

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: P892613

Luminaire Tested: 2MB-3SL-ASML-UNV-L830

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892613
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-33)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 2MB-3SL-ASML-UNV-L830
Description: 3000 Lumen 2FT MICROBAY LINEAR BAY with ASYMMETRIC LENS, 80CRI, 3000K CCT
Light Source: -
Ballast/Driver: -

Summary

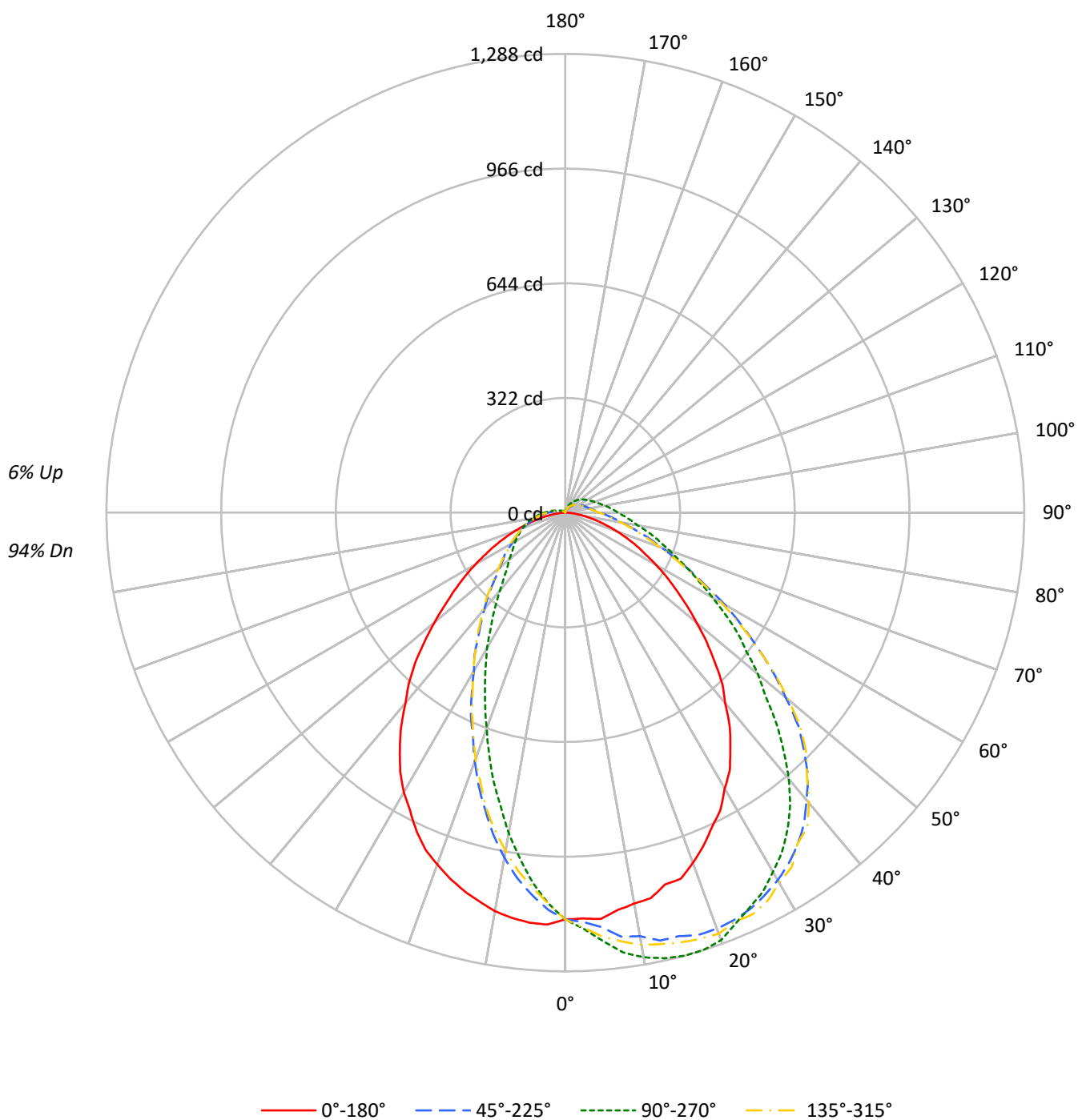
Lumens per Lamp: N/A
Luminaire Lumens: 2846.0 lumens
Efficiency: N/A
Efficacy: 135.5 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.07 / 1.25
Luminous Opening: Rectangular w/ Sides (W: 0.27' x L: 1.98' x H: 0.12')
CIE Type: Direct

