

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: P894991

Luminaire Tested: 8TMB-4SL-FLT-UNV-L840

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894991
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: 8TMB-4SL-FLT-UNV-L840
Description: 4000 Lumen 8FT MICROBAY LINEAR BAY with FLAT FROSTED LENS, 80CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

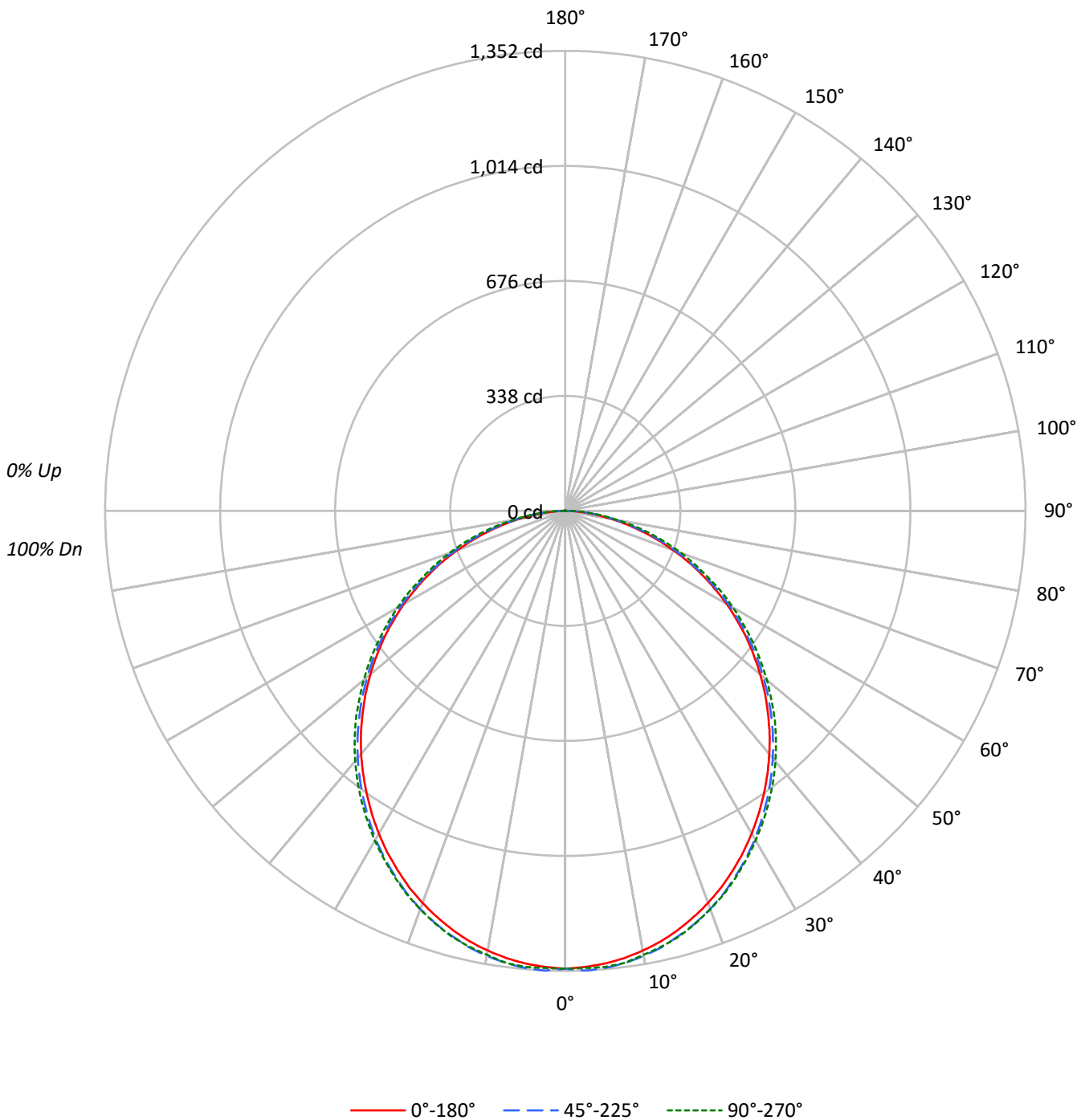
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3735.1 lumens
Efficiency: N/A
Efficacy: 135.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.24 / 1.34
Luminous Opening: Rectangular (W 0.38' x L: 7.98' x H: 0')
CIE Type: Direct

