

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: P892503

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

Issue Date: 11/11/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P892503  
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-2SL-ASML-UNV-L840  
Description: 2000 Lumen 2FT MICROBAY LINEAR BAY with ASYMMETRIC LENS, 80CRI, 4000K CCT  
Light Source: -  
Ballast/Driver: -

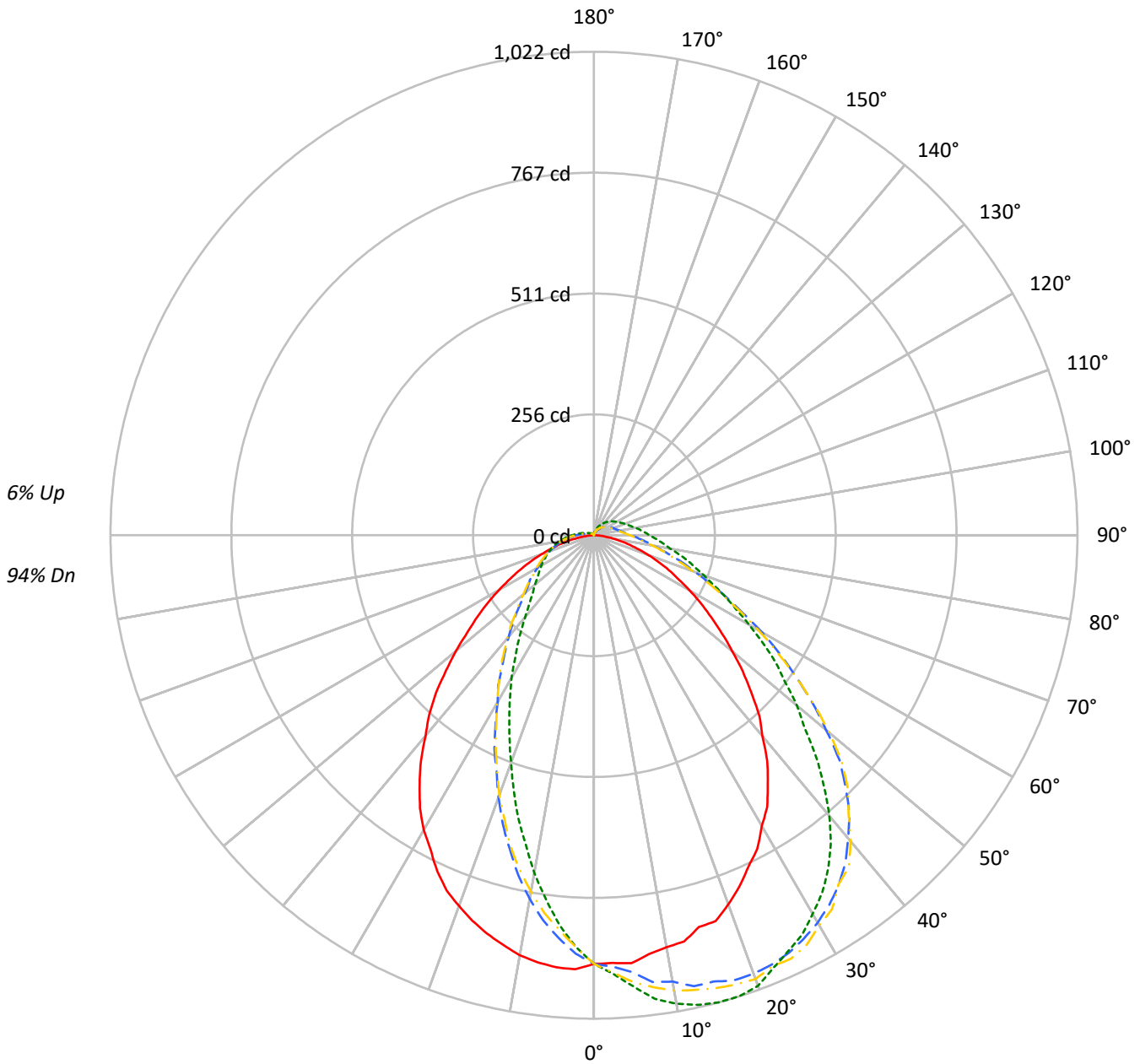
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2258.0 lumens  
Efficiency: N/A  
Efficacy: 151.5 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): 14.9  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.996  
Total Harmonic Distortion (THDi): 5.92  
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	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°	18550	18550	18550	18550
5°	18567	18905	18743	16338
10°	18184	19307	18538	13925
15°	17878	19237	18180	11643
20°	17686	18857	17763	9525
25°	16961	17983	17193	7837
30°	16194	17185	16404	6476
35°	15337	16218	15380	5276
40°	14058	14836	14050	4325
45°	12799	13097	12864	3686
50°	11320	11431	11267	3331
55°	9909	10013	9840	3060
60°	8620	8540	8542	2890
65°	7468	7353	7293	2747
70°	6249	6444	6040	2627
75°	4975	5858	4840	2529
80°	3681	5271	3351	2356
85°	2306	5090	1856	2206

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 157.5°  
 Vertical Angle: 45°  
 Luminance: 17916 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	85.1	3.8
10°-20°	236.6	10.5
20°-30°	340.3	15.1
30°-40°	386.2	17.1
40°-50°	369.1	16.3
50°-60°	299.9	13.3
60°-70°	209.3	9.3
70°-80°	129.6	5.7
80°-90°	74.4	3.3
90°-100°	44.5	2.0
100°-110°	29.2	1.3
110°-120°	20.5	0.9
120°-130°	14.8	0.7
130°-140°	9.8	0.4
140°-150°	5.6	0.2
150°-160°	2.5	0.1
160°-170°	0.7	0.0
170°-180°	0.1	0.0
0°-30°	662.0	29.3
0°-40°	1048.2	46.4
0°-60°	1717.2	76.0
0°-90°	2130.5	94.4
90°-120°	94.1	4.2
90°-150°	124.3	5.5
90°-180°	128.0	5.7
0°-180°	2258.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	906	906	906	906	906	
5°	908	958	917	828	908	86
15°	858	1022	872	618	858	244
25°	773	971	783	423	773	356
35°	641	863	642	281	641	399
45°	470	665	472	187	470	363
55°	303	469	300	143	303	272
65°	175	305	171	114	175	174
