

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: P894158

Luminaire Tested: 4MB-SC3-ASML-UNV-CC83-LOW-5000K

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894158
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: 4MB-SC3-ASML-UNV-CC83-LOW-5000K
Description: Selectable 4FT MICROBAY LINEAR BAY with ASYMMETRIC LENS, 80CRI, 5000K CCT, LOW lumen setting
Light Source: -
Ballast/Driver: -

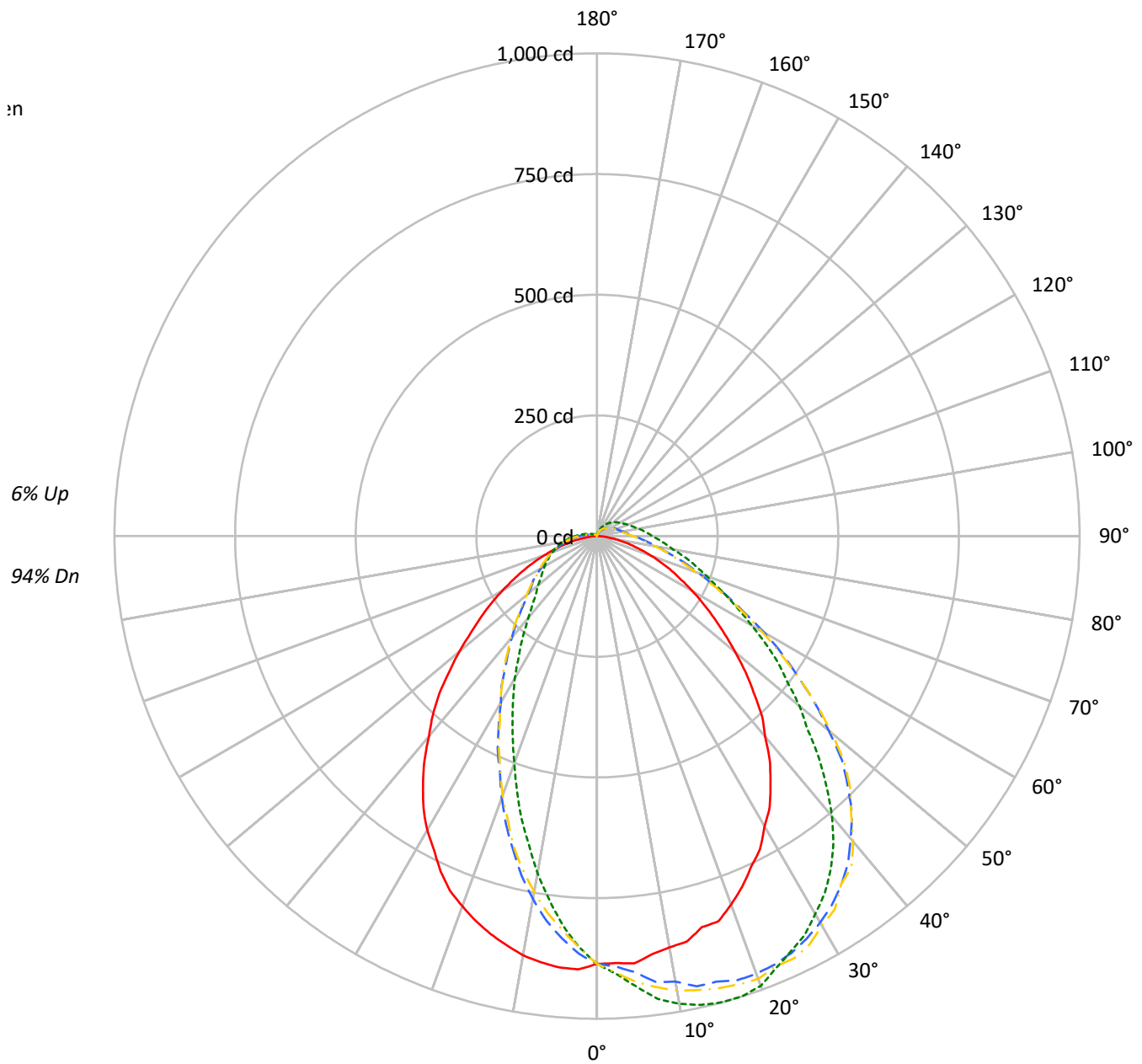
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2209.0 lumens
Efficiency: N/A
Efficacy: 132.3 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.07 / 1.25
Luminous Opening: Rectangular w/ Sides (W: 0.27' x L: 3.98' x H: 0.12')
CIE Type: Direct

