

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: P892973

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892973
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-MID-4000K
Description: Selectable 2FT MICROBAY LINEAR BAY with ASYMMETRIC LENS, 90CRI, 4000K CCT, MID lumen setting
Light Source: -
Ballast/Driver: -

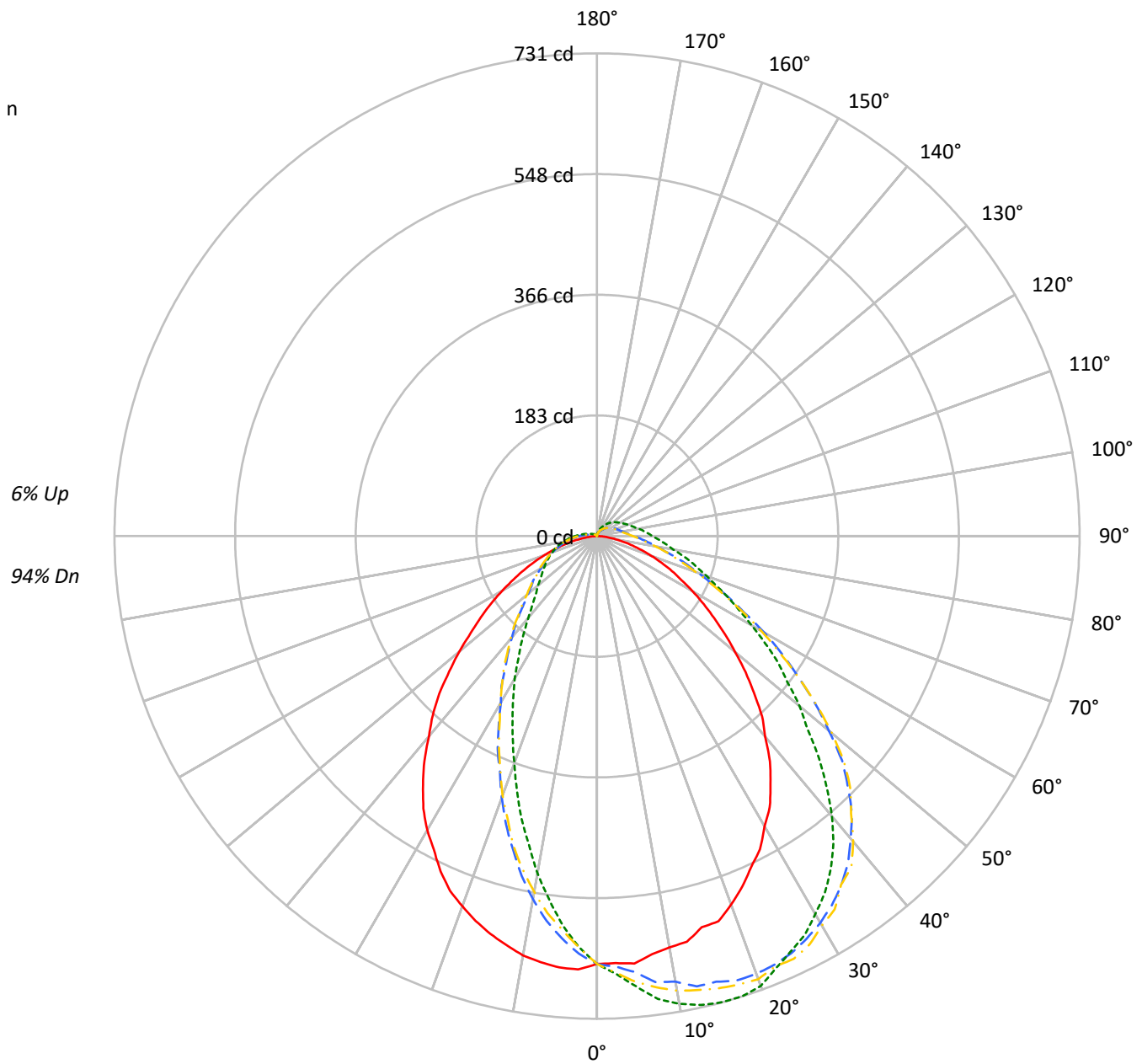
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1615.0 lumens
Efficiency: N/A
Efficacy: 116.2 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): 13.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9948
Total Harmonic Distortion (THDi): 5.65231997856897
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	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	85	83	81	79
2	98	90	83	78	95	88	82	76	83	78	74	79	75	71	75	72	69	75	72	69	66
3	90	80	72	65	87	78	70	64	74	68	63	70	65	61	67	63	59	67	63	59	57
4	83	71	63	56	80	69	61	55	66	59	54	63	57	53	60	55	51	60	55	51	49
5	76	64	55	49	74	62	54	48	60	53	47	57	51	46	55	49	45	55	49	45	43
6	71	58	49	43	68	56	48	42	54	47	42	52	46	41	50	44	40	50	44	40	38
7	66	53	44	38	64	51	43	38	49	42	37	48	41	36	46	40	36	46	40	36	34
8	61	48	40	34	59	47	39	34	45	38	33	44	37	33	42	37	32	42	37	32	30
9	57	44	36	31	56	43	36	31	42	35	30	40	34	30	39	33	29	39	33	29	28
10	54	41	33	28	52	40	33	28	39	32	28	38	31	27	36	31	27	36	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	13269	13269	13269	13269
5°	13281	13521	13406	11687
10°	13006	13810	13259	9961
15°	12787	13759	13004	8328
20°	12651	13488	12704	6813
25°	12130	12862	12297	5606
30°	11582	12292	11732	4631
35°	10971	11601	11002	3774
40°	10055	10613	10050	3095
45°	9155	9367	9201	2637
50°	8097	8176	8058	2382
55°	7086	7161	7037	2188
60°	6165	6108	6109	2069
65°	5342	5259	5214	1965
70°	4469	4608	4321	1877
75°	3560	4191	3464	1808
80°	2631	3770	2396	1684
85°	1651	3643	1337	1580