75°	78	204	76	88	78	84
85°	17	138	14	60	17	19
90°	1	117	0	46	1	1
95°	1	102	0	35	1	1
105°	1	78	0	19	1	1
115°	1	62	0	10	1	1
125°	1	51	0	7	1	1
135°	1	40	0	5	1	0
145°	1	28	0	4	1	0
155°	1	18	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°	905.9	905.9	905.9	905.9	905.9	905.9	905.9	905.9	905.9	905.9	905.9
2.5°	905.1	911.9	912.5	933.8	927.6	935.6	925.5	927.3	918.4	916.0	885.2
5°	908.3	922.9	926.7	963.5	957.6	961.7	947.8	937.7	916.9	904.5	854.6
7.5°	892.9	931.2	952.5	978.6	988.4	991.7	963.5	944.8	910.4	879.8	821.4
10°	884.3	937.1	957.9	997.0	1005.6	999.4	977.4	946.6	901.5	852.3	780.5
12.5°	879.5	940.4	976.5	1016.6	1016.9	1010.4	984.6	951.3	887.0	822.6	737.2
15°	857.6	939.8	976.8	1017.5	1021.9	1017.8	991.4	948.1	872.1	785.8	687.3
17.5°	855.2	938.3	986.3	1029.1	1021.6	1018.7	995.5	946.6	854.3	748.4	640.5
20°	830.3	935.0	986.3	1016.0	1013.6	1014.8	998.2	944.5	833.9	708.1	589.1
22.5°	803.9	931.2	982.2	1004.7	990.5	1012.1	986.3	938.9	813.1	666.0	538.1
25°	772.8	924.9	974.2	988.7	970.6	987.5	987.2	930.3	783.4	620.6	497.8
27.5°	747.5	915.1	961.1	983.1	952.2	966.8	975.1	919.9	748.4	575.8	450.3
30°	709.9	902.7	945.4	948.7	924.3	942.7	952.2	906.8	719.1	525.1	407.0
32.5°	681.1	888.4	926.1	921.7	897.3	921.7	937.1	893.8	684.1	480.6	376.4
35°	640.7	871.2	902.1	878.7	862.6	882.8	900.9	879.8	642.5	433.1	337.3
37.5°	601.6	856.1	873.3	844.2	822.3	844.8	884.6	853.7	600.7	395.4	308.2
40°	553.8	821.4	835.6	796.2	774.2	807.5	843.9	831.2	553.5	356.3	280.0
42.5°	517.6	795.6	799.7	745.8	719.7	755.0	796.5	799.2	515.3	321.0	255.1
45°	469.9	759.4	751.7	692.4	665.1	696.8	759.1	766.2	472.3	290.4	230.8
47.5°	426.9	719.1	703.9	634.5	604.0	641.6	710.8	729.4	424.2	262.2	207.9
50°	382.1	674.0	640.5	580.5	560.1	578.8	649.4	680.2	380.3	234.3	190.4
52.5°	341.1	624.1	582.6	528.9	508.4	523.9	585.0	631.3	336.7	210.9	175.0
55°	302.6	574.3	520.6	473.1	469.0	473.7	519.7	572.8	300.5	190.1	165.2
57.5°	268.2	513.8	464.8	429.8	422.4	426.3	458.0	512.6	265.5	169.4	151.0
60°	233.5	451.8	409.7	382.7	378.5	381.5	402.0	453.9	231.4	151.9	137.6
62.5°	202.0	389.5	352.1	342.0	339.1	339.1	347.7	395.1	199.3	134.1	127.6
65°	175.0	336.1	307.9	304.1	304.9	304.7	299.3	329.9	170.9	118.4	118.7