Input Watts (W): 16.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9915
Total Harmonic Distortion (THDi): 6.67573310469889
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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CATALOG NUMBER: 4MB-SC3-ASML-UNV-CC83-LOW-5000K

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°	9026	9026	9026	9026
5°	9059	9198	9145	7950
10°	8897	9394	9070	6776
15°	8772	9361	8921	5665
20°	8704	9175	8742	4635
25°	8373	8750	8488	3813
30°	8022	8362	8126	3151
35°	7625	7892	7647	2567
40°	7018	7219	7014	2104
45°	6419	6372	6451	1793
50°	5709	5562	5681	1620
55°	5030	4872	4996	1489
60°	4412	4155	4373	1407
65°	3865	3578	3775	1336
70°	3287	3136	3174	1278
75°	2677	2851	2606	1231
80°	2066	2566	1877	1146
85°	1419	2477	1144	1073

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 157.5°
 Vertical Angle: 45°
 Luminance: 8929 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.3	3.8
10°-20°	231.5	10.5
20°-30°	332.9	15.1
30°-40°	377.8	17.1
40°-50°	361.1	16.3
50°-60°	293.4	13.3
60°-70°	204.7	9.3
70°-80°	126.8	5.7
80°-90°	72.7	3.3
90°-100°	43.5	2.0
100°-110°	28.6	1.3
110°-120°	20.0	0.9
120°-130°	14.5	0.7
130°-140°	9.6	0.4
140°-150°	5.4	0.2
150°-160°	2.4	0.1
160°-170°	0.7	0.0
170°-180°	0.1	0.0
0°-30°	647.7	29.3
0°-40°	1025.5	46.4
0°-60°	1679.9	76.0
0°-90°	2084.2	94.4
90°-120°	92.0	4.2
90°-150°	121.6	5.5
90°-180°	125.0	5.7
0°-180°	2209.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	886	886	886	886	886	
5°	889	937	897	810	889	84
15°	839	1000	853	605	839	238
25°	756	950	766	414	756	349
35°	627	844	629	274	627	391
45°	460	651	462	183	460	355
55°	296	459	294	140	296	266
65°	171	298	167	111	171	170
75°	76	200	74	86	76	82
85°	16	135	13	59	16	19
90°	1	114	0	45	1	1
95°	1	100	0	34	1	1
105°	1	77	0	19	1	1
115°	1	61	0	10	1	1
125°	1	50	0	7	1	1
135°	1	40	0	5	1	0
145°	1	28	0	4	1	0
155°	1	17	0	2	1	0
165°	1	8	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°	886.3	886.3	886.3	886.3	886.3	886.3	886.3	886.3	886.3	886.3	886.3
2.5°	885.4	892.1	892.7	913.6	907.5	915.3	905.4	907.2	898.5	896.2	866.0
5°	888.6	902.8	906.6	942.6	936.8	940.8	927.2	917.3	897.0	884.8	836.1
7.5°	873.5	911.0	931.9	957.4	967.0	970.2	942.6	924.3	890.6	860.8	803.6
10°	865.1	916.8	937.1	975.4	983.8	977.7	956.2	926.0	881.9	833.8	763.5
12.5°	860.5	920.0	955.4	994.5	994.8	988.4	963.2	930.7	867.7	804.7	721.2
15°	839.0	919.4	955.6	995.4	999.8	995.7	969.9	927.5	853.2	768.8	672.4
17.5°	836.7	917.9	964.9	1006.7	999.5	996.6	973.9	926.0	835.8	732.2	626.6