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 157.5°
 Vertical Angle: 45°
 Luminance: 12814 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.9	3.8
10°-20°	169.2	10.5
20°-30°	243.4	15.1
30°-40°	276.2	17.1
40°-50°	264.0	16.3
50°-60°	214.5	13.3
60°-70°	149.7	9.3
70°-80°	92.7	5.7
80°-90°	53.2	3.3
90°-100°	31.8	2.0
100°-110°	20.9	1.3
110°-120°	14.6	0.9
120°-130°	10.6	0.7
130°-140°	7.0	0.4
140°-150°	4.0	0.2
150°-160°	1.8	0.1
160°-170°	0.5	0.0
170°-180°	0.0	0.0
0°-30°	473.5	29.3
0°-40°	749.7	46.4
0°-60°	1228.2	76.1
0°-90°	1523.8	94.4
90°-120°	67.3	4.2
90°-150°	88.9	5.5
90°-180°	91.0	5.6
0°-180°	1615.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	648	648	648	648	648	
5°	650	685	656	592	650	61
15°	613	731	624	442	613	174
25°	553	694	560	303	553	255
35°	458	617	460	201	458	286
45°	336	476	338	134	336	259
55°	216	335	215	102	216	195
65°	125	218	122	82	125	124
75°	56	146	54	63	56	60
85°	12	99	10	43	12	14
90°	0	84	0	33	0	1
95°	1	73	0	25	1	0
105°	0	56	0	14	0	0
115°	0	45	0	7	0	0
125°	0	36	0	5	0	0
135°	0	29	0	4	0	0
145°	0	20	0	2	0	0
155°	1	13	0	2	1	0
165°	1	6	0	1	1	0
175°	1	0	0	0	1	0
180°	0	0	0	0	0	0



