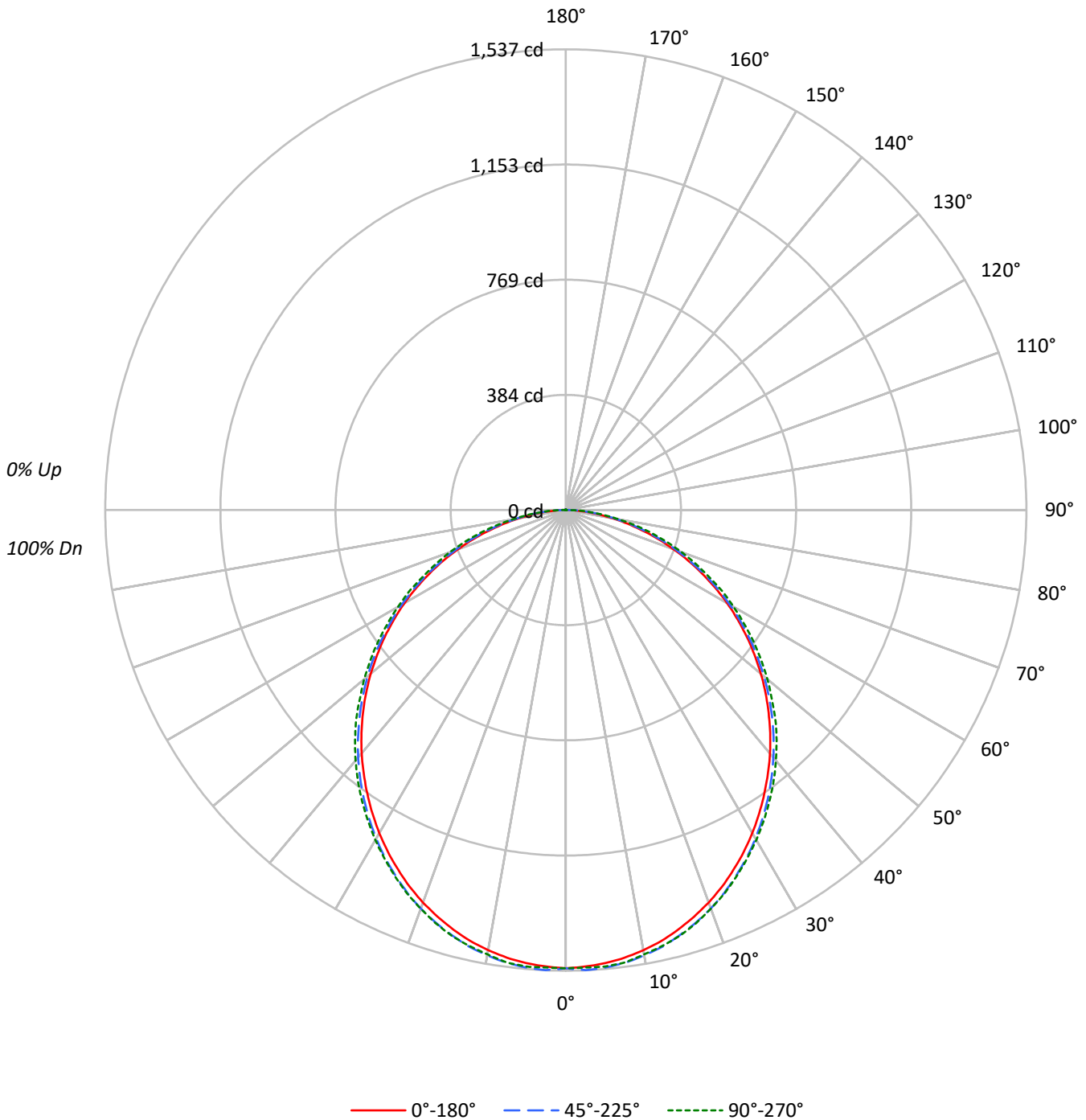
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4243.9 lumens
Efficiency: N/A
Efficacy: 121.3 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): 35
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 9.55
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P893619
CATALOG NUMBER: 4MB-5SL-FLT-UNV-L840