Input Watts (W): 27.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 4.5
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4774	4774	4774
5°	4757	4803	4792
10°	4727	4784	4773
15°	4686	4747	4754
20°	4630	4701	4705
25°	4562	4635	4647
30°	4487	4564	4584
35°	4403	4480	4518
40°	4321	4393	4448
45°	4226	4295	4369
50°	4127	4192	4268
55°	4015	4077	4161
60°	3887	3949	4040
65°	3713	3787	3886
70°	3495	3597	3761
75°	3213	3349	3564
80°	2838	3059	3220
85°	2447	2805	3008

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4369 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.2	3.4
10°-20°	362.6	9.7
20°-30°	543.4	14.5
30°-40°	646.6	17.3
40°-50°	663.5	17.8
50°-60°	594.4	15.9
60°-70°	451.6	12.1
70°-80°	262.5	7.0
80°-90°	78.8	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°	1033.3	27.7
0°-40°	1679.9	45.0
0°-60°	2937.9	78.7
0°-90°	3730.8	99.9
90°-120°	2.2	0.1
90°-150°	3.4	0.1
90°-180°	4.0	0.1
0°-180°	3735.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1346	1346	1346	1346	1346	
5°	1336	1358	1348	1342	1346	127
15°	1276	1300	1292	1290	1294	360
25°	1165	1192	1184	1182	1187	537
35°	1016	1041	1034	1037	1043	636
45°	842	863	856	863	871	650
55°	649	665	659	667	673	580
65°	442	453	451	459	463	438
75°	234	243	244	253	260	249
85°	60	65	69	74	74	66
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	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1345.5	1345.5	1345.5	1345.5	1345.5	1345.5	1345.5	1345.5	1345.5	1345.5	1345.5
2.5°	1341.6	1339.6	1341.6	1340.6	1350.4	1362.2	1360.3	1351.4	1341.6	1344.5	1352.4
5°	1335.6	1334.7	1337.6	1335.6	1345.5	1358.3	1354.4	1346.5	1337.6	1340.6	1348.4
7.5°	1325.8	1325.8	1329.7	1327.8	1336.6	1349.4	1345.5	1338.6	1329.7	1332.7	1340.6
10°	1312.0	1313.0	1317.9	1315.0	1322.8	1336.6	1332.7	1325.8	1317.9	1319.9	1327.8
12.5°	1296.2	1296.2	1302.2	1299.2	1307.1	1319.9	1315.0	1310.0	1302.2	1304.1	1313.0
15°	1275.6	1276.5	1283.4	1280.5	1287.4	1300.2	1295.3	1291.3	1284.4	1285.4	1292.3
17.5°	1251.9	1254.9	1261.8	1258.8	1265.7	1278.5	1272.6	1268.7	1262.8	1263.7	1270.6
20°	1226.3	1229.3	1236.2	1234.2	1239.1	1251.9	1246.0	1244.0	1238.1	1239.1	1245.0
22.5°	1197.7	1200.7	1208.6	1206.6	1211.5	1224.3	1217.4	1216.5	1210.5	1211.5	1216.5
25°	1165.2	1169.2	1178.0	1176.1	1180.0	1191.8	1185.9	1184.0	1180.0	1180.0	1184.0
27.5°	1131.7	1135.7	1145.5	1142.6	1145.5	1158.3	1151.4	1150.5	1146.5	1146.5	1150.5
30°	1095.3	1099.2	1110.1	1107.1	1110.1	1120.9	1114.0	1115.0	1111.1	1111.1	1114.0
32.5°	1056.9	1059.8	1071.7	1069.7	1071.7	1082.5	1075.6	1076.6	1072.6	1073.6	1074.6
35°	1016.5	1019.5	1032.3	1030.3	1031.3	1041.1	1036.2	1036.2	1033.2	1032.3	1034.2
37.5°	975.1	978.1	993.9	988.9	988.9	998.8	994.8	994.8	991.9	990.9	991.9
40°	932.8	934.8	951.5	946.6	945.6	954.5	951.5	951.5	949.5	947.6	948.5
42.5°	888.5	891.4	908.2	904.2	900.3	910.1	907.2	908.2	905.2	903.2	903.2
45°	842.2	845.1	861.9	859.9	854.0	862.8	859.9	861.9	857.9	856.0	856.0
47.5°	795.9	799.8	815.6	812.6	806.7	815.6	812.6	814.6	810.6	808.7	808.7
50°	747.6	751.5	768.3	763.4	757.5	766.3	764.3	765.3	762.4	760.4	759.4
52.5°	698.4	703.3	719.0	713.1	708.2	716.1	715.1	716.1	712.1	711.2	710.2
55°	649.1	654.0	668.8	661.9	658.0	664.9	662.9	664.9	660.9	659.9	659.0
57.5°	597.9	602.8	616.6	609.7	606.8	612.7	611.7	612.7	609.7	608.7	607.7
60°	547.7	551.6	564.4	557.5	554.5	560.5	558.5	561.4	557.5	557.5	556.5
62.5°	494.5	499.4	512.2	504.3	502.3	507.3	505.3	508.3	506.3	504.3	503.3
65°	442.3	445.2	457.0	450.1	447.2	453.1	452.1	454.1	451.1	452.1	451.1
67.5°	390.1	392.0	403.8	396.0	394.0	399.9	400.9	399.9	397.9	398.9	397.9
70°	336.9	338.8	348.7	341.8	340.8	345.7	347.7	346.7	344.7	345.7	346.7
72.5°	285.6	286.6	295.5	289.6	288.6	294.5	294.5	294.5	294.5	294.5	296.5
75°	234.4	235.4	243.3	238.4	237.4	243.3	243.3	243.3	243.3	245.3	244.3
77.5°	185.2	184.2	192.1	189.1	187.1	193.1	193.1	194.0	196.0	198.0	195.0
80°	138.9	137.9	143.8	139.9	139.9	145.8	144.8	145.8	147.7	148.7	149.7
82.5°	97.5	95.5	100.5	99.5	98.5	103.4	104.4	103.4	106.4	107.4	107.4
85°	60.1	60.1	63.0	61.1	61.1	65.0	65.0	66.0	68.0	68.9	68.9
87.5°	28.6	27.6	30.5	29.5	28.6	31.5	31.5	32.5	33.5	34.5	33.5
90°	1.0	1.0	2.0	2.0	2.0	3.9	3.9	3.9	4.9	4.9	3.9
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