20°	812.3	914.7	964.9	994.0	991.6	992.8	976.5	924.0	815.8	692.7	576.3
22.5°	786.5	911.0	960.9	982.9	969.0	990.2	964.9	918.5	795.5	651.5	526.4
25°	756.0	904.9	953.0	967.3	949.6	966.1	965.8	910.1	766.4	607.1	487.0
27.5°	731.3	895.3	940.3	961.7	931.6	945.8	953.9	899.9	732.2	563.3	440.5
30°	694.5	883.1	924.9	928.1	904.3	922.3	931.6	887.2	703.5	513.7	398.2
32.5°	666.3	869.2	906.0	901.7	877.9	901.7	916.8	874.4	669.2	470.1	368.3
35°	626.8	852.3	882.5	859.6	843.9	863.7	881.4	860.8	628.6	423.7	330.0
37.5°	588.5	837.5	854.4	825.9	804.5	826.5	865.4	835.2	587.7	386.8	301.5
40°	541.8	803.6	817.5	778.9	757.4	789.9	825.6	813.2	541.5	348.5	274.0
42.5°	506.4	778.3	782.4	729.6	704.0	738.6	779.2	781.8	504.1	314.0	249.6
45°	459.7	742.9	735.4	677.3	650.6	681.7	742.6	749.6	462.0	284.1	225.8
47.5°	417.6	703.5	688.7	620.7	590.9	627.7	695.3	713.6	415.0	256.5	203.4
50°	373.8	659.3	626.6	567.9	547.9	566.2	635.3	665.4	372.0	229.3	186.3
52.5°	333.7	610.6	570.0	517.4	497.4	512.5	572.3	617.6	329.4	206.3	171.2
55°	296.0	561.8	509.3	462.9	458.8	463.5	508.4	560.4	294.0	186.0	161.6
57.5°	262.3	502.6	454.8	420.5	413.3	417.0	448.1	501.5	259.7	165.7	147.7
60°	228.4	442.0	400.8	374.4	370.3	373.2	393.2	444.0	226.4	148.6	134.7
62.5°	197.6	381.0	344.5	334.6	331.7	331.7	340.1	386.6	195.0	131.2	124.8
65°	171.2	328.8	301.2	297.5	298.3	298.0	292.8	322.7	167.2	115.8	116.1
67.5°	144.5	273.4	258.0	262.6	266.1	264.7	253.6	268.4	141.0	101.9	108.2
70°	119.9	225.8	222.9	233.3	241.5	233.9	217.9	219.4	115.8	88.2	98.1
72.5°	96.6	182.5	195.9	210.4	218.2	209.8	187.8	181.4	93.2	75.7	88.8
75°	76.0	146.8	168.0	189.5	199.7	188.9	163.4	141.6	74.0	63.8	81.3
77.5°	58.0	116.4	143.7	168.6	178.5	169.2	142.2	110.6	54.3	53.7	73.1
80°	41.5	92.0	127.4	151.5	160.5	151.5	123.3	87.4	37.7	43.0	64.4
82.5°	27.3	71.1	110.9	137.8	147.7	136.7	107.1	67.3	24.1	34.8	58.0
85°	16.5	56.3	96.6	123.9	135.2	124.5	93.7	51.1	13.3	26.7	50.5
87.5°	7.3	43.5	86.2	114.3	124.5	114.6	83.6	40.0	5.5	20.9	43.2
90°	0.6	34.5	76.0	105.3	114.3	105.1	74.0	32.5	0.0	15.1	37.1
92.5°	0.6	29.6	69.6	97.5	107.7	97.2	66.7	26.7	0.0	11.0	31.3
95°	0.9	25.0	63.3	91.4	99.5	90.5	60.9	22.9	0.0	7.5	26.4
97.5°	0.9	22.6	58.0	85.3	94.3	84.7	55.7	20.6	0.0	5.5	21.5
100°	0.6	20.9	54.0	79.5	87.9	78.9	51.7	18.6	0.0	3.5	17.4
102.5°	0.6	19.4	50.5	74.6	81.3	73.7	48.2	17.4	0.0	2.9	14.2
105°	0.6	18.6	47.3	68.8	76.6	68.8	45.3	16.3	0.0	2.3	11.0
107.5°	0.6	17.4	45.0	65.6	72.0	65.0	43.0	15.4	0.0	2.3	9.0
110°	0.6	16.5	43.0	60.9	68.2	61.5	40.9	13.9	0.0	1.5	7.3



