

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: P892967

Luminaire Tested: 2MB-SC3-ASML-UNV-CC93-HI-4000K

Issue Date: 11/11/2024

**Test Information**

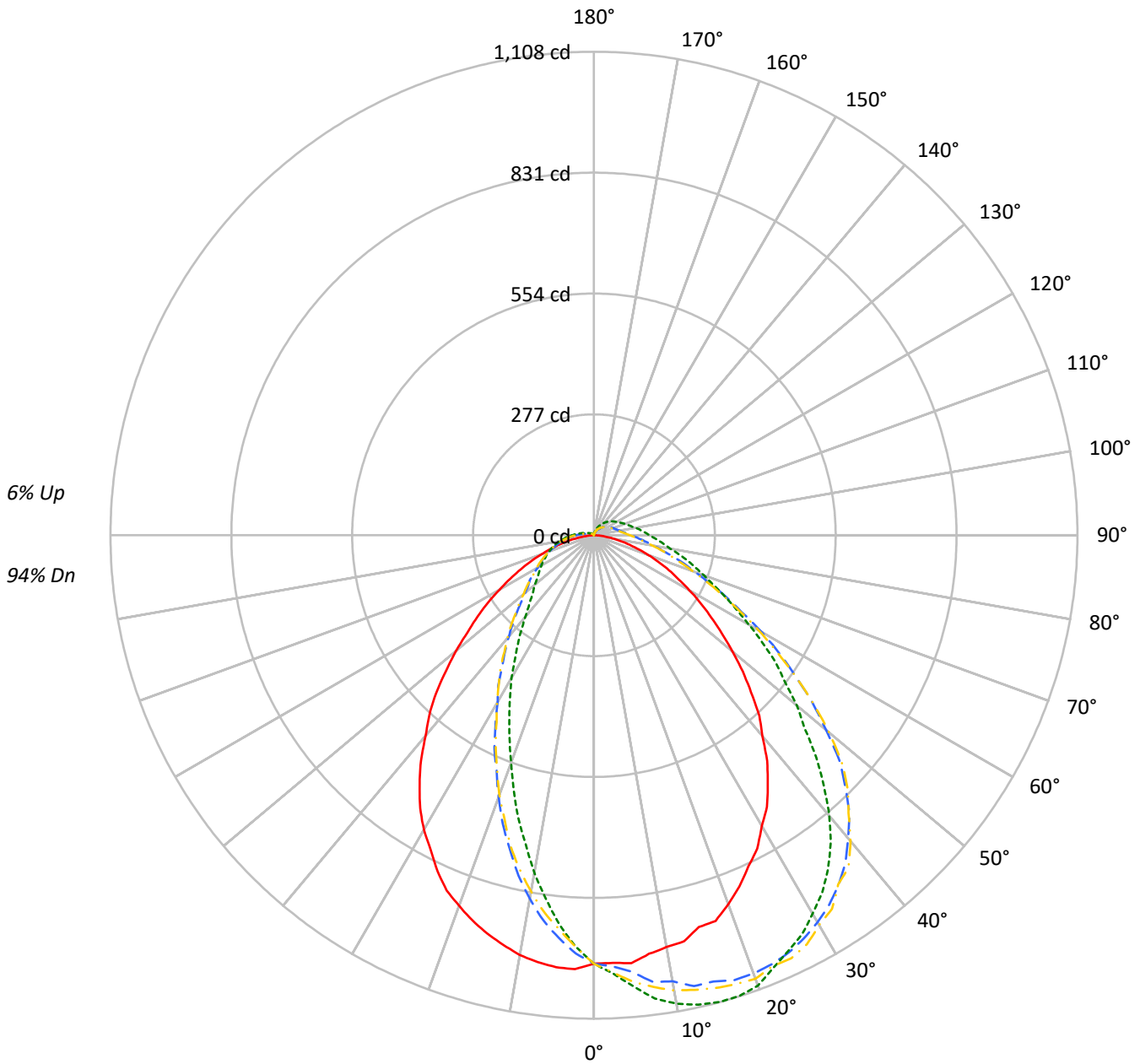
Test Method: LM-79-2019  
Report Number: P892967  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-33)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 2MB-SC3-ASML-UNV-CC93-HI-4000K  
Description: Selectable 2FT MICROBAY LINEAR BAY with ASYMMETRIC LENS, 90CRI, 4000K CCT, HI lumen setting  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2447.0 lumens  
Efficiency: N/A  
Efficacy: 116.5 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: 0.996  
Total Harmonic Distortion (THDi): 5.39961257980444  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