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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



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	1345.5	1345.5	1345.5	1345.5	1345.5	1345.5	1345.5	1345.5	1345.5	1345.5
2.5°	1340.6	1333.7	1330.7	1332.7	1346.5	1332.7	1347.5	1352.4	1334.7	1344.5
5°	1336.6	1329.7	1325.8	1327.8	1341.6	1328.7	1344.5	1350.4	1335.6	1345.5
7.5°	1328.7	1320.9	1318.9	1321.9	1333.7	1322.8	1338.6	1344.5	1329.7	1339.6
10°	1316.9	1310.0	1308.1	1311.0	1321.9	1311.0	1324.8	1329.7	1315.9	1324.8
12.5°	1302.2	1295.3	1293.3	1297.2	1307.1	1297.2	1311.0	1315.9	1302.2	1311.0
15°	1283.4	1276.5	1275.6	1281.5	1290.3	1281.5	1295.3	1299.2	1285.4	1294.3
17.5°	1260.8	1253.9	1254.9	1261.8	1268.7	1260.8	1273.6	1277.5	1264.7	1271.6
20°	1236.2	1228.3	1230.2	1236.2	1242.1	1234.2	1247.0	1250.9	1239.1	1246.0
22.5°	1207.6	1199.7	1201.7	1208.6	1212.5	1205.6	1217.4	1221.4	1211.5	1218.4
25°	1176.1	1169.2	1172.1	1179.0	1182.0	1176.1	1186.9	1189.9	1181.0	1186.9
27.5°	1144.6	1136.7	1140.6	1147.5	1149.5	1143.6	1154.4	1156.4	1147.5	1153.4
30°	1109.1	1101.2	1106.1	1114.0	1114.0	1110.1	1118.9	1120.9	1114.0	1118.9
32.5°	1069.7	1063.8	1069.7	1076.6	1075.6	1072.6	1081.5	1083.5	1077.6	1081.5
35°	1030.3	1025.4	1031.3	1038.2	1037.2	1034.2	1043.1	1044.1	1039.2	1043.1
37.5°	989.9	986.0	991.9	997.8	995.8	993.9	1001.7	1001.7	998.8	1002.7
40°	948.5	944.6	949.5	956.4	952.5	952.5	957.4	959.4	956.4	960.4
42.5°	905.2	901.3	907.2	913.1	909.1	908.2	914.1	915.1	913.1	916.0
45°	859.9	856.0	861.9	866.8	862.8	862.8	867.8	867.8	866.8	870.7
47.5°	813.6	810.6	815.6	820.5	816.6	819.5	819.5	819.5	821.5	820.5
50°	766.3	763.4	767.3	773.2	768.3	769.3	771.2	771.2	772.2	773.2
52.5°	717.1	713.1	717.1	724.0	717.1	720.0	721.0	722.0	724.9	723.0
55°	667.8	663.9	667.8	673.7	666.8	670.8	670.8	671.8	674.7	672.7
57.5°	616.6	612.7	618.6	622.5	615.6	619.6	619.6	621.5	623.5	620.5
60°	565.4	562.4	564.4	571.3	564.4	568.3	568.3	568.3	572.3	569.3
62.5°	513.2	511.2	513.2	519.1	512.2	516.1	515.1	516.1	520.1	519.1
65°	460.0	458.0	460.0	465.9	459.0	462.9	462.9	463.9	466.9	462.9
67.5°	407.8	404.8	407.8	412.7	406.8	409.8	409.8	409.8	414.7	412.7
70°	354.6	352.6	354.6	359.5	354.6	356.6	356.6	356.6	361.5	362.5
72.5°	302.4	302.4	304.4	308.3	304.4	308.3	305.3	303.4	310.3	311.3
75°	251.2	252.2	253.1	257.1	253.1	257.1	255.1	253.1	259.1	260.0
77.5°	203.9	203.9	204.9	207.8	204.9	207.8	205.9	205.9	209.8	208.8
80°	155.6	155.6	156.6	159.6	156.6	159.6	157.6	157.6	161.5	157.6
82.5°	113.3	113.3	113.3	116.2	114.3	116.2	115.2	113.3	118.2	114.3
85°	72.9	73.9	73.9	74.9	73.9	74.9	74.9	73.9	76.8	73.9
87.5°	37.4	37.4	37.4	38.4	37.4	37.4	38.4	37.4	39.4	38.4
90°	6.9	5.9	5.9	7.9	6.9	6.9	7.9	5.9	6.9	5.9
92.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.9	3.9
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: P894991