TEST NUMBER: P892973

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0
2.5°	647.3	652.2	652.6	667.9	663.5	669.2	662.0	663.2	656.9	655.2	633.1
5°	649.7	660.1	662.8	689.1	684.9	687.9	677.9	670.7	655.8	646.9	611.3
7.5°	638.6	666.0	681.3	699.9	706.9	709.3	689.1	675.8	651.1	629.3	587.5
10°	632.5	670.2	685.1	713.1	719.3	714.8	699.1	677.0	644.8	609.6	558.2
12.5°	629.1	672.6	698.5	727.1	727.3	722.6	704.2	680.4	634.4	588.3	527.2
15°	613.4	672.2	698.7	727.7	730.9	728.0	709.1	678.1	623.8	562.0	491.6
17.5°	611.7	671.1	705.5	736.0	730.7	728.6	712.0	677.0	611.0	535.3	458.1
20°	593.9	668.8	705.5	726.7	725.0	725.8	714.0	675.5	596.4	506.4	421.4
22.5°	575.0	666.0	702.5	718.6	708.4	723.9	705.5	671.5	581.6	476.3	384.9
25°	552.7	661.5	696.8	707.2	694.2	706.3	706.1	665.4	560.3	443.9	356.0
27.5°	534.7	654.5	687.4	703.1	681.1	691.5	697.4	657.9	535.3	411.8	322.1
30°	507.7	645.6	676.2	678.5	661.1	674.3	681.1	648.6	514.3	375.5	291.1
32.5°	487.1	635.4	662.4	659.2	641.8	659.2	670.2	639.3	489.3	343.7	269.2
35°	458.3	623.1	645.2	628.4	617.0	631.4	644.4	629.3	459.6	309.8	241.2
37.5°	430.3	612.3	624.6	603.8	588.1	604.3	632.7	610.6	429.6	282.8	220.4
40°	396.1	587.5	597.7	569.5	553.8	577.5	603.6	594.5	395.9	254.8	200.3
42.5°	370.2	569.0	572.0	533.4	514.7	540.0	569.7	571.6	368.5	229.6	182.5
45°	336.1	543.2	537.6	495.2	475.7	498.4	542.9	548.0	337.8	207.7	165.1
47.5°	305.3	514.3	503.5	453.8	432.0	458.9	508.4	521.7	303.4	187.6	148.7
50°	273.3	482.0	458.1	415.2	400.6	413.9	464.4	486.5	272.0	167.6	136.2
52.5°	244.0	446.4	416.7	378.3	363.7	374.7	418.4	451.5	240.8	150.9	125.2
55°	216.4	410.8	372.4	338.4	335.4	338.8	371.7	409.7	214.9	136.0	118.2
57.5°	191.8	367.5	332.5	307.4	302.1	304.9	327.6	366.6	189.9	121.1	108.0
60°	167.0	323.1	293.0	273.7	270.7	272.8	287.5	324.6	165.5	108.6	98.4
62.5°	144.5	278.6	251.8	244.6	242.5	242.5	248.7	282.6	142.6	95.9	91.2
65°	125.2	240.4	220.2	217.5	218.1	217.9	214.1	235.9	122.2	84.7	84.9
67.5°	105.7	199.9	188.6	192.0	194.6	193.5	185.4	196.3	103.1	74.5	79.1
70°	87.6	165.1	162.9	170.6	176.5	171.0	159.3	160.4	84.7	64.5	71.7
72.5°	70.7	133.5	143.2	153.8	159.6	153.4	137.3	132.6	68.1	55.4	64.9
75°	55.6	107.4	122.8	138.5	146.0	138.1	119.5	103.5	54.1	46.7	59.4
77.5°	42.4	85.1	105.0	123.3	130.5	123.7	104.0	80.8	39.7	39.3	53.5
80°	30.3	67.3	93.1	110.8	117.3	110.8	90.2	63.9	27.6	31.4	47.1
82.5°	19.9	52.0	81.0	100.8	108.0	99.9	78.3	49.2	17.6	25.5	42.4
85°	12.1	41.2	70.7	90.6	98.9	91.0	68.5	37.3	9.8	19.5	36.9
87.5°	5.3	31.8	63.0	83.6	91.0	83.8	61.1	29.3	4.0	15.3	31.6
90°	0.4	25.2	55.6	77.0	83.6	76.8	54.1	23.8	0.0	11.0	27.2
92.5°	0.4	21.6	50.9	71.3	78.7	71.1	48.8	19.5	0.0	8.1	22.9
95°	0.6	18.2	46.3	66.8	72.8	66.2	44.6	16.8	0.0	5.5	19.3
97.5°	0.6	16.5	42.4	62.4	69.0	62.0	40.7	15.1	0.0	4.0	15.7
100°	0.4	15.3	39.5	58.1	64.3	57.7	37.8	13.6	0.0	2.5	12.7
102.5°	0.4	14.2	36.9	54.5	59.4	53.9	35.2	12.7	0.0	2.1	10.4
105°	0.4	13.6	34.6	50.3	56.0	50.3	33.1	11.9	0.0	1.7	8.1
107.5°	0.4	12.7	32.9	48.0	52.6	47.5	31.4	11.2	0.0	1.7	6.6
110°	0.4	12.1	31.4	44.6	49.9	45.0	29.9	10.2	0.0	1.1	5.3