Input Watts (W): 21
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 8
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
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	118	118	118	118	114	114	114	114	108	108	108	102	102	102	97	97	97
1	107	103	98	94	104	100	96	92	95	91	88	90	87	85	85	83	81
2	98	90	83	78	95	88	82	76	83	78	74	79	75	71	75	72	69
3	90	80	72	65	87	78	70	64	74	68	63	70	65	61	67	63	59
4	83	71	63	56	80	69	61	55	66	59	54	63	57	53	60	55	51
5	76	64	55	49	74	62	54	48	60	53	47	57	51	46	55	49	45
6	71	58	49	43	68	56	48	42	54	47	42	52	46	41	50	44	40
7	66	53	44	38	64	51	43	38	49	42	37	48	41	36	46	40	36
8	61	48	40	34	59	47	39	34	45	38	33	44	37	33	42	37	32
9	57	44	36	31	56	43	36	31	42	35	30	40	34	30	39	33	29
10	54	41	33	28	52	40	33	28	39	32	28	38	31	27	36	31	27

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	23382	23382	23382	23382
5°	23404	23827	23625	20595
10°	22920	24335	23366	17552
15°	22532	24249	22914	14676
20°	22291	23769	22387	12005
25°	21376	22667	21670	9879
30°	20410	21660	20675	8160
35°	19333	20443	19385	6650
40°	17721	18701	17711	5452
45°	16130	16507	16212	4645
50°	14268	14407	14200	4196
55°	12489	12620	12404	3856
60°	10864	10765	10764	3644
65°	9413	9270	9191	3463
70°	7877	8123	7612	3308
75°	6274	7383	6101	3186
80°	4645	6647	4219	2970
85°	2906	6416	2347	2781

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 157.5°

Vertical Angle: 45°

Luminance: 22583 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.3	3.8
10°-20°	298.2	10.5
20°-30°	428.9	15.1
30°-40°	486.8	17.1
40°-50°	465.2	16.3
50°-60°	378.0	13.3
60°-70°	263.8	9.3
70°-80°	163.4	5.7
80°-90°	93.7	3.3
90°-100°	56.0	2.0
100°-110°	36.8	1.3
110°-120°	25.8	0.9
120°-130°	18.7	0.7
130°-140°	12.4	0.4
140°-150°	7.0	0.2
150°-160°	3.1	0.1
160°-170°	0.9	0.0
170°-180°	0.1	0.0
0°-30°	834.4	29.3
0°-40°	1321.2	46.4
0°-60°	2164.4	76.1
0°-90°	2685.3	94.4
90°-120°	118.6	4.2
90°-150°	156.6	5.5
90°-180°	161.0	5.7
0°-180°	2846.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1142	1142	1142	1142	1142	
5°	1145	1207	1156	1043	1145	108
15°	1081	1288	1099	780	1081	307
25°	974	1223	987	533	974	449
35°	808	1087	810	354	808	503
45°	592	838	595	236	592	457
55°	381	591	379	181	381	343
65°	221	384	215	144	221	219
75°	98	257	95	111	98	106
85°	21	174	17	76	21	24
90°	1	147	0	58	1	2
95°	1	128	0	44	1	1
105°	1	99	0	24	1	1
115°	1	78	0	13	1	1
125°	1	64	0	9	1	1
135°	1	51	0	7	1	1
145°	1	36	0	4	1	0
155°	1	22	0	3	1	0
165°	1	10	0	1	1	0
175°	1	0	0	0	1	0
180°	0	0	0	0	0	

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CATALOG NUMBER: 2MB-3SL-ASML-UNV-L830