TEST NUMBER: P892967  
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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	0
RCR																					
0	118	118	118	118	114	114	114	114	108	108	108	102	102	102	97	97	97	97	97	97	94
1	107	103	98	94	104	100	96	92	95	91	88	90	87	85	85	83	81	81	81	81	79
2	98	90	83	78	95	88	82	76	83	78	74	79	75	71	75	72	69	69	69	69	66
3	90	80	72	65	87	78	70	64	74	68	63	70	65	61	67	63	59	59	59	59	57
4	83	71	63	56	80	69	61	55	66	59	54	63	57	53	60	55	51	51	51	51	49
5	76	64	55	49	74	62	54	48	60	53	47	57	51	46	55	49	45	45	45	45	43
6	71	58	49	43	68	56	48	42	54	47	42	52	46	41	50	44	40	40	40	40	38
7	66	53	44	38	64	51	43	38	49	42	37	48	41	36	46	40	36	36	36	36	34
8	61	48	40	34	59	47	39	34	45	38	33	44	37	33	42	37	32	32	32	32	30
9	57	44	36	31	56	43	36	31	42	35	30	40	34	30	39	33	29	29	29	29	28
10	54	41	33	28	52	40	33	28	39	32	28	38	31	27	36	31	27	27	27	27	25

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	20104	20104	20104	20104
5°	20121	20486	20313	17707
10°	19706	20923	20090	15091
15°	19374	20849	19702	12618
20°	19167	20437	19250	10323
25°	18378	19489	18633	8493
30°	17550	18624	17775	7017
35°	16623	17576	16668	5718
40°	15236	16078	15228	4687
45°	13869	14192	13940	3993
50°	12268	12387	12209	3608
55°	10737	10850	10665	3316
60°	9339	9255	9254	3134
65°	8095	7970	7903	2976
70°	6775	6985	6545	2846
75°	5391	6349	5250	2741
80°	3994	5715	3629	2552
85°	2497	5517	2019	2390

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 157.5°  
 Vertical Angle: 45°  
 Luminance: 19417 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	92.2	3.8
10°-20°	256.4	10.5
20°-30°	368.8	15.1
30°-40°	418.5	17.1
40°-50°	400.0	16.3
50°-60°	325.0	13.3
60°-70°	226.8	9.3
70°-80°	140.5	5.7
80°-90°	80.6	3.3
90°-100°	48.2	2.0
100°-110°	31.6	1.3
110°-120°	22.2	0.9
120°-130°	16.1	0.7
130°-140°	10.7	0.4
140°-150°	6.0	0.2
150°-160°	2.7	0.1
160°-170°	0.8	0.0
170°-180°	0.1	0.0
0°-30°	717.4	29.3
0°-40°	1136.0	46.4
0°-60°	1860.9	76.1
0°-90°	2308.8	94.4
90°-120°	101.9	4.2
90°-150°	134.7	5.5
90°-180°	138.0	5.6
0°-180°	2447.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	982	982	982	982	982	
5°	984	1038	994	897	984	93
15°	929	1108	945	670	929	264
25°	837	1052	849	458	837	386
35°	694	935	696	304	694	433
45°	509	721	512	203	509	393
55°	328	508	326	155	328	295
65°	190	330	185	123	190	188
75°	84	221	82	96	84	91
85°	18	150	15	65	18	21
90°	1	127	0	50	1	1
95°	1	110	0	38	1	1
105°	1	85	0	21	1	1
115°	1	68	0	11	1	1
125°	1	55	0	7	1	1
135°	1	44	0	6	1	0
145°	1	31	0	4	1	0
155°	1	19	0	2	1	0
165°	1	9	0	1	1	0
175°	1	0	0	0	1	0
180°	0	0	0	0	0	



