

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: P892615

Luminaire Tested: 2MB-3SL-ASML-UNV-L840

Issue Date: 11/11/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P892615  
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-L840  
Description: 3000 Lumen 2FT MICROBAY LINEAR BAY with ASYMMETRIC LENS, 80CRI, 4000K CCT  
Light Source: -  
Ballast/Driver: -

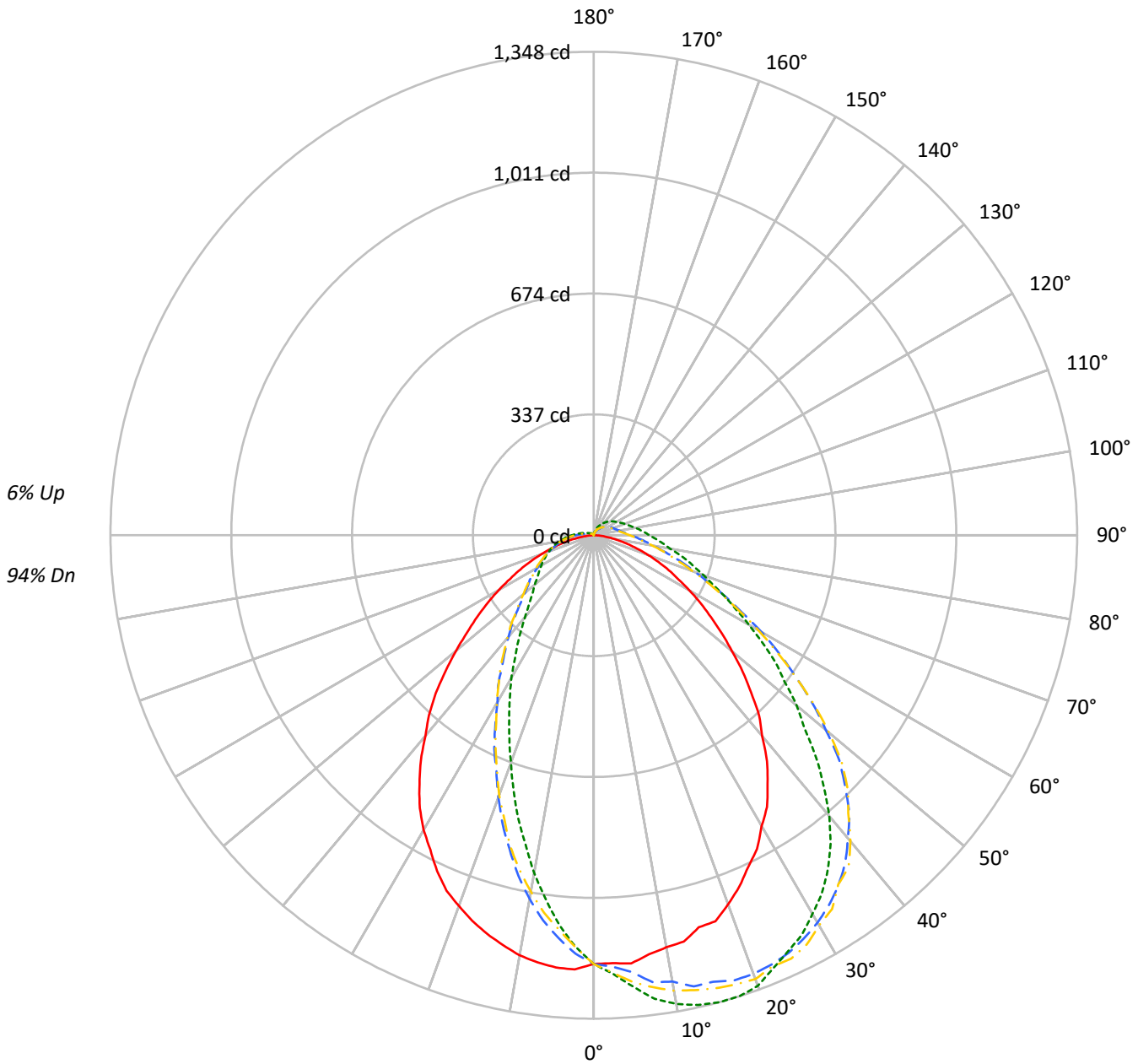
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2979.0 lumens  
Efficiency: N/A  
Efficacy: 141.9 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<sub>in</sub>): 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