67.5°	147.7	279.4	263.7	268.5	272.0	270.5	259.3	274.4	144.2	104.1	110.6
70°	122.5	230.8	227.8	238.5	246.8	239.1	222.8	224.3	118.4	90.2	100.3
72.5°	98.8	186.6	200.2	215.1	223.1	214.5	191.9	185.4	95.2	77.4	90.8
75°	77.7	150.1	171.8	193.7	204.1	193.1	167.0	144.8	75.6	65.3	83.1
77.5°	59.3	119.0	146.8	172.3	182.4	172.9	145.4	113.0	55.5	54.9	74.8
80°	42.4	94.0	130.2	154.8	164.0	154.8	126.1	89.3	38.6	43.9	65.9
82.5°	27.9	72.7	113.3	140.9	151.0	139.7	109.5	68.8	24.6	35.6	59.3
85°	16.9	57.5	98.8	126.7	138.2	127.3	95.8	52.2	13.6	27.3	51.6
87.5°	7.4	44.5	88.1	116.9	127.3	117.2	85.4	40.9	5.6	21.4	44.2
90°	0.6	35.3	77.7	107.7	116.9	107.4	75.6	33.2	0.0	15.4	38.0
92.5°	0.6	30.3	71.2	99.7	110.1	99.4	68.2	27.3	0.0	11.3	32.0
95°	0.9	25.5	64.7	93.4	101.7	92.6	62.3	23.4	0.0	7.7	27.0
97.5°	0.9	23.1	59.3	87.2	96.4	86.6	57.0	21.1	0.0	5.6	22.0
100°	0.6	21.4	55.2	81.3	89.9	80.7	52.8	19.0	0.0	3.6	17.8
102.5°	0.6	19.9	51.6	76.2	83.1	75.3	49.2	17.8	0.0	3.0	14.5
105°	0.6	19.0	48.4	70.3	78.3	70.3	46.3	16.6	0.0	2.4	11.3
107.5°	0.6	17.8	46.0	67.0	73.6	66.4	43.9	15.7	0.0	2.4	9.2
110°	0.6	16.9	43.9	62.3	69.7	62.9	41.8	14.2	0.0	1.5	7.4



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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	15.4	41.8	59.0	66.2	59.3	40.0	13.1	0.0	1.5	6.5
115°	0.6	13.9	40.0	57.0	62.3	56.4	38.3	11.6	0.0	1.2	5.9
117.5°	0.6	13.1	38.9	54.3	59.6	53.7	36.8	11.0	0.0	1.2	5.6
120°	0.6	12.5	37.1	51.6	55.8	51.0	35.0	10.4	0.0	1.2	5.3
122.5°	0.6	11.9	35.6	49.2	53.7	48.9	33.5	10.1	0.0	0.9	4.7
125°	0.6	11.3	33.5	46.6	50.7	46.0	30.9	9.8	0.0	0.6	4.2
127.5°	0.6	10.7	31.4	44.5	48.4	43.9	29.1	9.5	0.0	0.6	3.9
130°	0.6	10.4	28.8	41.8	45.7	41.2	27.0	9.5	0.0	0.6	3.6
132.5°	0.6	10.1	25.8	39.2	43.3	38.6	24.9	9.2	0.0	0.6	3.0
135°	0.6	9.8	22.8	36.5	40.3	35.9	23.1	8.9	0.0	0.6	2.7
137.5°	0.6	9.2	20.2	33.5	37.4	32.9	22.0	8.3	0.0	0.6	2.4
140°	0.6	8.6	18.1	31.1	34.4	30.3	20.2	7.7	0.0	0.3	1.8
142.5°	0.6	7.7	16.3	28.2	31.4	27.6	18.1	6.5	0.0	0.3	1.8
145°	0.6	6.8	14.8	24.6	28.5	24.6	16.9	5.9	0.0	0.3	1.5
147.5°	0.6	6.2	13.3	20.8	25.8	22.5	15.1	5.0	0.0	0.3	1.2
150°	0.6	5.6	11.6	17.5	22.8	19.9	13.9	4.4	0.0	0.0	0.9
152.5°	0.6	5.0	10.1	14.5	20.5	18.1	12.5	3.9	0.0	0.0	0.6