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CATALOG NUMBER: 2MB-SC3-ASML-UNV-CC93-HI-4000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	981.8	981.8	981.8	981.8	981.8	981.8	981.8	981.8	981.8	981.8	981.8
2.5°	980.8	988.2	988.9	1012.0	1005.2	1013.9	1003.0	1004.9	995.3	992.7	959.3
5°	984.3	1000.1	1004.3	1044.1	1037.7	1042.2	1027.1	1016.2	993.7	980.2	926.2
7.5°	967.6	1009.1	1032.2	1060.5	1071.1	1074.7	1044.1	1023.9	986.6	953.5	890.2
10°	958.3	1015.5	1038.0	1080.5	1089.8	1083.0	1059.3	1025.8	977.0	923.6	845.8
12.5°	953.2	1019.1	1058.3	1101.7	1102.0	1094.9	1067.0	1031.0	961.2	891.4	798.9
15°	929.4	1018.4	1058.6	1102.7	1107.5	1103.0	1074.4	1027.4	945.1	851.6	744.9
17.5°	926.8	1016.8	1068.9	1115.2	1107.2	1103.9	1078.9	1025.8	925.8	811.1	694.1
20°	899.8	1013.3	1068.9	1101.0	1098.5	1099.8	1081.8	1023.6	903.7	767.4	638.4
22.5°	871.2	1009.1	1064.4	1088.8	1073.4	1096.9	1068.9	1017.5	881.2	721.7	583.2
25°	837.4	1002.4	1055.7	1071.5	1051.9	1070.2	1069.9	1008.1	849.0	672.5	539.4
27.5°	810.1	991.7	1041.6	1065.4	1031.9	1047.7	1056.7	996.9	811.1	624.0	488.0
30°	769.3	978.2	1024.5	1028.1	1001.7	1021.6	1031.9	982.7	779.2	569.0	441.1
32.5°	738.1	962.8	1003.6	998.8	972.5	998.8	1015.5	968.6	741.3	520.8	407.9
35°	694.4	944.2	977.6	952.2	934.8	956.7	976.3	953.5	696.3	469.4	365.5
37.5°	651.9	927.8	946.4	914.9	891.1	915.6	958.6	925.2	651.0	428.5	334.0
40°	600.2	890.2	905.6	862.8	839.0	875.0	914.6	900.8	599.9	386.1	303.5
42.5°	561.0	862.2	866.7	808.2	779.9	818.1	863.2	866.0	558.4	347.8	276.5
45°	509.2	823.0	814.6	750.3	720.7	755.1	822.6	830.4	511.8	314.7	250.1
47.5°	462.6	779.2	762.9	687.6	654.5	695.3	770.2	790.5	459.7	284.2	225.4
50°	414.1	730.4	694.1	629.1	606.9	627.2	703.7	737.1	412.1	254.0	206.4
52.5°	369.7	676.4	631.4	573.2	551.0	567.7	633.9	684.1	364.9	228.6	189.7
55°	327.9	622.4	564.2	512.7	508.2	513.4	563.2	620.8	325.7	206.1	179.1
57.5°	290.6	556.8	503.7	465.8	457.8	462.0	496.4	555.5	287.7	183.6	163.6
60°	253.0	489.6	444.0	414.7	410.2	413.4	435.6	491.9	250.7	164.6	149.2
62.5°	218.9	422.1	381.6	370.7	367.4	367.4	376.8	428.2	216.0	145.3	138.2
65°	189.7	364.2	333.7	329.5	330.5	330.2	324.4	357.5	185.2	128.3	128.6
67.5°	160.1	302.8	285.8	290.9	294.8	293.2	281.0	297.4	156.2	112.8	119.9
70°	132.8	250.1	246.9	258.5	267.5	259.1	241.4	243.0	128.3	97.7	108.7
72.5°	107.1	202.2	217.0	233.1	241.7	232.4	208.0	200.9	103.2	83.9	98.4
75°	84.2	162.7	186.1	209.9	221.2	209.3	181.0	156.9	82.0	70.7	90.0
77.5°	64.3	128.9	159.1	186.8	197.7	187.4	157.5	122.5	60.1	59.5	81.0
80°	46.0	101.9	141.1	167.8	177.8	167.8	136.6	96.8	41.8	47.6	71.4
82.5°	30.2	78.8	122.8	152.7	163.6	151.4	118.6	74.6	26.7	38.6	64.3
85°	18.3	62.4	107.1	137.3	149.8	137.9	103.8	56.6	14.8	29.6	55.9
87.5°	8.0	48.2	95.5	126.7	137.9	127.0	92.6	44.4	6.1	23.1	47.9
90°	0.6	38.3	84.2	116.7	126.7	116.4	82.0	36.0	0.0	16.7	41.1
92.5°	0.6	32.8	77.2	108.0	119.3	107.7	73.9	29.6	0.0	12.2	34.7
95°	1.0	27.6	70.1	101.3	110.3	100.3	67.5	25.4	0.0	8.4	29.3
97.5°	1.0	25.1	64.3	94.5	104.5	93.9	61.7	22.8	0.0	6.1	23.8
100°	0.6	23.1	59.8	88.1	97.4	87.4	57.2	20.6	0.0	3.9	19.3
102.5°	0.6	21.5	55.9	82.6	90.0	81.7	53.4	19.3	0.0	3.2	15.8
105°	0.6	20.6	52.4	76.2	84.9	76.2	50.1	18.0	0.0	2.6	12.2
107.5°	0.6	19.3	49.8	72.7	79.7	72.0	47.6	17.0	0.0	2.6	10.0
110°	0.6	18.3	47.6	67.5	75.5	68.2	45.3	15.4	0.0	1.6	8.0