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



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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
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°	24474	24474	24474	24474
5°	24497	24940	24728	21556
10°	23991	25472	24458	18372
15°	23585	25380	23985	15361
20°	23333	24879	23433	12567
25°	22375	23725	22684	10340
30°	21364	22674	21642	8543
35°	20235	21398	20293	6960
40°	18549	19575	18538	5707
45°	16885	17277	16972	4864
50°	14934	15081	14863	4394
55°	13072	13210	12984	4035
60°	11370	11268	11270	3815
65°	9853	9701	9618	3624
70°	8244	8502	7969	3465
75°	6562	7730	6389	3335
80°	4862	6955	4419	3108
85°	3043	6718	2456	2913

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 157.5°  
 Vertical Angle: 45°  
 Luminance: 23638 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	112.3	3.8
10°-20°	312.1	10.5
20°-30°	449.0	15.1
30°-40°	509.5	17.1
40°-50°	486.9	16.3
50°-60°	395.7	13.3
60°-70°	276.1	9.3
70°-80°	171.0	5.7
80°-90°	98.1	3.3
90°-100°	58.6	2.0
100°-110°	38.5	1.3
110°-120°	27.0	0.9
120°-130°	19.5	0.7
130°-140°	13.0	0.4
140°-150°	7.3	0.2
150°-160°	3.3	0.1
160°-170°	0.9	0.0
170°-180°	0.1	0.0
0°-30°	873.4	29.3
0°-40°	1382.9	46.4
0°-60°	2265.5	76.0
0°-90°	2810.7	94.4
90°-120°	124.1	4.2
90°-150°	164.0	5.5
90°-180°	168.0	5.6
0°-180°	2979.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1195	1195	1195	1195	1195	
5°	1198	1263	1210	1092	1198	113
15°	1131	1348	1151	816	1131	322
25°	1020	1280	1034	558	1020	470
35°	845	1138	848	370	845	527
45°	620	877	623	247	620	478
55°	399	619	396	189	399	359
65°	231	402	225	150	231	229
75°	102	269	100	116	102	111
85°	22	182	18	79	22	25
90°	1	154	0	61	1	2
95°	1	134	0	46	1	1
105°	1	103	0	25	1	1
115°	1	82	0	14	1	1
125°	1	67	0	9	1	1
135°	1	53	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	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1195.2	1195.2	1195.2	1195.2	1195.2	1195.2	1195.2	1195.2	1195.2	1195.2	1195.2
2.5°	1194.1	1203.1	1203.8	1232.0	1223.8	1234.4	1221.1	1223.4	1211.7	1208.5	1167.8
5°	1198.4	1217.5	1222.6	1271.1	1263.3	1268.8	1250.4	1237.1	1209.7	1193.3	1127.5
7.5°	1178.0	1228.5	1256.7	1291.1	1304.0	1308.3	1271.1	1246.5	1201.1	1160.8	1083.7
10°	1166.7	1236.3	1263.7	1315.4	1326.7	1318.5	1289.5	1248.8	1189.4	1124.4	1029.7
12.5°	1160.4	1240.6	1288.4	1341.2	1341.6	1333.0	1298.9	1255.1	1170.2	1085.3	972.5
15°	1131.4	1239.8	1288.8	1342.4	1348.2	1342.8	1307.9	1250.8	1150.6	1036.7	906.8
17.5°	1128.3	1237.9	1301.3	1357.6	1347.9	1343.9	1313.4	1248.8	1127.1	987.4	845.0
20°	1095.4	1233.6	1301.3	1340.4	1337.3	1338.9	1316.9	1246.1	1100.1	934.2	777.2
22.5°	1060.6	1228.5	1295.8	1325.5	1306.8	1335.3	1301.3	1238.7	1072.7	878.6	709.9
25°	1019.5	1220.3	1285.2	1304.4	1280.5	1302.9	1302.5	1227.3	1033.6	818.7	656.7
27.5°	986.2	1207.4	1268.0	1297.0	1256.3	1275.5	1286.4	1213.6	987.4	759.6	594.1
30°	936.5	1190.9	1247.3	1251.6	1219.5	1243.8	1256.3	1196.4	948.7	692.7	537.0
32.5°	898.6	1172.1	1221.8	1216.0	1183.9	1216.0	1236.3	1179.2	902.5	634.0	496.6
35°	845.3	1149.4	1190.1	1159.2	1138.1	1164.7	1188.6	1160.8	847.7	571.4	445.0
37.5°	793.7	1129.5	1152.2	1113.8	1084.9	1114.6	1167.0	1126.3	792.5	521.7	406.6
40°	730.7	1083.7	1102.5	1050.4	1021.5	1065.3	1113.4	1096.6	730.3	470.0	369.4
42.5°	682.9	1049.6	1055.1	983.9	949.4	996.0	1050.8	1054.3	679.8	423.5	336.6
45°	619.9	1001.9	991.7	913.4	877.4	919.3	1001.5	1010.9	623.1	383.1	304.5
47.5°	563.2	948.7	928.7	837.1	796.8	846.5	937.7	962.4	559.7	346.0	274.3
50°	504.1	889.2	845.0	765.9	738.9	763.6	856.7	897.4	501.7	309.2	251.3
52.5°	450.1	823.4	768.6	697.8	670.8	691.1	771.8	832.8	444.2	278.3	230.9
55°	399.2	757.7	686.8	624.2	618.7	625.0	685.7	755.7	396.5	250.9	218.0
57.5°	353.8	677.8	613.3	567.1	557.3	562.4	604.3	676.3	350.3	223.5	199.2
60°	308.0	596.0	540.5	504.9	499.4	503.3	530.3	598.8	305.3	200.4	181.6
62.5°	266.5	513.9	464.5	451.2	447.3	447.3	458.7	521.3	263.0	176.9	168.3
65°	230.9	443.4	406.2	401.1	402.3	401.9	394.9	435.2	225.4	156.2	156.5
67.5°	194.9	368.7	347.9	354.2	358.9	356.9	342.1	362.0	190.2	137.4	146.0
70°	161.6	304.5	300.6	314.7	325.6	315.4	293.9	295.9	156.2	119.0	132.3
72.5°	130.3	246.2	264.2	283.7	294.3	283.0	253.2	244.6	125.6	102.1	119.8
75°	102.5	198.0	226.6	255.6	269.3	254.8	220.3	191.0	99.8	86.1	109.6
77.5°	78.3	156.9	193.7	227.4	240.7	228.2	191.8	149.1	73.2	72.4	98.6
80°	56.0	124.1	171.8	204.3	216.4	204.3	166.3	117.8	50.9	57.9	86.9
82.5°	36.8	95.9	149.5	185.9	199.2	184.3	144.4	90.8	32.5	47.0	78.3
85°	22.3	75.9	130.3	167.1	182.4	167.9	126.4	68.9	18.0	36.0	68.1
87.5°	9.8	58.7	116.2	154.2	167.9	154.6	112.7	54.0	7.4	28.2	58.3
90°	0.8	46.6	102.5	142.1	154.2	141.7	99.8	43.8	0.0	20.4	50.1
92.5°	0.8	39.9	93.9	131.5	145.2	131.1	90.0	36.0	0.0	14.9	42.3
95°	1.2	33.7	85.3	123.3	134.2	122.1	82.2	30.9	0.0	10.2	35.6
97.5°	1.2	30.5	78.3	115.1	127.2	114.3	75.1	27.8	0.0	7.4	29.0
100°	0.8	28.2	72.8	107.2	118.6	106.5	69.7	25.0	0.0	4.7	23.5
102.5°	0.8	26.2	68.1	100.6	109.6	99.4	65.0	23.5	0.0	3.9	19.2
105°	0.8	25.0	63.8	92.8	103.3	92.8	61.1	21.9	0.0	3.1	14.9
107.5°	0.8	23.5	60.7	88.4	97.1	87.7	57.9	20.7	0.0	3.1	12.1
110°	0.8	22.3	57.9	82.2	92.0	83.0	55.2	18.8	0.0	2.0	9.8