Luminous Intensity Polar Plot





TEST NUMBER: P893619

CATALOG NUMBER: 4MB-5SL-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°	10878	10878	10878
5°	10840	10943	10920
10°	10771	10900	10875
15°	10676	10816	10833
20°	10550	10712	10720
25°	10394	10561	10588
30°	10225	10399	10445
35°	10032	10208	10295
40°	9844	10011	10135
45°	9628	9786	9955
50°	9403	9551	9725
55°	9150	9289	9482
60°	8855	8999	9205
65°	8460	8630	8855
70°	7963	8196	8569
75°	7323	7631	8123
80°	6466	6970	7338
85°	5576	6392	6849

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9955 cd/sqm



TEST NUMBER: P893619
 CATALOG NUMBER: 4MB-5SL-FLT-UNV-L840

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.6	3.4
10°-20°	412.1	9.7
20°-30°	617.5	14.6
30°-40°	734.7	17.3
40°-50°	753.9	17.8
50°-60°	675.4	15.9
60°-70°	513.2	12.1
70°-80°	298.3	7.0
80°-90°	89.5	2.1
90°-100°	2.1	0.0
100°-110°	0.4	0.0
110°-120°	0.0	0.0
120°-130°	0.2	0.0
130°-140°	0.4	0.0
140°-150°	0.7	0.0
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	1174.1	27.7
0°-40°	1908.9	45.0
0°-60°	3338.2	78.7
0°-90°	4239.2	99.9
90°-120°	2.5	0.1
90°-150°	3.8	0.1
90°-180°	5.0	0.1
0°-180°	4243.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1529	1529	1529	1529	1529	
5°	1518	1543	1532	1524	1529	144
15°	1449	1477	1468	1466	1471	409
25°	1324	1354	1345	1343	1349	610
35°	1155	1183	1175	1178	1185	723
45°	957	980	973	980	989	738
55°	738	756	749	758	764	659
65°	502	515	513	522	526	497
75°	266	276	278	288	296	283
85°	68	74	78	84	84	75
90°	1	4	4	8	7	5
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	1
165°	1	1	1	1	1	0
175°	2	2	2	1	1	0
180°	1	1	1	1	1	