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

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	0.4	11.0	29.9	42.2	47.3	42.4	28.6	9.3	0.0	1.1	4.7
115°	0.4	10.0	28.6	40.7	44.6	40.3	27.4	8.3	0.0	0.8	4.2
117.5°	0.4	9.3	27.8	38.8	42.6	38.4	26.3	7.9	0.0	0.8	4.0
120°	0.4	8.9	26.5	36.9	39.9	36.5	25.0	7.4	0.0	0.8	3.8
122.5°	0.4	8.5	25.5	35.2	38.4	35.0	24.0	7.2	0.0	0.6	3.4
125°	0.4	8.1	24.0	33.3	36.3	32.9	22.1	7.0	0.0	0.4	3.0
127.5°	0.4	7.6	22.5	31.8	34.6	31.4	20.8	6.8	0.0	0.4	2.8
130°	0.4	7.4	20.6	29.9	32.7	29.5	19.3	6.8	0.0	0.4	2.5
132.5°	0.4	7.2	18.5	28.0	31.0	27.6	17.8	6.6	0.0	0.4	2.1
135°	0.4	7.0	16.3	26.1	28.9	25.7	16.5	6.4	0.0	0.4	1.9
137.5°	0.4	6.6	14.4	24.0	26.7	23.6	15.7	5.9	0.0	0.4	1.7
140°	0.4	6.2	12.9	22.3	24.6	21.6	14.4	5.5	0.0	0.2	1.3
142.5°	0.4	5.5	11.7	20.2	22.5	19.7	12.9	4.7	0.0	0.2	1.3
145°	0.4	4.9	10.6	17.6	20.4	17.6	12.1	4.2	0.0	0.2	1.1
147.5°	0.4	4.5	9.5	14.9	18.5	16.1	10.8	3.6	0.0	0.2	0.8
150°	0.4	4.0	8.3	12.5	16.3	14.2	10.0	3.2	0.0	0.0	0.6
152.5°	0.4	3.6	7.2	10.4	14.6	12.9	8.9	2.8	0.0	0.0	0.4
155°	0.6	3.4	6.2	9.1	12.7	11.2	7.4	2.3	0.0	0.0	0.4
157.5°	0.6	3.0	5.1	7.4	11.2	9.8	5.9	1.9	0.0	0.0	0.2
160°	0.6	2.8	4.2	5.7	9.3	8.1	4.9	1.5	0.0	0.0	0.2
162.5°	0.6	2.5	3.6	4.2	7.6	6.4	3.8	1.1	0.0	0.0	0.2
165°	0.6	2.1	3.2	3.0	5.9	4.9	3.0	0.6	0.0	0.0	0.0
167.5°	0.6	1.9	2.5	2.1	4.5	3.6	2.1	0.4	0.0	0.0	0.0
170°	0.6	1.5	2.1	1.5	1.3	2.3	1.3	0.2	0.0	0.0	0.0
172.5°	0.6	1.3	1.7	1.1	0.4	1.3	0.6	0.0	0.0	0.0	0.0
175°	0.6	1.1	1.1	0.6	0.2	0.4	0.0	0.0	0.0	0.0	0.0
177.5°	0.6	0.8	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2