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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°	0.6	16.7	45.3	64.0	71.7	64.3	43.4	14.1	0.0	1.6	7.1
115°	0.6	15.1	43.4	61.7	67.5	61.1	41.5	12.5	0.0	1.3	6.4
117.5°	0.6	14.1	42.1	58.8	64.6	58.2	39.9	11.9	0.0	1.3	6.1
120°	0.6	13.5	40.2	55.9	60.4	55.3	37.9	11.3	0.0	1.3	5.8
122.5°	0.6	12.9	38.6	53.4	58.2	53.0	36.3	10.9	0.0	1.0	5.1
125°	0.6	12.2	36.3	50.5	55.0	49.8	33.4	10.6	0.0	0.6	4.5
127.5°	0.6	11.6	34.1	48.2	52.4	47.6	31.5	10.3	0.0	0.6	4.2
130°	0.6	11.3	31.2	45.3	49.5	44.7	29.3	10.3	0.0	0.6	3.9
132.5°	0.6	10.9	28.0	42.4	46.9	41.8	27.0	10.0	0.0	0.6	3.2
135°	0.6	10.6	24.8	39.5	43.7	38.9	25.1	9.6	0.0	0.6	2.9
137.5°	0.6	10.0	21.9	36.3	40.5	35.7	23.8	9.0	0.0	0.6	2.6
140°	0.6	9.3	19.6	33.8	37.3	32.8	21.9	8.4	0.0	0.3	1.9
142.5°	0.6	8.4	17.7	30.5	34.1	29.9	19.6	7.1	0.0	0.3	1.9
145°	0.6	7.4	16.1	26.7	30.9	26.7	18.3	6.4	0.0	0.3	1.6
147.5°	0.6	6.8	14.5	22.5	28.0	24.4	16.4	5.5	0.0	0.3	1.3
150°	0.6	6.1	12.5	19.0	24.8	21.5	15.1	4.8	0.0	0.0	1.0
152.5°	0.6	5.5	10.9	15.8	22.2	19.6	13.5	4.2	0.0	0.0	0.6
155°	1.0	5.1	9.3	13.8	19.3	17.0	11.3	3.5	0.0	0.0	0.6
157.5°	1.0	4.5	7.7	11.3	17.0	14.8	9.0	2.9	0.0	0.0	0.3
160°	1.0	4.2	6.4	8.7	14.1	12.2	7.4	2.3	0.0	0.0	0.3
162.5°	1.0	3.9	5.5	6.4	11.6	9.6	5.8	1.6	0.0	0.0	0.3
165°	1.0	3.2	4.8	4.5	9.0	7.4	4.5	1.0	0.0	0.0	0.0
167.5°	1.0	2.9	3.9	3.2	6.8	5.5	3.2	0.6	0.0	0.0	0.0
170°	1.0	2.3	3.2	2.3	1.9	3.5	1.9	0.3	0.0	0.0	0.0
172.5°	1.0	1.9	2.6	1.6	0.6	1.9	1.0	0.0	0.0	0.0	0.0
175°	1.0	1.6	1.6	1.0	0.3	0.6	0.0	0.0	0.0	0.0	0.0
177.5°	1.0	1.3	1.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3