TEST NUMBER: P893619
 CATALOG NUMBER: 4MB-5SL-FLT-UNV-L840

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9
2.5°	1524.4	1522.1	1524.4	1523.3	1534.4	1547.9	1545.6	1535.6	1524.4	1527.7	1536.7
5°	1517.7	1516.5	1519.9	1517.7	1528.9	1543.4	1538.9	1530.0	1519.9	1523.3	1532.2
7.5°	1506.5	1506.5	1510.9	1508.7	1518.8	1533.3	1528.9	1521.0	1510.9	1514.3	1523.3
10°	1490.8	1491.9	1497.5	1494.2	1503.1	1518.8	1514.3	1506.5	1497.5	1499.8	1508.7
12.5°	1472.9	1472.9	1479.6	1476.2	1485.2	1499.8	1494.2	1488.6	1479.6	1481.8	1491.9
15°	1449.4	1450.5	1458.3	1455.0	1462.8	1477.4	1471.8	1467.3	1459.5	1460.6	1468.4
17.5°	1422.5	1425.9	1433.7	1430.4	1438.2	1452.7	1446.0	1441.6	1434.8	1436.0	1443.8
20°	1393.4	1396.8	1404.6	1402.4	1408.0	1422.5	1415.8	1413.6	1406.9	1408.0	1414.7
22.5°	1361.0	1364.3	1373.3	1371.0	1376.6	1391.2	1383.4	1382.2	1375.5	1376.6	1382.2
25°	1324.0	1328.5	1338.6	1336.3	1340.8	1354.3	1347.5	1345.3	1340.8	1340.8	1345.3
27.5°	1286.0	1290.5	1301.7	1298.3	1301.7	1316.2	1308.4	1307.2	1302.8	1302.8	1307.2
30°	1244.6	1249.0	1261.4	1258.0	1261.4	1273.7	1265.8	1267.0	1262.5	1262.5	1265.8
32.5°	1200.9	1204.3	1217.7	1215.5	1217.7	1230.0	1222.2	1223.3	1218.8	1219.9	1221.1
35°	1155.0	1158.4	1172.9	1170.7	1171.8	1183.0	1177.4	1177.4	1174.1	1172.9	1175.2
37.5°	1108.0	1111.4	1129.3	1123.7	1123.7	1134.9	1130.4	1130.4	1127.1	1125.9	1127.1
40°	1059.9	1062.1	1081.2	1075.6	1074.4	1084.5	1081.2	1081.2	1078.9	1076.7	1077.8
42.5°	1009.5	1012.9	1031.9	1027.4	1023.0	1034.2	1030.8	1031.9	1028.6	1026.3	1026.3
45°	956.9	960.3	979.3	977.1	970.4	980.4	977.1	979.3	974.8	972.6	972.6
47.5°	904.3	908.8	926.7	923.4	916.6	926.7	923.4	925.6	921.1	918.9	918.9
50°	849.5	854.0	873.0	867.4	860.7	870.8	868.5	869.6	866.3	864.0	862.9
52.5°	793.5	799.1	817.0	810.3	804.7	813.7	812.6	813.7	809.2	808.1	807.0
55°	737.6	743.2	759.9	752.1	747.6	755.5	753.2	755.5	751.0	749.9	748.8
57.5°	679.4	685.0	700.6	692.8	689.4	696.2	695.0	696.2	692.8	691.7	690.6
60°	622.3	626.8	641.3	633.5	630.1	636.8	634.6	638.0	633.5	633.5	632.4
62.5°	561.8	567.4	582.0	573.0	570.8	576.4	574.2	577.5	575.3	573.0	571.9
65°	502.5	505.9	519.3	511.5	508.1	514.8	513.7	516.0	512.6	513.7	512.6
67.5°	443.2	445.4	458.9	449.9	447.7	454.4	455.5	454.4	452.2	453.3	452.2
70°	382.8	385.0	396.2	388.4	387.2	392.8	395.1	394.0	391.7	392.8	394.0
72.5°	324.6	325.7	335.8	329.1	327.9	334.6	334.6	334.6	334.6	334.6	336.9
75°	266.4	267.5	276.4	270.9	269.7	276.4	276.4	276.4	276.4	278.7	277.6
77.5°	210.4	209.3	218.2	214.9	212.7	219.4	219.4	220.5	222.7	225.0	221.6
80°	157.8	156.7	163.4	158.9	158.9	165.6	164.5	165.6	167.9	169.0	170.1
82.5°	110.8	108.6	114.2	113.0	111.9	117.5	118.6	117.5	120.9	122.0	122.0
85°	68.3	68.3	71.6	69.4	69.4	73.9	73.9	75.0	77.2	78.3	78.3
87.5°	32.5	31.3	34.7	33.6	32.5	35.8	35.8	36.9	38.1	39.2	38.1
90°	1.1	1.1	2.2	2.2	2.2	4.5	4.5	4.5	5.6	5.6	4.5
92.5°	0.0	0.0	1.1	1.1	1.1	1.1	1.1	2.2	2.2	2.2	2.2
95°	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
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	1.1