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1141.9	1141.9	1141.9	1141.9	1141.9	1141.9	1141.9	1141.9	1141.9	1141.9	1141.9
2.5°	1140.7	1149.3	1150.1	1177.0	1169.2	1179.3	1166.5	1168.8	1157.6	1154.6	1115.7
5°	1144.9	1163.2	1168.0	1214.4	1206.9	1212.2	1194.6	1181.9	1155.7	1140.0	1077.2
7.5°	1125.4	1173.6	1200.6	1233.5	1245.8	1249.9	1214.4	1190.8	1147.5	1109.0	1035.3
10°	1114.6	1181.1	1207.3	1256.6	1267.5	1259.6	1232.0	1193.1	1136.3	1074.2	983.7
12.5°	1108.6	1185.2	1230.8	1281.3	1281.7	1273.5	1240.9	1199.1	1117.9	1036.8	929.1
15°	1080.9	1184.5	1231.2	1282.4	1288.1	1282.8	1249.5	1195.0	1099.2	990.4	866.3
17.5°	1077.9	1182.6	1243.2	1297.0	1287.7	1283.9	1254.8	1193.1	1076.8	943.3	807.2
20°	1046.5	1178.5	1243.2	1280.6	1277.6	1279.1	1258.1	1190.5	1051.0	892.5	742.5
22.5°	1013.2	1173.6	1238.0	1266.4	1248.4	1275.7	1243.2	1183.4	1024.8	839.4	678.2
25°	974.0	1165.8	1227.9	1246.2	1223.4	1244.7	1244.3	1172.5	987.4	782.2	627.4
27.5°	942.2	1153.5	1211.4	1239.1	1200.2	1218.5	1229.0	1159.4	943.3	725.7	567.6
30°	894.7	1137.8	1191.6	1195.7	1165.0	1188.2	1200.2	1143.0	906.3	661.8	513.0
32.5°	858.5	1119.8	1167.3	1161.7	1131.0	1161.7	1181.1	1126.5	862.2	605.7	474.5
35°	807.6	1098.1	1137.0	1107.5	1087.3	1112.7	1135.5	1109.0	809.8	545.9	425.1
37.5°	758.3	1079.0	1100.7	1064.1	1036.4	1064.8	1114.9	1076.1	757.1	498.4	388.5
40°	698.1	1035.3	1053.3	1003.5	975.9	1017.7	1063.7	1047.6	697.7	449.0	353.0
42.5°	652.4	1002.8	1008.0	940.0	907.1	951.6	1003.9	1007.3	649.4	404.6	321.5
45°	592.2	957.2	947.4	872.7	838.3	878.3	956.8	965.8	595.2	366.0	290.9
47.5°	538.0	906.3	887.2	799.8	761.2	808.7	895.8	919.4	534.7	330.5	262.1
50°	481.6	849.5	807.2	731.7	705.9	729.5	818.4	857.3	479.3	295.4	240.0
52.5°	430.0	786.7	734.3	666.6	640.8	660.3	737.3	795.6	424.4	265.8	220.6
55°	381.4	723.9	656.2	596.4	591.1	597.1	655.1	722.0	378.8	239.7	208.3
57.5°	338.0	647.6	585.9	541.8	532.4	537.3	577.3	646.1	334.6	213.5	190.3
60°	294.3	569.4	516.3	482.3	477.1	480.8	506.6	572.1	291.6	191.4	173.5
62.5°	254.6	490.9	443.8	431.1	427.4	427.4	438.2	498.0	251.3	169.0	160.8
65°	220.6	423.6	388.1	383.2	384.4	384.0	377.3	415.8	215.4	149.2	149.6
67.5°	186.2	352.2	332.4	338.4	342.9	341.0	326.8	345.8	181.7	131.2	139.5
70°	154.4	290.9	287.1	300.6	311.1	301.4	280.8	282.7	149.2	113.7	126.4
72.5°	124.5	235.2	252.4	271.1	281.2	270.3	241.9	233.7	120.0	97.6	114.4
75°	98.0	189.2	216.5	244.2	257.2	243.4	210.5	182.5	95.3	82.3	104.7
77.5°	74.8	149.9	185.1	217.2	229.9	218.0	183.2	142.5	69.9	69.2	94.2
80°	53.5	118.5	164.1	195.2	206.8	195.2	158.9	112.5	48.6	55.3	83.0
82.5°	35.1	91.6	142.8	177.6	190.3	176.1	138.0	86.7	31.0	44.9	74.8
85°	21.3	72.5	124.5	159.7	174.2	160.4	120.8	65.8	17.2	34.4	65.1
87.5°	9.3	56.1	111.0	147.3	160.4	147.7	107.7	51.6	7.1	26.9	55.7
90°	0.7	44.5	98.0	135.7	147.3	135.3	95.3	41.9	0.0	19.4	47.9
92.5°	0.7	38.1	89.7	125.6	138.7	125.3	86.0	34.4	0.0	14.2	40.4
95°	1.1	32.2	81.5	117.8	128.2	116.7	78.5	29.5	0.0	9.7	34.0
97.5°	1.1	29.2	74.8	109.9	121.5	109.2	71.8	26.5	0.0	7.1	27.7
100°	0.7	26.9	69.5	102.4	113.3	101.7	66.6	23.9	0.0	4.5	22.4
102.5°	0.7	25.1	65.1	96.1	104.7	95.0	62.1	22.4	0.0	3.7	18.3
105°	0.7	23.9	60.9	88.6	98.7	88.6	58.3	20.9	0.0	3.0	14.2
107.5°	0.7	22.4	58.0	84.5	92.7	83.8	55.3	19.8	0.0	3.0	11.6
110°	0.7	21.3	55.3	78.5	87.9	79.3	52.7	17.9	0.0	1.9	9.3