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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°	0.8	20.4	55.2	77.9	87.3	78.3	52.8	17.2	0.0	2.0	8.6
115°	0.8	18.4	52.8	75.1	82.2	74.4	50.5	15.3	0.0	1.6	7.8
117.5°	0.8	17.2	51.3	71.6	78.7	70.8	48.5	14.5	0.0	1.6	7.4
120°	0.8	16.4	48.9	68.1	73.6	67.3	46.2	13.7	0.0	1.6	7.0
122.5°	0.8	15.7	47.0	65.0	70.8	64.6	44.2	13.3	0.0	1.2	6.3
125°	0.8	14.9	44.2	61.4	66.9	60.7	40.7	12.9	0.0	0.8	5.5
127.5°	0.8	14.1	41.5	58.7	63.8	57.9	38.4	12.5	0.0	0.8	5.1
130°	0.8	13.7	38.0	55.2	60.3	54.4	35.6	12.5	0.0	0.8	4.7
132.5°	0.8	13.3	34.0	51.7	57.1	50.9	32.9	12.1	0.0	0.8	3.9
135°	0.8	12.9	30.1	48.1	53.2	47.4	30.5	11.7	0.0	0.8	3.5
137.5°	0.8	12.1	26.6	44.2	49.3	43.4	29.0	11.0	0.0	0.8	3.1
140°	0.8	11.3	23.9	41.1	45.4	39.9	26.6	10.2	0.0	0.4	2.3
142.5°	0.8	10.2	21.5	37.2	41.5	36.4	23.9	8.6	0.0	0.4	2.3
145°	0.8	9.0	19.6	32.5	37.6	32.5	22.3	7.8	0.0	0.4	2.0
147.5°	0.8	8.2	17.6	27.4	34.0	29.7	20.0	6.7	0.0	0.4	1.6
150°	0.8	7.4	15.3	23.1	30.1	26.2	18.4	5.9	0.0	0.0	1.2
152.5°	0.8	6.7	13.3	19.2	27.0	23.9	16.4	5.1	0.0	0.0	0.8
155°	1.2	6.3	11.3	16.8	23.5	20.7	13.7	4.3	0.0	0.0	0.8
157.5°	1.2	5.5	9.4	13.7	20.7	18.0	11.0	3.5	0.0	0.0	0.4
160°	1.2	5.1	7.8	10.6	17.2	14.9	9.0	2.7	0.0	0.0	0.4
162.5°	1.2	4.7	6.7	7.8	14.1	11.7	7.0	2.0	0.0	0.0	0.4
165°	1.2	3.9	5.9	5.5	11.0	9.0	5.5	1.2	0.0	0.0	0.0
167.5°	1.2	3.5	4.7	3.9	8.2	6.7	3.9	0.8	0.0	0.0	0.0
170°	1.2	2.7	3.9	2.7	2.3	4.3	2.3	0.4	0.0	0.0	0.0
172.5°	1.2	2.3	3.1	2.0	0.8	2.3	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