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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°	0.6	15.1	40.9	57.8	64.7	58.0	39.2	12.8	0.0	1.5	6.4
115°	0.6	13.6	39.2	55.7	60.9	55.1	37.4	11.3	0.0	1.2	5.8
117.5°	0.6	12.8	38.0	53.1	58.3	52.5	36.0	10.7	0.0	1.2	5.5
120°	0.6	12.2	36.3	50.5	54.6	49.9	34.2	10.2	0.0	1.2	5.2
122.5°	0.6	11.6	34.8	48.2	52.5	47.9	32.8	9.9	0.0	0.9	4.6
125°	0.6	11.0	32.8	45.6	49.6	45.0	30.2	9.6	0.0	0.6	4.1
127.5°	0.6	10.4	30.8	43.5	47.3	43.0	28.4	9.3	0.0	0.6	3.8
130°	0.6	10.2	28.1	40.9	44.7	40.3	26.4	9.3	0.0	0.6	3.5
132.5°	0.6	9.9	25.2	38.3	42.4	37.7	24.4	9.0	0.0	0.6	2.9
135°	0.6	9.6	22.3	35.7	39.5	35.1	22.6	8.7	0.0	0.6	2.6
137.5°	0.6	9.0	19.7	32.8	36.6	32.2	21.5	8.1	0.0	0.6	2.3
140°	0.6	8.4	17.7	30.5	33.7	29.6	19.7	7.5	0.0	0.3	1.7
142.5°	0.6	7.5	16.0	27.6	30.8	27.0	17.7	6.4	0.0	0.3	1.7
145°	0.6	6.7	14.5	24.1	27.9	24.1	16.5	5.8	0.0	0.3	1.5
147.5°	0.6	6.1	13.1	20.3	25.2	22.1	14.8	4.9	0.0	0.3	1.2
150°	0.6	5.5	11.3	17.1	22.3	19.4	13.6	4.4	0.0	0.0	0.9
152.5°	0.6	4.9	9.9	14.2	20.0	17.7	12.2	3.8	0.0	0.0	0.6
155°	0.9	4.6	8.4	12.5	17.4	15.4	10.2	3.2	0.0	0.0	0.6
157.5°	0.9	4.1	7.0	10.2	15.4	13.3	8.1	2.6	0.0	0.0	0.3
160°	0.9	3.8	5.8	7.8	12.8	11.0	6.7	2.0	0.0	0.0	0.3
162.5°	0.9	3.5	4.9	5.8	10.4	8.7	5.2	1.5	0.0	0.0	0.3
165°	0.9	2.9	4.4	4.1	8.1	6.7	4.1	0.9	0.0	0.0	0.0
167.5°	0.9	2.6	3.5	2.9	6.1	4.9	2.9	0.6	0.0	0.0	0.0
170°	0.9	2.0	2.9	2.0	1.7	3.2	1.7	0.3	0.0	0.0	0.0
172.5°	0.9	1.7	2.3	1.5	0.6	1.7	0.9	0.0	0.0	0.0	0.0
175°	0.9	1.5	1.5	0.9	0.3	0.6	0.0	0.0	0.0	0.0	0.0
177.5°	0.9	1.2	0.9	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