CATALOG NUMBER: 8TMB-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: P894991
 CATALOG NUMBER: 8TMB-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	16.94	18.57	17.30	18.89	19.21	17.07	18.71	17.44	19.03	19.34
	3H	18.76	20.24	19.14	20.57	20.93	18.91	20.39	19.29	20.72	21.08
	4H	19.42	20.82	19.82	21.17	21.55	19.61	21.01	20.01	21.36	21.74
	6H	19.87	21.17	20.29	21.54	21.93	20.17	21.47	20.58	21.83	22.23
	8H	20.01	21.25	20.44	21.64	22.04	20.37	21.60	20.79	21.99	22.40
	12H	20.11	21.29	20.54	21.68	22.11	20.51	21.69	20.94	22.08	22.51
4H	2H	17.57	18.97	17.97	19.32	19.70	17.68	19.08	18.08	19.43	19.80
	3H	19.61	20.78	20.02	21.18	21.59	19.75	20.92	20.16	21.32	21.72
	4H	20.41	21.47	20.84	21.88	22.32	20.59	21.65	21.02	22.07	22.51
	6H	20.98	21.91	21.44	22.35	22.81	21.28	22.21	21.74	22.65	23.11
	8H	21.17	22.04	21.63	22.48	22.95	21.53	22.40	21.99	22.84	23.31
	12H	21.31	22.10	21.80	22.57	23.04	21.72	22.50	22.20	22.98	23.45
8H	4H	20.74	21.60	21.20	22.05	22.52	20.90	21.77	21.36	22.21	22.68
	6H	21.44	22.16	21.93	22.65	23.13	21.73	22.45	22.22	22.94	23.42
	8H	21.70	22.35	22.21	22.86	23.35	22.06	22.71	22.57	23.22	23.70
	12H	21.92	22.49	22.42	22.98	23.55	22.34	22.92	22.85	23.41	23.97
12H	4H	20.78	21.56	21.26	22.04	22.51	20.93	21.72	21.41	22.19	22.66
	6H	21.51	22.16	22.02	22.67	23.16	21.78	22.43	22.29	22.94	23.43
	8H	21.83	22.41	22.34	22.90	23.46	22.18	22.75	22.69	23.24	23.81