TEST NUMBER: P892973

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

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	648.0	648.0	648.0	648.0	648.0	648.0
2.5°	630.1	623.1	616.8	623.6	628.4	647.3
5°	599.4	592.0	592.8	599.0	615.3	649.7
7.5°	567.6	555.2	558.2	575.4	599.6	638.6
10°	530.0	518.8	521.5	547.4	581.3	632.5
12.5°	496.5	477.6	493.7	518.1	560.1	629.1
15°	457.2	442.4	451.1	487.1	539.8	613.4
17.5°	414.8	403.3	413.7	449.6	514.7	611.7
20°	382.1	366.2	378.5	418.0	483.7	593.9
22.5°	345.4	333.3	346.3	382.5	452.1	575.0
25°	315.3	302.6	315.5	351.6	424.1	552.7
27.5°	286.0	274.3	286.0	319.1	396.3	534.7
30°	260.3	249.1	261.0	292.8	363.9	507.7
32.5°	236.4	221.9	237.2	268.0	335.2	487.1
35°	211.5	200.7	212.2	246.3	303.4	458.3
37.5°	191.0	179.7	193.3	222.6	276.5	430.3
40°	171.4	161.5	172.3	203.5	253.5	396.1
42.5°	156.2	146.2	157.2	186.1	230.4	370.2
45°	141.3	133.9	142.8	167.0	207.1	336.1
47.5°	130.5	124.1	131.5	153.0	187.6	305.3
50°	121.1	116.7	122.0	139.0	167.4	273.3
52.5°	112.9	108.4	114.6	128.2	151.5	244.0
55°	106.5	102.5	107.1	118.0	135.6	216.4
57.5°	99.5	97.0	100.6	107.1	123.1	191.8
60°	94.4	91.7	95.5	100.8	108.8	167.0
62.5°	88.7	87.2	89.5	93.8	98.0	144.5
65°	83.6	81.5	84.4	85.9	85.5	125.2
67.5°	78.1	77.4	79.1	79.4	76.2	105.7
70°	72.3	71.9	74.0	72.8	66.2	87.6
72.5°	67.7	67.7	69.0	66.4	57.7	70.7
75°	62.6	63.0	64.1	61.1	48.6	55.6
77.5°	57.9	58.3	58.6	54.5	40.7	42.4
80°	52.6	52.4	54.5	49.4	33.1	30.3
82.5°	48.0	47.1	48.4	43.3	26.7	19.9
85°	42.6	42.9	43.7	37.8	21.4	12.1
87.5°	38.4	38.4	39.3	33.3	16.1	5.3
90°	33.3	32.9	34.2	28.2	12.1	0.4
92.5°	29.1	29.1	29.9	24.2	8.9	0.4
95°	24.8	25.0	25.7	19.9	6.8	0.6
97.5°	21.2	21.4	22.3	17.0	4.9	0.6
100°	18.0	18.2	18.7	13.6	3.8	0.4
102.5°	15.1	15.7	15.7	11.2	3.0	0.4
105°	12.7	13.6	13.2	9.1	2.8	0.4
107.5°	10.6	11.5	11.5	7.4	2.8	0.4
110°	8.7	10.0	9.8	6.4	2.1	0.4