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CATALOG NUMBER: 4MB-SC3-ASML-UNV-CC83-LOW-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	886.3	886.3	886.3	886.3	886.3	886.3
2.5°	861.9	852.3	843.6	852.9	859.6	885.4
5°	819.8	809.7	810.8	819.3	841.6	888.6
7.5°	776.3	759.5	763.5	787.0	820.1	873.5
10°	724.9	709.6	713.3	748.7	795.2	865.1
12.5°	679.1	653.3	675.3	708.7	766.1	860.5
15°	625.4	605.1	617.0	666.3	738.3	839.0
17.5°	567.4	551.7	565.9	614.9	704.0	836.7
20°	522.7	500.9	517.7	571.7	661.7	812.3
22.5°	472.5	455.9	473.6	523.2	618.4	786.5
25°	431.2	413.8	431.5	480.9	580.1	756.0
27.5°	391.2	375.2	391.2	436.5	542.1	731.3
30°	356.1	340.7	357.0	400.5	497.7	694.5
32.5°	323.3	303.6	324.4	366.5	458.5	666.3
35°	289.3	274.5	290.2	336.9	415.0	626.8
37.5°	261.2	245.8	264.4	304.4	378.1	588.5
40°	234.5	220.8	235.6	278.3	346.8	541.8
42.5°	213.6	200.0	215.0	254.5	315.2	506.4
45°	193.3	183.1	195.3	228.4	283.2	459.7
47.5°	178.5	169.8	179.9	209.2	256.5	417.6
50°	165.7	159.6	166.9	190.1	229.0	373.8
52.5°	154.4	148.3	156.7	175.3	207.2	333.7
55°	145.7	140.2	146.6	161.4	185.4	296.0
57.5°	136.1	132.6	137.6	146.6	168.3	262.3
60°	129.1	125.4	130.6	137.8	148.9	228.4
62.5°	121.3	119.3	122.5	128.3	134.1	197.6
65°	114.3	111.4	115.5	117.5	117.0	171.2
67.5°	106.8	105.9	108.2	108.5	104.2	144.5
70°	99.0	98.4	101.3	99.5	90.5	119.9
72.5°	92.6	92.6	94.3	90.8	78.9	96.6
75°	85.6	86.2	87.6	83.6	66.5	76.0
77.5°	79.2	79.8	80.1	74.6	55.7	58.0
80°	72.0	71.7	74.6	67.6	45.3	41.5
82.5°	65.6	64.4	66.2	59.2	36.6	27.3
85°	58.3	58.6	59.8	51.7	29.3	16.5
87.5°	52.5	52.5	53.7	45.6	22.1	7.3
90°	45.6	45.0	46.7	38.6	16.5	0.6
92.5°	39.8	39.8	40.9	33.1	12.2	0.6
95°	34.0	34.2	35.1	27.3	9.3	0.9
97.5°	29.0	29.3	30.5	23.2	6.7	0.9
100°	24.7	25.0	25.5	18.6	5.2	0.6
102.5°	20.6	21.5	21.5	15.4	4.1	0.6
105°	17.4	18.6	18.0	12.5	3.8	0.6
107.5°	14.5	15.7	15.7	10.2	3.8	0.6
110°	11.9	13.6	13.3	8.7	2.9	0.6