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	0.7	19.4	52.7	74.4	83.4	74.8	50.5	16.5	0.0	1.9	8.2
115°	0.7	17.6	50.5	71.8	78.5	71.0	48.2	14.6	0.0	1.5	7.5
117.5°	0.7	16.5	49.0	68.4	75.2	67.7	46.4	13.8	0.0	1.5	7.1
120°	0.7	15.7	46.7	65.1	70.3	64.3	44.1	13.1	0.0	1.5	6.7
122.5°	0.7	15.0	44.9	62.1	67.7	61.7	42.2	12.7	0.0	1.1	6.0
125°	0.7	14.2	42.2	58.7	63.9	58.0	38.9	12.3	0.0	0.7	5.2
127.5°	0.7	13.5	39.6	56.1	60.9	55.3	36.6	12.0	0.0	0.7	4.9
130°	0.7	13.1	36.3	52.7	57.6	52.0	34.0	12.0	0.0	0.7	4.5
132.5°	0.7	12.7	32.5	49.4	54.6	48.6	31.4	11.6	0.0	0.7	3.7
135°	0.7	12.3	28.8	46.0	50.8	45.2	29.2	11.2	0.0	0.7	3.4
137.5°	0.7	11.6	25.4	42.2	47.1	41.5	27.7	10.5	0.0	0.7	3.0
140°	0.7	10.8	22.8	39.3	43.4	38.1	25.4	9.7	0.0	0.4	2.2
142.5°	0.7	9.7	20.6	35.5	39.6	34.8	22.8	8.2	0.0	0.4	2.2
145°	0.7	8.6	18.7	31.0	35.9	31.0	21.3	7.5	0.0	0.4	1.9
147.5°	0.7	7.9	16.8	26.2	32.5	28.4	19.1	6.4	0.0	0.4	1.5
150°	0.7	7.1	14.6	22.1	28.8	25.1	17.6	5.6	0.0	0.0	1.1
152.5°	0.7	6.4	12.7	18.3	25.8	22.8	15.7	4.9	0.0	0.0	0.7
155°	1.1	6.0	10.8	16.1	22.4	19.8	13.1	4.1	0.0	0.0	0.7
157.5°	1.1	5.2	9.0	13.1	19.8	17.2	10.5	3.4	0.0	0.0	0.4
160°	1.1	4.9	7.5	10.1	16.5	14.2	8.6	2.6	0.0	0.0	0.4
162.5°	1.1	4.5	6.4	7.5	13.5	11.2	6.7	1.9	0.0	0.0	0.4
165°	1.1	3.7	5.6	5.2	10.5	8.6	5.2	1.1	0.0	0.0	0.0
167.5°	1.1	3.4	4.5	3.7	7.9	6.4	3.7	0.7	0.0	0.0	0.0
170°	1.1	2.6	3.7	2.6	2.2	4.1	2.2	0.4	0.0	0.0	0.0
172.5°	1.1	2.2	3.0	1.9	0.7	2.2	1.1	0.0	0.0	0.0	0.0
175°	1.1	1.9	1.9	1.1	0.4	0.7	0.0	0.0	0.0	0.0	0.0
177.5°	1.1	1.5	1.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4