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

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	7.4	8.5	7.9	5.5	2.1	0.4
115°	6.4	7.4	7.0	5.1	1.9	0.4
117.5°	5.7	6.4	6.4	4.9	1.9	0.4
120°	5.3	5.9	5.7	4.7	1.9	0.4
122.5°	4.9	5.3	5.3	4.2	1.7	0.4
125°	4.7	4.9	5.1	3.8	1.7	0.4
127.5°	4.5	4.9	4.9	3.6	1.5	0.4
130°	4.0	4.5	4.5	3.4	1.5	0.4
132.5°	3.6	4.0	4.0	3.2	1.5	0.4
135°	3.4	3.8	3.8	3.0	1.5	0.4
137.5°	3.2	3.4	3.4	2.8	1.5	0.4
140°	2.8	3.2	3.2	2.5	1.5	0.4
142.5°	2.5	3.0	3.0	2.3	1.3	0.4
145°	2.3	2.5	2.8	2.1	1.3	0.4
147.5°	1.9	2.3	2.5	1.9	1.3	0.4
150°	1.5	2.1	2.1	1.9	1.3	0.4
152.5°	1.1	1.9	1.9	1.7	1.1	0.4
155°	0.8	1.5	1.7	1.5	1.1	0.6
157.5°	0.6	1.3	1.5	1.5	1.1	0.6
160°	0.4	1.1	1.3	1.3	0.8	0.6
162.5°	0.2	0.8	1.1	1.3	0.8	0.6
165°	0.0	0.6	0.8	1.1	0.8	0.6
167.5°	0.0	0.4	0.6	0.8	0.6	0.6
170°	0.0	0.2	0.4	0.6	0.6	0.6
172.5°	0.0	0.0	0.2	0.4	0.4	0.6
175°	0.0	0.0	0.0	0.2	0.4	0.6
177.5°	0.0	0.0	0.0	0.2	0.4	0.6
180°	0.2	0.2	0.2	0.2	0.2	0.2



TEST NUMBER: P892973
 CATALOG NUMBER: 2MB-SC3-ASML-UNV-CC93-MID-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	17.87	19.33	18.32	19.76	20.21	20.03	21.49	20.49	21.92	22.38
	3H	18.69	20.01	19.16	20.45	20.95	21.70	23.02	22.17	23.46	23.96
	4H	18.90	20.14	19.38	20.60	21.11	22.51	23.76	23.00	24.22	24.73
	6H	18.99	20.14	19.49	20.62	21.14	23.34	24.50	23.85	24.97	25.50
	8H	18.99	20.09	19.50	20.59	21.12	23.78	24.88	24.30	25.38	25.91
	12H	18.98	20.03	19.50	20.52	21.09	24.27	25.32	24.79	25.82	26.38
4H	2H	18.29	19.54	18.78	20.00	20.51	20.40	21.65	20.89	22.11	22.62
	3H	19.39	20.43	19.89	20.94	21.48	22.26	23.30	22.76	23.81	24.34
	4H	19.73	20.68	20.25	21.20	21.76	23.20	24.15	23.72	24.67	25.24
	6H	19.92	20.75	20.47	21.30	21.88	24.20	25.03	24.74	25.57	26.16
	8H	19.95	20.73	20.50	21.27	21.87	24.73	25.51	25.28	26.05	26.65
	12H	19.96	20.66	20.53	21.23	21.83	25.33	26.03	25.90	26.60	27.20
8H	4H	20.05	20.83	20.60	21.37	21.97	23.35	24.13	23.90	24.67	25.26
	6H	20.37	21.02	20.95	21.61	22.21	24.48	25.13	25.06	25.72	26.32
	8H	20.46	21.05	21.05	21.65	22.26	25.12	25.71	25.72	26.31	26.92
	12H	20.51	21.04	21.11	21.62	22.31	25.88	26.41	26.48	26.99	27.68
12H	4H	20.12	20.82	20.69	21.40	22.00	23.34	24.04	23.91	24.62	25.21
	6H	20.50	21.09	21.09	21.69	22.30	24.49	25.08	25.09	25.68	26.29
	8H	20.66	21.18	21.25	21.77	22.45	25.19	25.72	25.79	26.30	26.99