

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: P892616

Luminaire Tested: 2MB-3SL-ASML-UNV-L850

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892616
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-L850
Description: 3000 Lumen 2FT MICROBAY LINEAR BAY with ASYMMETRIC LENS, 80CRI, 5000K CCT
Light Source: -
Ballast/Driver: -

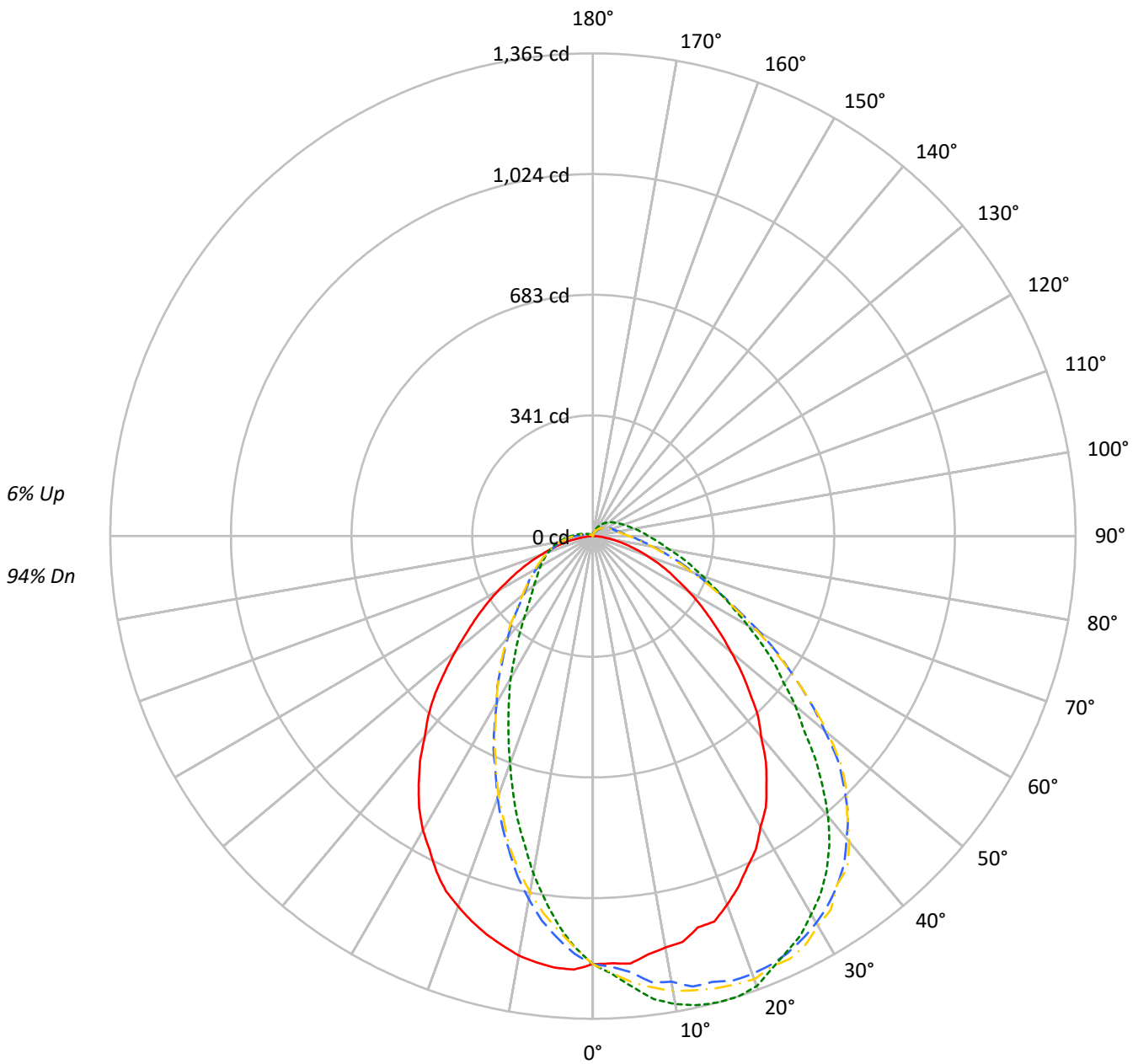
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3017.0 lumens
Efficiency: N/A
Efficacy: 143.7 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 (A_{in}): 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