155°	0.9	4.7	8.6	12.8	17.8	15.7	10.4	3.3	0.0	0.0	0.6
157.5°	0.9	4.2	7.1	10.4	15.7	13.6	8.3	2.7	0.0	0.0	0.3
160°	0.9	3.9	5.9	8.0	13.1	11.3	6.8	2.1	0.0	0.0	0.3
162.5°	0.9	3.6	5.0	5.9	10.7	8.9	5.3	1.5	0.0	0.0	0.3
165°	0.9	3.0	4.4	4.2	8.3	6.8	4.2	0.9	0.0	0.0	0.0
167.5°	0.9	2.7	3.6	3.0	6.2	5.0	3.0	0.6	0.0	0.0	0.0
170°	0.9	2.1	3.0	2.1	1.8	3.3	1.8	0.3	0.0	0.0	0.0
172.5°	0.9	1.8	2.4	1.5	0.6	1.8	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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**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	905.9	905.9	905.9	905.9	905.9	905.9
2.5°	881.0	871.2	862.3	871.8	878.7	905.1
5°	838.0	827.6	828.8	837.4	860.3	908.3
7.5°	793.5	776.3	780.5	804.5	838.3	892.9
10°	741.0	725.3	729.1	765.3	812.8	884.3
12.5°	694.1	667.7	690.3	724.4	783.1	879.5
15°	639.3	618.5	630.7	681.1	754.7	857.6
17.5°	579.9	563.9	578.5	628.6	719.7	855.2
20°	534.3	512.0	529.2	584.4	676.3	830.3
22.5°	482.9	466.0	484.1	534.8	632.1	803.9
25°	440.8	423.0	441.1	491.5	593.0	772.8
27.5°	399.9	383.6	399.9	446.2	554.1	747.5
30°	364.0	348.3	364.9	409.4	508.7	709.9
32.5°	330.5	310.3	331.6	374.7	468.7	681.1
35°	295.8	280.6	296.6	344.4	424.2	640.7
37.5°	267.0	251.3	270.2	311.2	386.5	601.6
40°	239.7	225.7	240.9	284.5	354.5	553.8
42.5°	218.3	204.4	219.8	260.2	322.2	517.6
45°	197.6	187.2	199.6	233.5	289.5	469.9
47.5°	182.4	173.5	183.9	213.9	262.2	426.9
50°	169.4	163.2	170.6	194.3	234.1	382.1
52.5°	157.8	151.6	160.2	179.2	211.8	341.1
55°	148.9	143.3	149.8	164.9	189.6	302.6
57.5°	139.1	135.6	140.6	149.8	172.1	268.2
60°	132.0	128.1	133.5	140.9	152.2	233.5
62.5°	124.0	121.9	125.2	131.1	137.0	202.0
65°	116.9	113.9	118.1	120.1	119.5	175.0
67.5°	109.2	108.3	110.6	110.9	106.5	147.7
70°	101.2	100.6	103.5	101.7	92.6	122.5
72.5°	94.6	94.6	96.4	92.8	80.7	98.8
75°	87.5	88.1	89.6	85.4	67.9	77.7
77.5°	81.0	81.6	81.9	76.2	57.0	59.3
80°	73.6	73.3	76.2	69.1	46.3	42.4
82.5°	67.0	65.9	67.6	60.5	37.4	27.9
85°	59.6	59.9	61.1	52.8	30.0	16.9
87.5°	53.7	53.7	54.9	46.6	22.5	7.4
90°	46.6	46.0	47.8	39.5	16.9	0.6
92.5°	40.6	40.6	41.8	33.8	12.5	0.6
95°	34.7	35.0	35.9	27.9	9.5	0.9
97.5°	29.7	30.0	31.1	23.7	6.8	0.9
100°	25.2	25.5	26.1	19.0	5.3	0.6
102.5°	21.1	22.0	22.0	15.7	4.2	0.6
105°	17.8	19.0	18.4	12.8	3.9	0.6