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CATALOG NUMBER: 4MB-SC3-ASML-UNV-CC83-LOW-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	10.2	11.6	10.7	7.5	2.9	0.6
115°	8.7	10.2	9.6	7.0	2.6	0.6
117.5°	7.8	8.7	8.7	6.7	2.6	0.6
120°	7.3	8.1	7.8	6.4	2.6	0.6
122.5°	6.7	7.3	7.3	5.8	2.3	0.6
125°	6.4	6.7	7.0	5.2	2.3	0.6
127.5°	6.1	6.7	6.7	4.9	2.0	0.6
130°	5.5	6.1	6.1	4.6	2.0	0.6
132.5°	4.9	5.5	5.5	4.4	2.0	0.6
135°	4.6	5.2	5.2	4.1	2.0	0.6
137.5°	4.4	4.6	4.6	3.8	2.0	0.6
140°	3.8	4.4	4.4	3.5	2.0	0.6
142.5°	3.5	4.1	4.1	3.2	1.7	0.6
145°	3.2	3.5	3.8	2.9	1.7	0.6
147.5°	2.6	3.2	3.5	2.6	1.7	0.6
150°	2.0	2.9	2.9	2.6	1.7	0.6
152.5°	1.5	2.6	2.6	2.3	1.5	0.6
155°	1.2	2.0	2.3	2.0	1.5	0.9
157.5°	0.9	1.7	2.0	2.0	1.5	0.9
160°	0.6	1.5	1.7	1.7	1.2	0.9
162.5°	0.3	1.2	1.5	1.7	1.2	0.9
165°	0.0	0.9	1.2	1.5	1.2	0.9
167.5°	0.0	0.6	0.9	1.2	0.9	0.9
170°	0.0	0.3	0.6	0.9	0.9	0.9
172.5°	0.0	0.0	0.3	0.6	0.6	0.9
175°	0.0	0.0	0.0	0.3	0.6	0.9
177.5°	0.0	0.0	0.0	0.3	0.6	0.9
180°	0.3	0.3	0.3	0.3	0.3	0.3



TEST NUMBER: P894158
 CATALOG NUMBER: 4MB-SC3-ASML-UNV-CC83-LOW-5000K

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	16.56	18.02	17.02	18.45	18.91	18.82	20.28	19.27	20.71	21.17
	3H	17.38	18.70	17.85	19.14	19.64	20.52	21.84	20.99	22.28	22.78
	4H	17.59	18.83	18.07	19.29	19.80	21.36	22.60	21.85	23.06	23.58
	6H	17.68	18.83	18.18	19.30	19.83	22.23	23.39	22.74	23.86	24.39
	8H	17.68	18.78	18.19	19.28	19.81	22.71	23.81	23.22	24.31	24.84
	12H	17.67	18.72	18.19	19.21	19.77	23.25	24.30	23.77	24.79	25.36
4H	2H	17.00	18.24	17.49	18.70	19.21	19.19	20.43	19.67	20.89	21.40
	3H	18.09	19.14	18.60	19.64	20.18	21.07	22.11	21.57	22.62	23.15
	4H	18.43	19.38	18.95	19.90	20.47	22.04	22.99	22.56	23.51	24.08
	6H	18.62	19.46	19.17	20.00	20.58	23.08	23.91	23.63	24.46	25.04
	8H	18.65	19.43	19.20	19.98	20.57	23.65	24.43	24.19	24.97	25.56
	12H	18.66	19.36	19.23	19.93	20.53	24.30	25.00	24.87	25.58	26.18
8H	4H	18.76	19.54	19.31	20.09	20.68	22.18	22.96	22.73	23.51	24.10
	6H	19.08	19.74	19.66	20.32	20.93	23.36	24.01	23.94	24.60	25.20
	8H	19.17	19.76	19.77	20.36	20.98	24.03	24.62	24.63	25.22	25.84
	12H	19.23	19.75	19.82	20.34	21.02	24.85	25.37	25.44	25.96	26.64
12H	4H	18.84	19.54	19.41	20.12	20.72	22.18	22.88	22.74	23.45	24.05
	6H	19.22	19.81	19.82	20.41	21.02	23.37	23.96	23.96	24.56	25.17
	8H	19.38	19.90	19.97	20.49	21.17	24.10	24.63	24.70	25.21	25.90