TEST NUMBER: P892616
CATALOG NUMBER: 2MB-3SL-ASML-UNV-L850

Luminous Intensity Polar Plot



— 0°-180° - - 45°-225° - · - 90°-270° - · - 135°-315°



TEST NUMBER: P892616

CATALOG NUMBER: 2MB-3SL-ASML-UNV-L850

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		0
RCR																			
0	118	118	118	118	114	114	114	114	108	108	108	102	102	102	97	97	97		94
1	107	103	98	94	104	100	96	92	95	91	88	90	87	85	85	83	81		79
2	98	90	83	78	95	88	82	76	83	78	74	79	75	71	75	72	69		66
3	90	80	72	65	87	78	70	64	74	68	63	70	65	61	67	63	59		57
4	83	71	63	56	80	69	61	55	66	59	54	63	57	53	60	55	51		49
5	76	64	55	49	74	62	54	48	60	53	47	57	51	46	55	49	45		43
6	71	58	49	43	68	56	48	42	54	47	42	52	46	41	50	44	40		38
7	66	53	44	38	64	51	43	38	49	42	37	48	41	36	46	40	36		34
8	61	48	40	34	59	47	39	34	45	38	33	44	37	33	42	37	32		30
9	57	44	36	31	56	43	36	31	42	35	30	40	34	30	39	33	29		28
10	54	41	33	28	52	40	33	28	39	32	28	38	31	27	36	31	27		25

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	24787	24787	24787	24787
5°	24808	25258	25043	21831
10°	24296	25796	24769	18606
15°	23887	25704	24292	15557
20°	23631	25196	23733	12727
25°	22660	24028	22974	10472
30°	21637	22962	21918	8651
35°	20494	21671	20551	7051
40°	18785	19824	18775	5780
45°	17100	17498	17187	4925
50°	15124	15272	15053	4449
55°	13239	13378	13147	4087
60°	11514	11412	11414	3863
65°	9981	9827	9742	3670
70°	8351	8611	8066	3509
75°	6646	7828	6473	3378
80°	4923	7045	4471	3147
85°	3084	6803	2483	2950

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 157.5°
 Vertical Angle: 45°
 Luminance: 23939 cd/sqm



TEST NUMBER: P892616
 CATALOG NUMBER: 2MB-3SL-ASML-UNV-L850

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.7	3.8
10°-20°	316.1	10.5
20°-30°	454.7	15.1
30°-40°	516.0	17.1
40°-50°	493.1	16.3
50°-60°	400.7	13.3
60°-70°	279.6	9.3
70°-80°	173.2	5.7
80°-90°	99.4	3.3
90°-100°	59.4	2.0
100°-110°	39.0	1.3
110°-120°	27.3	0.9
120°-130°	19.8	0.7
130°-140°	13.2	0.4
140°-150°	7.4	0.2
150°-160°	3.3	0.1
160°-170°	1.0	0.0
170°-180°	0.1	0.0
0°-30°	884.6	29.3
0°-40°	1400.6	46.4
0°-60°	2294.4	76.0
0°-90°	2846.6	94.4
90°-120°	125.7	4.2
90°-150°	166.1	5.5
90°-180°	170.0	5.6
0°-180°	3017.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1210	1210	1210	1210	1210	
5°	1214	1279	1225	1106	1214	114
15°	1146	1365	1165	826	1146	326
25°	1032	1297	1047	565	1032	476
35°	856	1153	858	375	856	534
45°	628	889	631	250	628	484
55°	404	627	402	191	404	364
65°	234	408	228	152	234	232
75°	104	273	101	118	104	112
85°	23	185	18	80	23	25
90°	1	156	0	61	1	2
95°	1	136	0	47	1	1
105°	1	105	0	25	1	1
115°	1	83	0	14	1	1
125°	1	68	0	9	1	1
135°	1	54	0	7	1	1
145°	1	38	0	5	1	1
155°	1	24	0	3	1	0
165°	1	11	0	1	1	0
175°	1	0	0	0	1	0
180°	0	0	0	0	0	