TEST NUMBER: P892613

CATALOG NUMBER: 2MB-3SL-ASML-UNV-L830

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1141.9	1141.9	1141.9	1141.9	1141.9	1141.9
2.5°	1110.5	1098.1	1086.9	1098.9	1107.5	1140.7
5°	1056.2	1043.2	1044.7	1055.5	1084.3	1144.9
7.5°	1000.2	978.5	983.7	1014.0	1056.6	1125.4
10°	934.0	914.2	919.0	964.6	1024.5	1114.6
12.5°	874.9	841.6	870.0	913.0	987.1	1108.6
15°	805.7	779.6	794.9	858.5	951.2	1080.9
17.5°	731.0	710.8	729.1	792.3	907.1	1077.9
20°	673.4	645.3	667.0	736.6	852.5	1046.5
22.5°	608.7	587.4	610.2	674.1	796.8	1013.2
25°	555.6	533.2	556.0	619.5	747.4	974.0
27.5°	504.0	483.4	504.0	562.3	698.4	942.2
30°	458.8	438.9	459.9	516.0	641.2	894.7
32.5°	416.5	391.1	418.0	472.2	590.7	858.5
35°	372.8	353.7	373.9	434.1	534.7	807.6
37.5°	336.5	316.7	340.6	392.2	487.2	758.3
40°	302.1	284.5	303.6	358.6	446.8	698.1
42.5°	275.2	257.6	277.1	327.9	406.0	652.4
45°	249.0	235.9	251.6	294.3	364.9	592.2
47.5°	229.9	218.7	231.8	269.6	330.5	538.0
50°	213.5	205.6	215.0	244.9	295.0	481.6
52.5°	198.9	191.1	201.9	225.8	267.0	430.0
55°	187.7	180.6	188.8	207.9	238.9	381.4
57.5°	175.4	170.9	177.2	188.8	216.9	338.0
60°	166.4	161.5	168.3	177.6	191.8	294.3
62.5°	156.3	153.7	157.8	165.3	172.7	254.6
65°	147.3	143.6	148.8	151.4	150.7	220.6
67.5°	137.6	136.5	139.5	139.8	134.2	186.2
70°	127.5	126.7	130.5	128.2	116.7	154.4
72.5°	119.3	119.3	121.5	117.0	101.7	124.5
75°	110.3	111.0	112.9	107.7	85.6	98.0
77.5°	102.1	102.8	103.2	96.1	71.8	74.8
80°	92.7	92.4	96.1	87.1	58.3	53.5
82.5°	84.5	83.0	85.2	76.3	47.1	35.1
85°	75.2	75.5	77.0	66.6	37.8	21.3
87.5°	67.7	67.7	69.2	58.7	28.4	9.3
90°	58.7	58.0	60.2	49.7	21.3	0.7
92.5°	51.2	51.2	52.7	42.6	15.7	0.7
95°	43.7	44.1	45.2	35.1	12.0	1.1
97.5°	37.4	37.8	39.3	29.9	8.6	1.1
100°	31.8	32.2	32.9	23.9	6.7	0.7
102.5°	26.5	27.7	27.7	19.8	5.2	0.7
105°	22.4	23.9	23.2	16.1	4.9	0.7
107.5°	18.7	20.2	20.2	13.1	4.9	0.7
110°	15.3	17.6	17.2	11.2	3.7	0.7



