

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: P893336

Luminaire Tested: 4MB-2SL-RND-UNV-L950

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893336
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2403-327-1)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-2SL-RND-UNV-L950
Description: 2000 Lumen 4FT MICROBAY LINEAR BAY with ROUND FROSTED LENS, 90CRI, 5000K CCT
Light Source: -
Ballast/Driver: -

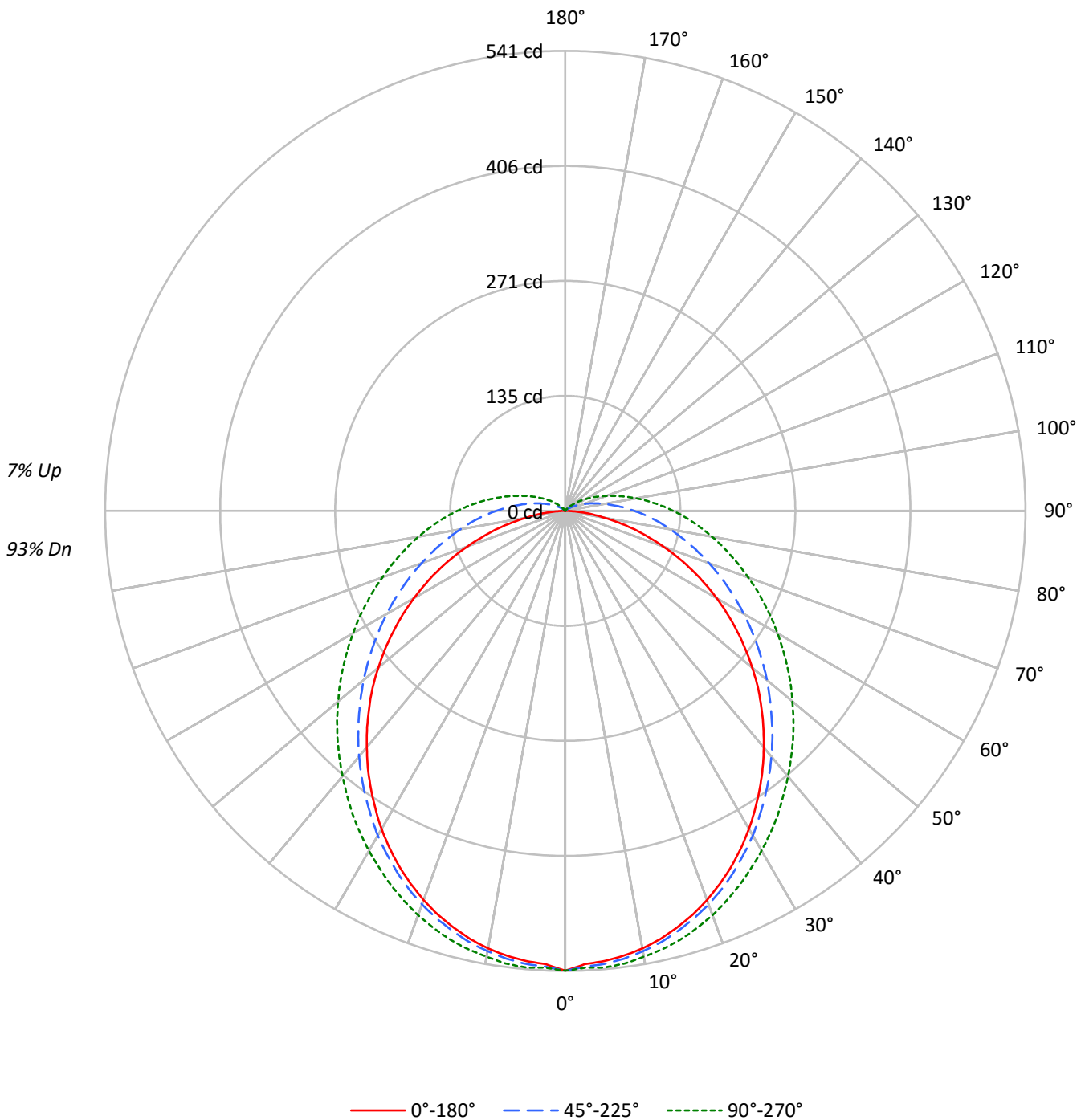
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1789.9 lumens
Efficiency: N/A
Efficacy: 129.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.35
Luminous Opening: Rectangular (W 0.38' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 13.8
Input Voltage (V): 120
Input Current (A_{in}): 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