TEST NUMBER: P892616
 CATALOG NUMBER: 2MB-3SL-ASML-UNV-L850

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1210.5	1210.5	1210.5	1210.5	1210.5	1210.5	1210.5	1210.5	1210.5	1210.5	1210.5
2.5°	1209.3	1218.4	1219.2	1247.7	1239.4	1250.1	1236.6	1239.0	1227.1	1223.9	1182.7
5°	1213.6	1233.1	1238.2	1287.4	1279.4	1285.0	1266.4	1252.9	1225.1	1208.5	1141.9
7.5°	1193.0	1244.2	1272.7	1307.6	1320.7	1325.0	1287.4	1262.4	1216.4	1175.6	1097.5
10°	1181.5	1252.1	1279.8	1332.2	1343.6	1335.3	1306.0	1264.8	1204.5	1138.7	1042.8
12.5°	1175.2	1256.4	1304.8	1358.3	1358.7	1350.0	1315.5	1271.1	1185.1	1099.1	984.9
15°	1145.9	1255.7	1305.2	1359.5	1365.4	1359.9	1324.6	1266.8	1165.3	1049.9	918.4
17.5°	1142.7	1253.7	1317.9	1375.0	1365.1	1361.1	1330.2	1264.8	1141.5	1000.0	855.7
20°	1109.4	1249.3	1317.9	1357.5	1354.3	1355.9	1333.7	1262.0	1114.2	946.1	787.2
22.5°	1074.1	1244.2	1312.3	1342.5	1323.4	1352.4	1317.9	1254.5	1086.4	889.8	719.0
25°	1032.5	1235.8	1301.6	1321.1	1296.9	1319.5	1319.1	1243.0	1046.8	829.2	665.1
27.5°	998.8	1222.8	1284.2	1313.5	1272.3	1291.7	1302.8	1229.1	1000.0	769.3	601.7
30°	948.5	1206.1	1263.2	1267.5	1235.0	1259.6	1272.3	1211.7	960.8	701.6	543.8
32.5°	910.0	1187.1	1237.4	1231.5	1199.0	1231.5	1252.1	1194.2	914.0	642.1	503.0
35°	856.1	1164.1	1205.3	1174.0	1152.6	1179.6	1203.7	1175.6	858.5	578.7	450.7
37.5°	803.8	1143.9	1166.9	1128.0	1098.7	1128.8	1181.9	1140.7	802.6	528.3	411.8
40°	740.0	1097.5	1116.5	1063.8	1034.5	1078.9	1127.6	1110.6	739.6	476.0	374.2
42.5°	691.6	1063.0	1068.6	996.4	961.6	1008.7	1064.2	1067.8	688.5	428.9	340.9
45°	627.8	1014.7	1004.4	925.1	888.6	931.0	1014.3	1023.8	631.0	388.0	308.4
47.5°	570.4	960.8	940.6	847.8	807.0	857.3	949.7	974.6	566.8	350.4	277.8
50°	510.5	900.5	855.7	775.7	748.3	773.3	867.6	908.8	508.1	313.1	254.5
52.5°	455.8	833.9	778.4	706.7	679.4	700.0	781.6	843.4	449.9	281.8	233.9
55°	404.3	767.3	695.6	632.2	626.6	633.0	694.4	765.4	401.5	254.1	220.8
57.5°	358.3	686.5	621.1	574.3	564.4	569.6	612.0	684.9	354.7	226.3	201.7
60°	311.9	603.7	547.4	511.3	505.8	509.7	537.1	606.4	309.2	202.9	183.9
62.5°	269.9	520.4	470.5	457.0	453.0	453.0	464.5	527.9	266.4	179.2	170.4
65°	233.9	449.1	411.4	406.3	407.5	407.1	399.9	440.7	228.3	158.1	158.5
67.5°	197.4	373.4	352.4	358.7	363.5	361.5	346.4	366.6	192.6	139.1	147.8
70°	163.7	308.4	304.4	318.7	329.8	319.5	297.7	299.6	158.1	120.5	134.0
72.5°	132.0	249.3	267.5	287.4	298.1	286.6	256.4	247.7	127.2	103.4	121.3
75°	103.8	200.6	229.5	258.8	272.7	258.0	223.1	193.4	101.1	87.2	111.0
77.5°	79.3	158.9	196.2	230.3	243.8	231.1	194.2	151.0	74.1	73.3	99.9
80°	56.7	125.6	174.0	206.9	219.2	206.9	168.5	119.3	51.5	58.7	88.0
82.5°	37.3	97.1	151.4	188.3	201.7	186.7	146.3	92.0	32.9	47.6	79.3
85°	22.6	76.9	132.0	169.2	184.7	170.0	128.0	69.8	18.2	36.5	69.0
87.5°	9.9	59.5	117.7	156.2	170.0	156.6	114.2	54.7	7.5	28.5	59.1
90°	0.8	47.2	103.8	143.9	156.2	143.5	101.1	44.4	0.0	20.6	50.7
92.5°	0.8	40.4	95.1	133.2	147.0	132.8	91.2	36.5	0.0	15.1	42.8
95°	1.2	34.1	86.4	124.9	136.0	123.7	83.2	31.3	0.0	10.3	36.1
97.5°	1.2	30.9	79.3	116.5	128.8	115.7	76.1	28.1	0.0	7.5	29.3
100°	0.8	28.5	73.7	108.6	120.1	107.8	70.6	25.4	0.0	4.8	23.8
102.5°	0.8	26.6	69.0	101.9	111.0	100.7	65.8	23.8	0.0	4.0	19.4
105°	0.8	25.4	64.6	93.9	104.6	93.9	61.8	22.2	0.0	3.2	15.1
107.5°	0.8	23.8	61.4	89.6	98.3	88.8	58.7	21.0	0.0	3.2	12.3
110°	0.8	22.6	58.7	83.2	93.1	84.0	55.9	19.0	0.0	2.0	9.9