TEST NUMBER: P892613

CATALOG NUMBER: 2MB-3SL-ASML-UNV-L830

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	13.1	15.0	13.8	9.7	3.7	0.7
115°	11.2	13.1	12.3	9.0	3.4	0.7
117.5°	10.1	11.2	11.2	8.6	3.4	0.7
120°	9.3	10.5	10.1	8.2	3.4	0.7
122.5°	8.6	9.3	9.3	7.5	3.0	0.7
125°	8.2	8.6	9.0	6.7	3.0	0.7
127.5°	7.9	8.6	8.6	6.4	2.6	0.7
130°	7.1	7.9	7.9	6.0	2.6	0.7
132.5°	6.4	7.1	7.1	5.6	2.6	0.7
135°	6.0	6.7	6.7	5.2	2.6	0.7
137.5°	5.6	6.0	6.0	4.9	2.6	0.7
140°	4.9	5.6	5.6	4.5	2.6	0.7
142.5°	4.5	5.2	5.2	4.1	2.2	0.7
145°	4.1	4.5	4.9	3.7	2.2	0.7
147.5°	3.4	4.1	4.5	3.4	2.2	0.7
150°	2.6	3.7	3.7	3.4	2.2	0.7
152.5°	1.9	3.4	3.4	3.0	1.9	0.7
155°	1.5	2.6	3.0	2.6	1.9	1.1
157.5°	1.1	2.2	2.6	2.6	1.9	1.1
160°	0.7	1.9	2.2	2.2	1.5	1.1
162.5°	0.4	1.5	1.9	2.2	1.5	1.1
165°	0.0	1.1	1.5	1.9	1.5	1.1
167.5°	0.0	0.7	1.1	1.5	1.1	1.1
170°	0.0	0.4	0.7	1.1	1.1	1.1
172.5°	0.0	0.0	0.4	0.7	0.7	1.1
175°	0.0	0.0	0.0	0.4	0.7	1.1
177.5°	0.0	0.0	0.0	0.4	0.7	1.1
180°	0.4	0.4	0.4	0.4	0.4	0.4

TEST NUMBER: P892613
CATALOG NUMBER: 2MB-3SL-ASML-UNV-L830

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	19.84	21.30	20.29	21.73	22.18	22.00	23.46	22.45	23.89	24.35
	3H	20.66	21.98	21.13	22.42	22.92	23.67	24.99	24.14	25.43	25.93
	4H	20.86	22.11	21.35	22.57	23.08	24.48	25.72	24.97	26.19	26.70
	6H	20.96	22.11	21.46	22.58	23.11	25.31	26.47	25.81	26.94	27.47
	8H	20.96	22.06	21.47	22.56	23.09	25.75	26.85	26.27	27.35	27.88
	12H	20.95	22.00	21.47	22.49	23.05	26.24	27.29	26.76	27.78	28.35
4H	2H	20.26	21.50	20.75	21.97	22.48	22.37	23.61	22.86	24.07	24.59
	3H	21.36	22.40	21.86	22.91	23.44	24.23	25.27	24.73	25.78	26.31
	4H	21.70	22.65	22.22	23.16	23.73	25.17	26.12	25.69	26.64	27.21
	6H	21.89	22.72	22.43	23.26	23.85	26.17	27.00	26.71	27.54	28.13
	8H	21.92	22.70	22.47	23.24	23.84	26.70	27.48	27.25	28.02	28.61
	12H	21.92	22.63	22.49	23.20	23.80	27.30	28.00	27.87	28.57	29.17
8H	4H	22.02	22.80	22.57	23.34	23.93	25.32	26.09	25.86	26.64	27.23
	6H	22.34	22.99	22.92	23.58	24.18	26.45	27.10	27.03	27.69	28.29
	8H	22.43	23.01	23.02	23.61	24.23	27.09	27.68	27.69	28.28	28.89
	12H	22.48	23.01	23.08	23.59	24.28	27.85	28.37	28.44	28.96	29.64
12H	4H	22.09	22.79	22.66	23.37	23.96	25.31	26.01	25.88	26.58	27.18
	6H	22.47	23.06	23.06	23.66	24.27	26.46	27.05	27.05	27.65	28.26
	8H	22.63	23.15	23.22	23.74	24.42	27.16	27.69	27.76	28.27	28.96