TEST NUMBER: P892967

CATALOG NUMBER: 2MB-SC3-ASML-UNV-CC93-HI-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	981.8	981.8	981.8	981.8	981.8	981.8
2.5°	954.8	944.2	934.5	944.8	952.2	980.8
5°	908.2	896.9	898.2	907.5	932.3	984.3
7.5°	859.9	841.3	845.8	871.8	908.5	967.6
10°	803.0	786.0	790.2	829.4	880.8	958.3
12.5°	752.2	723.6	748.1	785.0	848.7	953.2
15°	692.8	670.3	683.5	738.1	817.8	929.4
17.5°	628.5	611.1	626.9	681.2	779.9	926.8
20°	579.0	554.9	573.5	633.3	733.0	899.8
22.5°	523.4	505.0	524.6	579.6	685.1	871.2
25°	477.7	458.4	478.0	532.7	642.6	837.4
27.5°	433.3	415.7	433.3	483.5	600.5	810.1
30°	394.4	377.4	395.4	443.6	551.3	769.3
32.5°	358.1	336.3	359.4	406.0	507.9	738.1
35°	320.5	304.1	321.5	373.2	459.7	694.4
37.5°	289.3	272.3	292.9	337.2	418.9	651.9
40°	259.7	244.6	261.0	308.3	384.2	600.2
42.5°	236.6	221.5	238.2	281.9	349.1	561.0
45°	214.1	202.8	216.4	253.0	313.8	509.2
47.5°	197.7	188.1	199.3	231.8	284.2	462.6
50°	183.6	176.8	184.8	210.6	253.6	414.1
52.5°	171.0	164.3	173.6	194.2	229.5	369.7
55°	161.4	155.3	162.3	178.7	205.4	327.9
57.5°	150.8	146.9	152.4	162.3	186.5	290.6
60°	143.1	138.9	144.7	152.7	164.9	253.0
62.5°	134.4	132.1	135.7	142.1	148.5	218.9
65°	126.7	123.4	127.9	130.2	129.6	189.7
67.5°	118.3	117.3	119.9	120.2	115.4	160.1
70°	109.6	109.0	112.2	110.3	100.3	132.8
72.5°	102.5	102.5	104.5	100.6	87.4	107.1
75°	94.8	95.5	97.1	92.6	73.6	84.2
77.5°	87.8	88.4	88.7	82.6	61.7	64.3
80°	79.7	79.4	82.6	74.9	50.1	46.0
82.5°	72.7	71.4	73.3	65.6	40.5	30.2
85°	64.6	64.9	66.2	57.2	32.5	18.3
87.5°	58.2	58.2	59.5	50.5	24.4	8.0
90°	50.5	49.8	51.8	42.8	18.3	0.6
92.5°	44.0	44.0	45.3	36.6	13.5	0.6
95°	37.6	37.9	38.9	30.2	10.3	1.0
97.5°	32.1	32.5	33.8	25.7	7.4	1.0
100°	27.3	27.6	28.3	20.6	5.8	0.6
102.5°	22.8	23.8	23.8	17.0	4.5	0.6
105°	19.3	20.6	19.9	13.8	4.2	0.6
107.5°	16.1	17.4	17.4	11.3	4.2	0.6
110°	13.2	15.1	14.8	9.6	3.2	0.6