TEST NUMBER: P892616
 CATALOG NUMBER: 2MB-3SL-ASML-UNV-L850

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	0.8	20.6	55.9	78.9	88.4	79.3	53.5	17.4	0.0	2.0	8.7
115°	0.8	18.6	53.5	76.1	83.2	75.3	51.1	15.5	0.0	1.6	7.9
117.5°	0.8	17.4	51.9	72.5	79.7	71.7	49.1	14.7	0.0	1.6	7.5
120°	0.8	16.6	49.5	69.0	74.5	68.2	46.8	13.9	0.0	1.6	7.1
122.5°	0.8	15.9	47.6	65.8	71.7	65.4	44.8	13.5	0.0	1.2	6.3
125°	0.8	15.1	44.8	62.2	67.8	61.4	41.2	13.1	0.0	0.8	5.5
127.5°	0.8	14.3	42.0	59.5	64.6	58.7	38.8	12.7	0.0	0.8	5.2
130°	0.8	13.9	38.4	55.9	61.0	55.1	36.1	12.7	0.0	0.8	4.8
132.5°	0.8	13.5	34.5	52.3	57.9	51.5	33.3	12.3	0.0	0.8	4.0
135°	0.8	13.1	30.5	48.8	53.9	48.0	30.9	11.9	0.0	0.8	3.6
137.5°	0.8	12.3	27.0	44.8	49.9	44.0	29.3	11.1	0.0	0.8	3.2
140°	0.8	11.5	24.2	41.6	46.0	40.4	27.0	10.3	0.0	0.4	2.4
142.5°	0.8	10.3	21.8	37.7	42.0	36.9	24.2	8.7	0.0	0.4	2.4
145°	0.8	9.1	19.8	32.9	38.1	32.9	22.6	7.9	0.0	0.4	2.0
147.5°	0.8	8.3	17.8	27.7	34.5	30.1	20.2	6.7	0.0	0.4	1.6
150°	0.8	7.5	15.5	23.4	30.5	26.6	18.6	5.9	0.0	0.0	1.2
152.5°	0.8	6.7	13.5	19.4	27.3	24.2	16.6	5.2	0.0	0.0	0.8
155°	1.2	6.3	11.5	17.0	23.8	21.0	13.9	4.4	0.0	0.0	0.8
157.5°	1.2	5.5	9.5	13.9	21.0	18.2	11.1	3.6	0.0	0.0	0.4
160°	1.2	5.2	7.9	10.7	17.4	15.1	9.1	2.8	0.0	0.0	0.4
162.5°	1.2	4.8	6.7	7.9	14.3	11.9	7.1	2.0	0.0	0.0	0.4
165°	1.2	4.0	5.9	5.5	11.1	9.1	5.5	1.2	0.0	0.0	0.0
167.5°	1.2	3.6	4.8	4.0	8.3	6.7	4.0	0.8	0.0	0.0	0.0
170°	1.2	2.8	4.0	2.8	2.4	4.4	2.4	0.4	0.0	0.0	0.0
172.5°	1.2	2.4	3.2	2.0	0.8	2.4	1.2	0.0	0.0	0.0	0.0
175°	1.2	2.0	2.0	1.2	0.4	0.8	0.0	0.0	0.0	0.0	0.0
177.5°	1.2	1.6	1.2	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: P892616