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**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1195.2	1195.2	1195.2	1195.2	1195.2	1195.2
2.5°	1162.4	1149.4	1137.7	1150.2	1159.2	1194.1
5°	1105.6	1091.9	1093.5	1104.8	1135.0	1198.4
7.5°	1046.9	1024.2	1029.7	1061.4	1106.0	1178.0
10°	977.6	956.9	962.0	1009.7	1072.3	1166.7
12.5°	915.8	881.0	910.7	955.7	1033.2	1160.4
15°	843.4	816.0	832.0	898.6	995.6	1131.4
17.5°	765.1	744.0	763.2	829.3	949.4	1128.3
20°	704.8	675.5	698.2	771.0	892.3	1095.4
22.5°	637.1	614.8	638.7	705.6	834.0	1060.6
25°	581.6	558.1	582.0	648.5	782.3	1019.5
27.5°	527.6	506.0	527.6	588.6	731.1	986.2
30°	480.2	459.5	481.4	540.1	671.2	936.5
32.5°	436.0	409.4	437.5	494.3	618.4	898.6
35°	390.2	370.2	391.4	454.4	559.7	845.3
37.5°	352.2	331.5	356.5	410.5	509.9	793.7
40°	316.2	297.8	317.8	375.3	467.7	730.7
42.5°	288.0	269.6	290.0	343.2	425.0	682.9
45°	260.6	247.0	263.4	308.0	382.0	619.9
47.5°	240.7	228.9	242.6	282.2	346.0	563.2
50°	223.5	215.3	225.0	256.3	308.8	504.1
52.5°	208.2	200.0	211.3	236.4	279.4	450.1
55°	196.5	189.0	197.6	217.6	250.1	399.2
57.5°	183.5	178.9	185.5	197.6	227.0	353.8
60°	174.2	169.1	176.1	185.9	200.8	308.0
62.5°	163.6	160.9	165.2	173.0	180.8	266.5
65°	154.2	150.3	155.8	158.5	157.7	230.9
67.5°	144.0	142.8	146.0	146.4	140.5	194.9
70°	133.5	132.7	136.6	134.2	122.1	161.6
72.5°	124.8	124.8	127.2	122.5	106.5	130.3
75°	115.5	116.2	118.2	112.7	89.6	102.5
77.5°	106.8	107.6	108.0	100.6	75.1	78.3
80°	97.1	96.7	100.6	91.2	61.1	56.0
82.5°	88.4	86.9	89.2	79.8	49.3	36.8
85°	78.7	79.1	80.6	69.7	39.5	22.3
87.5°	70.8	70.8	72.4	61.4	29.7	9.8
90°	61.4	60.7	63.0	52.1	22.3	0.8
92.5°	53.6	53.6	55.2	44.6	16.4	0.8
95°	45.8	46.2	47.4	36.8	12.5	1.2
97.5°	39.1	39.5	41.1	31.3	9.0	1.2
100°	33.3	33.7	34.4	25.0	7.0	0.8
102.5°	27.8	29.0	29.0	20.7	5.5	0.8
105°	23.5	25.0	24.3	16.8	5.1	0.8
107.5°	19.6	21.1	21.1	13.7	5.1	0.8
110°	16.0	18.4	18.0	11.7	3.9	0.8