107.5°	14.8	16.0	16.0	10.4	3.9	0.6
110°	12.2	13.9	13.6	8.9	3.0	0.6





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**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	10.4	11.9	11.0	7.7	3.0	0.6
115°	8.9	10.4	9.8	7.1	2.7	0.6
117.5°	8.0	8.9	8.9	6.8	2.7	0.6
120°	7.4	8.3	8.0	6.5	2.7	0.6
122.5°	6.8	7.4	7.4	5.9	2.4	0.6
125°	6.5	6.8	7.1	5.3	2.4	0.6
127.5°	6.2	6.8	6.8	5.0	2.1	0.6
130°	5.6	6.2	6.2	4.7	2.1	0.6
132.5°	5.0	5.6	5.6	4.4	2.1	0.6
135°	4.7	5.3	5.3	4.2	2.1	0.6
137.5°	4.4	4.7	4.7	3.9	2.1	0.6
140°	3.9	4.4	4.4	3.6	2.1	0.6
142.5°	3.6	4.2	4.2	3.3	1.8	0.6
145°	3.3	3.6	3.9	3.0	1.8	0.6
147.5°	2.7	3.3	3.6	2.7	1.8	0.6
150°	2.1	3.0	3.0	2.7	1.8	0.6
152.5°	1.5	2.7	2.7	2.4	1.5	0.6
155°	1.2	2.1	2.4	2.1	1.5	0.9
157.5°	0.9	1.8	2.1	2.1	1.5	0.9
160°	0.6	1.5	1.8	1.8	1.2	0.9
162.5°	0.3	1.2	1.5	1.8	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: P892503  
 CATALOG NUMBER: 2MB-2SL-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	19.03	20.49	19.49	20.92	21.38	21.20	22.66	21.65	23.09	23.54
	3H	19.86	21.17	20.32	21.62	22.11	22.87	24.18	23.33	24.63	25.12
	4H	20.06	21.30	20.55	21.76	22.28	23.68	24.92	24.17	25.38	25.89
	6H	20.15	21.30	20.65	21.78	22.31	24.51	25.66	25.01	26.14	26.66
	8H	20.15	21.25	20.67	21.75	22.29	24.95	26.05	25.46	26.54	27.08
	12H	20.14	21.20	20.66	21.69	22.25	25.43	26.49	25.95	26.98	27.54
4H	2H	19.46	20.70	19.95	21.16	21.67	21.57	22.81	22.06	23.27	23.78
	3H	20.55	21.60	21.06	22.11	22.64	23.42	24.46	23.92	24.97	25.50
	4H	20.89	21.84	21.42	22.36	22.93	24.37	25.31	24.89	25.83	26.40
	6H	21.09	21.92	21.63	22.46	23.05	25.36	26.19	25.91	26.74	27.32
	8H	21.11	21.89	21.66	22.44	23.03	25.89	26.67	26.44	27.21	27.81
	12H	21.12	21.82	21.69	22.40	23.00	26.49	27.19	27.06	27.77	28.37
8H	4H	21.21	21.99	21.76	22.54	23.13	24.51	25.29	25.06	25.83	26.43
	6H	21.53	22.19	22.11	22.77	23.38	25.64	26.29	26.22	26.88	27.48
	8H	21.62	22.21	22.22	22.81	23.42	26.29	26.87	26.88	27.47	28.09
	12H	21.68	22.20	22.27	22.79	23.47	27.05	27.57	27.64	28.16	28.84
12H	4H	21.28	21.99	21.85	22.56	23.16	24.50	25.21	25.07	25.78	26.38
	6H	21.66	22.25	22.26	22.85	23.47	25.65	26.24	26.25	26.84	27.46
	8H	21.82	22.34	22.42	22.93	23.61	26.36	26.88	26.95	27.47	28.15