CATALOG NUMBER: 2MB-3SL-ASML-UNV-L850

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1210.5	1210.5	1210.5	1210.5	1210.5	1210.5
2.5°	1177.2	1164.1	1152.2	1164.9	1174.0	1209.3
5°	1119.7	1105.8	1107.4	1118.9	1149.4	1213.6
7.5°	1060.3	1037.3	1042.8	1074.9	1120.1	1193.0
10°	990.1	969.1	974.2	1022.6	1086.0	1181.5
12.5°	927.5	892.2	922.3	967.9	1046.4	1175.2
15°	854.1	826.4	842.7	910.0	1008.3	1145.9
17.5°	774.9	753.5	772.9	839.9	961.6	1142.7
20°	713.8	684.1	707.1	780.8	903.7	1109.4
22.5°	645.3	622.7	646.9	714.6	844.6	1074.1
25°	589.0	565.2	589.4	656.8	792.3	1032.5
27.5°	534.3	512.5	534.3	596.1	740.4	998.8
30°	486.3	465.3	487.5	547.0	679.8	948.5
32.5°	441.5	414.6	443.1	500.6	626.2	910.0
35°	395.2	375.0	396.4	460.2	566.8	856.1
37.5°	356.7	335.7	361.1	415.8	516.5	803.8
40°	320.3	301.6	321.8	380.1	473.6	740.0
42.5°	291.7	273.1	293.7	347.6	430.4	691.6
45°	264.0	250.1	266.7	311.9	386.8	627.8
47.5°	243.8	231.9	245.7	285.8	350.4	570.4
50°	226.3	218.0	227.9	259.6	312.7	510.5
52.5°	210.9	202.5	214.0	239.4	283.0	455.8
55°	199.0	191.4	200.2	220.4	253.3	404.3
57.5°	185.9	181.1	187.9	200.2	229.9	358.3
60°	176.4	171.2	178.4	188.3	203.3	311.9
62.5°	165.7	162.9	167.3	175.2	183.1	269.9
65°	156.2	152.2	157.7	160.5	159.7	233.9
67.5°	145.9	144.7	147.8	148.2	142.3	197.4
70°	135.2	134.4	138.3	136.0	123.7	163.7
72.5°	126.4	126.4	128.8	124.1	107.8	132.0
75°	116.9	117.7	119.7	114.2	90.8	103.8
77.5°	108.2	109.0	109.4	101.9	76.1	79.3
80°	98.3	97.9	101.9	92.4	61.8	56.7
82.5°	89.6	88.0	90.4	80.9	49.9	37.3
85°	79.7	80.1	81.6	70.6	40.0	22.6
87.5°	71.7	71.7	73.3	62.2	30.1	9.9
90°	62.2	61.4	63.8	52.7	22.6	0.8
92.5°	54.3	54.3	55.9	45.2	16.6	0.8
95°	46.4	46.8	48.0	37.3	12.7	1.2
97.5°	39.6	40.0	41.6	31.7	9.1	1.2
100°	33.7	34.1	34.9	25.4	7.1	0.8
102.5°	28.1	29.3	29.3	21.0	5.5	0.8
105°	23.8	25.4	24.6	17.0	5.2	0.8
107.5°	19.8	21.4	21.4	13.9	5.2	0.8
110°	16.3	18.6	18.2	11.9	4.0	0.8