TEST NUMBER: P892967

CATALOG NUMBER: 2MB-SC3-ASML-UNV-CC93-HI-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	11.3	12.9	11.9	8.4	3.2	0.6
115°	9.6	11.3	10.6	7.7	2.9	0.6
117.5°	8.7	9.6	9.6	7.4	2.9	0.6
120°	8.0	9.0	8.7	7.1	2.9	0.6
122.5°	7.4	8.0	8.0	6.4	2.6	0.6
125°	7.1	7.4	7.7	5.8	2.6	0.6
127.5°	6.8	7.4	7.4	5.5	2.3	0.6
130°	6.1	6.8	6.8	5.1	2.3	0.6
132.5°	5.5	6.1	6.1	4.8	2.3	0.6
135°	5.1	5.8	5.8	4.5	2.3	0.6
137.5°	4.8	5.1	5.1	4.2	2.3	0.6
140°	4.2	4.8	4.8	3.9	2.3	0.6
142.5°	3.9	4.5	4.5	3.5	1.9	0.6
145°	3.5	3.9	4.2	3.2	1.9	0.6
147.5°	2.9	3.5	3.9	2.9	1.9	0.6
150°	2.3	3.2	3.2	2.9	1.9	0.6
152.5°	1.6	2.9	2.9	2.6	1.6	0.6
155°	1.3	2.3	2.6	2.3	1.6	1.0
157.5°	1.0	1.9	2.3	2.3	1.6	1.0
160°	0.6	1.6	1.9	1.9	1.3	1.0
162.5°	0.3	1.3	1.6	1.9	1.3	1.0
165°	0.0	1.0	1.3	1.6	1.3	1.0
167.5°	0.0	0.6	1.0	1.3	1.0	1.0
170°	0.0	0.3	0.6	1.0	1.0	1.0
172.5°	0.0	0.0	0.3	0.6	0.6	1.0
175°	0.0	0.0	0.0	0.3	0.6	1.0
177.5°	0.0	0.0	0.0	0.3	0.6	1.0
180°	0.3	0.3	0.3	0.3	0.3	0.3



TEST NUMBER: P892967  
 CATALOG NUMBER: 2MB-SC3-ASML-UNV-CC93-HI-4000K

**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	19.31	20.77	19.77	21.20	21.66	21.48	22.94	21.93	23.37	23.82
	3H	20.13	21.45	20.60	21.90	22.39	23.14	24.46	23.61	24.91	25.40
	4H	20.34	21.58	20.83	22.04	22.56	23.96	25.20	24.44	25.66	26.17
	6H	20.43	21.58	20.93	22.06	22.59	24.79	25.94	25.29	26.42	26.94
	8H	20.43	21.53	20.95	22.03	22.57	25.23	26.33	25.74	26.82	27.36
	12H	20.42	21.47	20.94	21.97	22.53	25.71	26.77	26.23	27.26	27.82
4H	2H	19.74	20.98	20.23	21.44	21.95	21.85	23.09	22.34	23.55	24.06
	3H	20.83	21.88	21.34	22.38	22.92	23.70	24.74	24.20	25.25	25.78
	4H	21.17	22.12	21.69	22.64	23.21	24.65	25.59	25.17	26.11	26.68
	6H	21.37	22.20	21.91	22.74	23.32	25.64	26.47	26.19	27.02	27.60
	8H	21.39	22.17	21.94	22.72	23.31	26.17	26.95	26.72	27.49	28.09
	12H	21.40	22.10	21.97	22.68	23.28	26.77	27.47	27.34	28.05	28.65
8H	4H	21.49	22.27	22.04	22.81	23.41	24.79	25.57	25.34	26.11	26.71
	6H	21.81	22.47	22.39	23.05	23.65	25.92	26.57	26.50	27.16	27.76
	8H	21.90	22.49	22.50	23.09	23.70	26.57	27.15	27.16	27.75	28.37
	12H	21.96	22.48	22.55	23.07	23.75	27.33	27.85	27.92	28.44	29.12
12H	4H	21.56	22.27	22.13	22.84	23.44	24.78	25.49	25.35	26.06	26.66
	6H	21.94	22.53	22.54	23.13	23.75	25.93	26.52	26.53	27.12	27.74
	8H	22.10	22.62	22.69	23.21	23.89	26.64	27.16	27.23	27.75	28.43