TEST NUMBER: P893619
 CATALOG NUMBER: 4MB-5SL-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	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
130°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.0	1.1
132.5°	0.0	0.0	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0
135°	0.0	1.1	1.1	1.1	1.1	0.0	1.1	0.0	0.0	0.0	1.1
137.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
140°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
142.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
145°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
147.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
150°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
152.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
155°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
157.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
160°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
162.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
165°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
167.5°	2.2	2.2	2.2	2.2	2.2	1.1	1.1	1.1	1.1	1.1	1.1
170°	2.2	2.2	2.2	2.2	2.2	1.1	1.1	1.1	1.1	1.1	1.1
172.5°	2.2	2.2	2.2	2.2	2.2	1.1	1.1	1.1	1.1	1.1	1.1
175°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.1	2.2	2.2
177.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
180°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1



TEST NUMBER: P893619
 CATALOG NUMBER: 4MB-5SL-FLT-UNV-L840

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9	1528.9
2.5°	1523.3	1515.4	1512.1	1514.3	1530.0	1514.3	1531.1	1536.7	1516.5	1527.7
5°	1518.8	1510.9	1506.5	1508.7	1524.4	1509.8	1527.7	1534.4	1517.7	1528.9
7.5°	1509.8	1500.9	1498.6	1502.0	1515.4	1503.1	1521.0	1527.7	1510.9	1522.1
10°	1496.4	1488.6	1486.3	1489.7	1502.0	1489.7	1505.3	1510.9	1495.3	1505.3
12.5°	1479.6	1471.8	1469.5	1474.0	1485.2	1474.0	1489.7	1495.3	1479.6	1489.7
15°	1458.3	1450.5	1449.4	1456.1	1466.2	1456.1	1471.8	1476.2	1460.6	1470.7
17.5°	1432.6	1424.8	1425.9	1433.7	1441.6	1432.6	1447.1	1451.6	1437.1	1444.9
20°	1404.6	1395.7	1397.9	1404.6	1411.3	1402.4	1416.9	1421.4	1408.0	1415.8
22.5°	1372.2	1363.2	1365.4	1373.3	1377.8	1369.9	1383.4	1387.8	1376.6	1384.5
25°	1336.3	1328.5	1331.9	1339.7	1343.1	1336.3	1348.7	1352.0	1341.9	1348.7
27.5°	1300.5	1291.6	1296.1	1303.9	1306.1	1299.4	1311.7	1314.0	1303.9	1310.6
30°	1260.2	1251.3	1256.9	1265.8	1265.8	1261.4	1271.4	1273.7	1265.8	1271.4
32.5°	1215.5	1208.8	1215.5	1223.3	1222.2	1218.8	1228.9	1231.1	1224.4	1228.9
35°	1170.7	1165.1	1171.8	1179.7	1178.5	1175.2	1185.3	1186.4	1180.8	1185.3
37.5°	1124.8	1120.3	1127.1	1133.8	1131.5	1129.3	1138.2	1138.2	1134.9	1139.4
40°	1077.8	1073.3	1078.9	1086.8	1082.3	1082.3	1087.9	1090.1	1086.8	1091.2
42.5°	1028.6	1024.1	1030.8	1037.5	1033.0	1031.9	1038.6	1039.8	1037.5	1040.9
45°	977.1	972.6	979.3	984.9	980.4	980.4	986.0	986.0	984.9	989.4
47.5°	924.5	921.1	926.7	932.3	927.8	931.2	931.2	931.2	933.4	932.3
50°	870.8	867.4	871.9	878.6	873.0	874.1	876.3	876.3	877.5	878.6
52.5°	814.8	810.3	814.8	822.6	814.8	818.1	819.3	820.4	823.7	821.5
55°	758.8	754.4	758.8	765.5	757.7	762.2	762.2	763.3	766.7	764.4
57.5°	700.6	696.2	702.9	707.3	699.5	704.0	704.0	706.2	708.5	705.1
60°	642.4	639.1	641.3	649.1	641.3	645.8	645.8	645.8	650.3	646.9
62.5°	583.1	580.9	583.1	589.8	582.0	586.5	585.4	586.5	590.9	589.8
65°	522.7	520.4	522.7	529.4	521.6	526.0	526.0	527.2	530.5	526.0
67.5°	463.4	460.0	463.4	469.0	462.2	465.6	465.6	465.6	471.2	469.0
70°	402.9	400.7	402.9	408.5	402.9	405.2	405.2	405.2	410.8	411.9
72.5°	343.6	343.6	345.8	350.3	345.8	350.3	347.0	344.7	352.6	353.7
75°	285.4	286.5	287.6	292.1	287.6	292.1	289.9	287.6	294.4	295.5
77.5°	231.7	231.7	232.8	236.2	232.8	236.2	233.9	233.9	238.4	237.3
80°	176.8	176.8	178.0	181.3	178.0	181.3	179.1	179.1	183.6	179.1
82.5°	128.7	128.7	128.7	132.1	129.8	132.1	130.9	128.7	134.3	129.8
85°	82.8	83.9	83.9	85.1	83.9	85.1	85.1	83.9	87.3	83.9
87.5°	42.5	42.5	42.5	43.6	42.5	42.5	43.6	42.5	44.8	43.6
90°	7.8	6.7	6.7	9.0	7.8	7.8	9.0	6.7	7.8	6.7
92.5°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	4.5	4.5
95°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	3.4
97.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.2	2.2
100°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
102.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
105°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.0	1.1	1.1
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	1.1	0.0	0.0	0.0	1.1