TEST NUMBER: P892616

CATALOG NUMBER: 2MB-3SL-ASML-UNV-L850

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	13.9	15.9	14.7	10.3	4.0	0.8
115°	11.9	13.9	13.1	9.5	3.6	0.8
117.5°	10.7	11.9	11.9	9.1	3.6	0.8
120°	9.9	11.1	10.7	8.7	3.6	0.8
122.5°	9.1	9.9	9.9	7.9	3.2	0.8
125°	8.7	9.1	9.5	7.1	3.2	0.8
127.5°	8.3	9.1	9.1	6.7	2.8	0.8
130°	7.5	8.3	8.3	6.3	2.8	0.8
132.5°	6.7	7.5	7.5	5.9	2.8	0.8
135°	6.3	7.1	7.1	5.5	2.8	0.8
137.5°	5.9	6.3	6.3	5.2	2.8	0.8
140°	5.2	5.9	5.9	4.8	2.8	0.8
142.5°	4.8	5.5	5.5	4.4	2.4	0.8
145°	4.4	4.8	5.2	4.0	2.4	0.8
147.5°	3.6	4.4	4.8	3.6	2.4	0.8
150°	2.8	4.0	4.0	3.6	2.4	0.8
152.5°	2.0	3.6	3.6	3.2	2.0	0.8
155°	1.6	2.8	3.2	2.8	2.0	1.2
157.5°	1.2	2.4	2.8	2.8	2.0	1.2
160°	0.8	2.0	2.4	2.4	1.6	1.2
162.5°	0.4	1.6	2.0	2.4	1.6	1.2
165°	0.0	1.2	1.6	2.0	1.6	1.2
167.5°	0.0	0.8	1.2	1.6	1.2	1.2
170°	0.0	0.4	0.8	1.2	1.2	1.2
172.5°	0.0	0.0	0.4	0.8	0.8	1.2
175°	0.0	0.0	0.0	0.4	0.8	1.2
177.5°	0.0	0.0	0.0	0.4	0.8	1.2
180°	0.4	0.4	0.4	0.4	0.4	0.4



TEST NUMBER: P892616
 CATALOG NUMBER: 2MB-3SL-ASML-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	20.04	21.50	20.49	21.93	22.39	22.20	23.66	22.66	24.09	24.55
	3H	20.86	22.18	21.33	22.62	23.12	23.87	25.19	24.34	25.63	26.13
	4H	21.07	22.31	21.56	22.77	23.28	24.68	25.93	25.17	26.39	26.90
	6H	21.16	22.31	21.66	22.79	23.31	25.52	26.67	26.02	27.14	27.67
	8H	21.16	22.26	21.68	22.76	23.29	25.95	27.05	26.47	27.55	28.09
	12H	21.15	22.20	21.67	22.69	23.26	26.44	27.49	26.96	27.99	28.55
4H	2H	20.46	21.71	20.95	22.17	22.68	22.57	23.82	23.06	24.28	24.79
	3H	21.56	22.61	22.06	23.11	23.65	24.43	25.47	24.93	25.98	26.51
	4H	21.90	22.85	22.42	23.37	23.94	25.37	26.32	25.89	26.84	27.41
	6H	22.09	22.92	22.64	23.47	24.05	26.37	27.20	26.91	27.75	28.33
	8H	22.12	22.90	22.67	23.44	24.04	26.90	27.68	27.45	28.22	28.82
	12H	22.13	22.83	22.70	23.40	24.00	27.50	28.20	28.07	28.78	29.38
8H	4H	22.22	23.00	22.77	23.54	24.14	25.52	26.30	26.07	26.84	27.44
	6H	22.54	23.19	23.12	23.78	24.38	26.65	27.30	27.23	27.89	28.49
	8H	22.63	23.22	23.22	23.82	24.43	27.29	27.88	27.89	28.48	29.10
	12H	22.68	23.21	23.28	23.79	24.48	28.05	28.58	28.65	29.16	29.85
12H	4H	22.29	22.99	22.86	23.57	24.17	25.51	26.21	26.08	26.79	27.39
	6H	22.67	23.26	23.27	23.86	24.47	26.66	27.25	27.26	27.85	28.47
	8H	22.83	23.35	23.42	23.94	24.62	27.37	27.89	27.96	28.48	29.16