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**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	13.7	15.7	14.5	10.2	3.9	0.8
115°	11.7	13.7	12.9	9.4	3.5	0.8
117.5°	10.6	11.7	11.7	9.0	3.5	0.8
120°	9.8	11.0	10.6	8.6	3.5	0.8
122.5°	9.0	9.8	9.8	7.8	3.1	0.8
125°	8.6	9.0	9.4	7.0	3.1	0.8
127.5°	8.2	9.0	9.0	6.7	2.7	0.8
130°	7.4	8.2	8.2	6.3	2.7	0.8
132.5°	6.7	7.4	7.4	5.9	2.7	0.8
135°	6.3	7.0	7.0	5.5	2.7	0.8
137.5°	5.9	6.3	6.3	5.1	2.7	0.8
140°	5.1	5.9	5.9	4.7	2.7	0.8
142.5°	4.7	5.5	5.5	4.3	2.3	0.8
145°	4.3	4.7	5.1	3.9	2.3	0.8
147.5°	3.5	4.3	4.7	3.5	2.3	0.8
150°	2.7	3.9	3.9	3.5	2.3	0.8
152.5°	2.0	3.5	3.5	3.1	2.0	0.8
155°	1.6	2.7	3.1	2.7	2.0	1.2
157.5°	1.2	2.3	2.7	2.7	2.0	1.2
160°	0.8	2.0	2.3	2.3	1.6	1.2
162.5°	0.4	1.6	2.0	2.3	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: P892615  
 CATALOG NUMBER: 2MB-3SL-ASML-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	20.00	21.45	20.45	21.89	22.34	22.16	23.62	22.61	24.05	24.50
	3H	20.82	22.14	21.29	22.58	23.08	23.83	25.15	24.30	25.59	26.09
	4H	21.02	22.27	21.51	22.73	23.24	24.64	25.88	25.13	26.34	26.86
	6H	21.11	22.27	21.62	22.74	23.27	25.47	26.62	25.97	27.10	27.63
	8H	21.12	22.22	21.63	22.71	23.25	25.91	27.01	26.42	27.51	28.04
	12H	21.10	22.16	21.62	22.65	23.21	26.40	27.45	26.92	27.94	28.50
4H	2H	20.42	21.66	20.91	22.12	22.64	22.53	23.77	23.02	24.23	24.75
	3H	21.52	22.56	22.02	23.07	23.60	24.38	25.43	24.88	25.93	26.47
	4H	21.86	22.80	22.38	23.32	23.89	25.33	26.28	25.85	26.80	27.36
	6H	22.05	22.88	22.59	23.42	24.01	26.33	27.16	26.87	27.70	28.29
	8H	22.08	22.86	22.63	23.40	23.99	26.85	27.63	27.40	28.18	28.77
	12H	22.08	22.79	22.65	23.36	23.96	27.46	28.16	28.02	28.73	29.33
8H	4H	22.17	22.95	22.72	23.50	24.09	25.47	26.25	26.02	26.80	27.39
	6H	22.49	23.15	23.08	23.74	24.34	26.60	27.26	27.19	27.85	28.45
	8H	22.58	23.17	23.18	23.77	24.39	27.25	27.84	27.84	28.44	29.05
	12H	22.64	23.16	23.23	23.75	24.43	28.01	28.53	28.60	29.12	29.80
12H	4H	22.25	22.95	22.82	23.52	24.12	25.47	26.17	26.04	26.74	27.34
	6H	22.63	23.22	23.22	23.82	24.43	26.62	27.21	27.21	27.81	28.42
	8H	22.78	23.31	23.38	23.89	24.58	27.32	27.85	27.92	28.43	29.11