TEST NUMBER: P893619
 CATALOG NUMBER: 4MB-5SL-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	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	1.1	1.1	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°	1.1	1.1	1.1	1.1	0.0	1.1	0.0	0.0	0.0	0.0
140°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
142.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0
145°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
147.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
150°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
152.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
155°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
157.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
160°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
162.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
165°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
167.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
170°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
172.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
175°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
177.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
180°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1



TEST NUMBER: P893619
 CATALOG NUMBER: 4MB-5SL-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	19.80	21.44	20.17	21.75	22.07	19.94	21.57	20.30	21.89	22.21
	3H	21.62	23.10	22.00	23.43	23.79	21.77	23.25	22.15	23.58	23.94
	4H	22.28	23.68	22.68	24.03	24.41	22.48	23.87	22.88	24.22	24.60
	6H	22.74	24.03	23.15	24.40	24.79	23.03	24.33	23.45	24.69	25.09
	8H	22.88	24.11	23.30	24.50	24.90	23.23	24.46	23.65	24.86	25.26
	12H	22.97	24.16	23.40	24.54	24.97	23.37	24.55	23.80	24.94	25.37
4H	2H	20.43	21.83	20.83	22.18	22.56	20.54	21.94	20.94	22.29	22.66
	3H	22.47	23.65	22.88	24.05	24.45	22.61	23.78	23.02	24.18	24.58
	4H	23.27	24.33	23.70	24.74	25.18	23.45	24.51	23.89	24.93	25.37
	6H	23.84	24.77	24.30	25.21	25.67	24.15	25.07	24.60	25.52	25.97
	8H	24.03	24.90	24.49	25.35	25.81	24.39	25.26	24.85	25.70	26.17
	12H	24.18	24.96	24.66	25.43	25.91	24.58	25.37	25.07	25.84	26.31
8H	4H	23.60	24.47	24.06	24.91	25.38	23.76	24.63	24.22	25.08	25.54
	6H	24.30	25.02	24.79	25.51	25.99	24.59	25.31	25.08	25.80	26.28
	8H	24.56	25.21	25.07	25.72	26.21	24.92	25.57	25.43	26.08	26.56
	12H	24.78	25.35	25.29	25.85	26.41	25.20	25.78	25.71	26.27	26.83
12H	4H	23.64	24.42	24.12	24.90	25.37	23.79	24.58	24.28	25.05	25.52
	6H	24.37	25.02	24.88	25.53	26.02	24.64	25.30	25.15	25.80	26.29
	8H	24.70	25.27	25.20	25.76	26.33	25.04	25.61	25.55	26.11	26.67