TEST NUMBER: P893336
CATALOG NUMBER: 4MB-2SL-RND-UNV-L950

Luminous Intensity Polar Plot





TEST NUMBER: P893336
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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.1	2.9
10°-20°	145.7	8.1
20°-30°	218.2	12.2
30°-40°	260.1	14.5
40°-50°	269.8	15.1
50°-60°	250.3	14.0
60°-70°	208.8	11.7
70°-80°	155.7	8.7
80°-90°	103.7	5.8
90°-100°	63.1	3.5
100°-110°	35.2	2.0
110°-120°	17.6	1.0
120°-130°	7.3	0.4
130°-140°	2.3	0.1
140°-150°	0.6	0.0
150°-160°	0.2	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	415.0	23.2
0°-40°	675.1	37.7
0°-60°	1195.2	66.8
0°-90°	1663.3	92.9
90°-120°	115.9	6.5
90°-150°	126.2	7.0
90°-180°	127.0	7.1
0°-180°	1789.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	541	541	541	541	541	
5°	531	544	535	538	539	50
15°	507	520	512	521	522	143
25°	462	474	468	482	485	213
35°	399	409	410	430	436	249
45°	326	334	343	370	379	251
55°	247	255	275	308	319	221
65°	164	177	210	246	258	162
75°	84	108	152	188	201	89
85°	20	53	102	138	151	22
90°	1	35	81	115	127	1
95°	0	22	63	94	105	0
105°	0	7	34	58	67	0
115°	0	2	16	33	39	0
125°	0	0	6	16	20	0
135°	0	0	2	6	7	0
145°	0	0	0	1	2	0
155°	1	1	0	0	0	0
165°	1	1	0	0	0	0
175°	1	1	1	0	0	0
180°	1	1	1	1	1	



TEST NUMBER: P893336

CATALOG NUMBER: 4MB-2SL-RND-UNV-L950

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	540.7	540.7	540.7	540.7	540.7	540.7	540.7	540.7	540.7	540.7	540.7
2.5°	533.5	534.4	542.0	541.6	540.3	545.4	546.6	542.4	535.6	542.4	536.5
5°	531.4	532.3	539.9	539.4	538.2	543.7	544.1	540.3	533.5	540.3	534.8
7.5°	527.6	528.4	536.1	535.6	534.8	540.3	539.9	536.9	529.7	536.9	531.0
10°	522.5	522.9	531.0	530.1	529.7	535.2	533.9	531.4	524.2	531.4	525.9
12.5°	515.7	516.2	524.2	523.4	523.4	528.4	526.8	524.6	517.4	524.2	519.6
15°	507.3	507.7	515.3	514.9	514.9	520.4	517.9	516.2	509.4	516.6	511.5
17.5°	498.0	497.6	505.6	504.7	505.6	510.7	507.3	506.4	500.1	506.9	502.6
20°	487.0	487.0	494.2	493.7	495.0	499.7	495.4	495.9	489.5	496.7	492.5
22.5°	474.7	474.3	481.5	481.5	482.7	487.4	482.7	484.0	477.7	484.4	481.1
25°	461.6	460.7	467.9	467.9	470.1	473.9	468.8	470.5	464.6	471.3	468.4
27.5°	447.2	445.9	453.1	453.6	455.2	459.1	453.6	456.1	450.6	456.9	454.8
30°	432.0	430.7	437.9	438.3	440.4	443.4	437.9	441.3	436.2	442.6	440.9
32.5°	415.5	414.6	421.4	422.2	424.4	426.5	421.4	424.8	420.6	426.9	425.2
35°	398.6	397.7	404.1	405.3	407.4	409.1	403.6	408.3	404.5	410.4	409.6
37.5°	381.2	379.9	386.7	387.6	390.1	390.9	385.9	391.4	388.0	393.9	393.5
40°	363.0	361.7	368.5	369.4	371.9	371.9	367.7	373.6	371.1	376.6	377.0
42.5°	344.8	343.6	349.5	351.2	353.3	353.3	349.1	355.4	353.7	359.2	360.5
45°	325.8	324.5	330.0	331.7	334.2	334.2	330.0	337.2	335.9	341.4	343.1
47.5°	307.2	305.5	310.5	312.2	314.8	314.4	311.0	318.2	317.7	323.2	326.2
50°	286.9	285.6	290.7	292.4	295.3	294.5	291.9	299.5	299.5	305.0	309.3
52.5°	267.0	265.7	270.8	272.5	275.0	275.0	272.5	280.5	281.8	287.3	292.4
55°	246.7	245.0	250.0	251.7	254.7	255.1	253.0	261.0	263.6	269.9	275.4
57.5°	226.4	225.5	229.7	231.4	235.2	235.2	234.0	242.4	245.8	252.6	258.9
60°	205.6	204.8	208.6	210.7	214.9	215.8	214.9	223.8	228.5	235.2	242.4
62.5°	184.9	184.0	187.9	190.8	195.5	196.3	196.7	206.0	211.1	218.3	226.4
65°	164.2	163.3	167.1	170.5	176.0	177.3	178.5	188.3	194.2	201.8	210.3
67.5°	143.4	143.0	146.8	151.0	157.0	158.7	160.8	170.9	177.7	185.7	195.0
70°	123.1	122.7	126.5	131.6	138.8	140.9	143.4	153.6	162.0	170.5	179.8
72.5°	102.8	103.2	107.5	113.4	121.4	123.5	126.9	137.5	146.8	155.7	165.4
75°	84.2	84.2	88.8	95.6	104.5	107.5	111.3	122.3	132.0	141.3	151.5
77.5°	65.2	65.2	70.7	79.1	88.8	91.8	96.5	107.9	118.5	127.8	137.9
80°	47.8	48.7	55.0	63.5	73.6	77.4	82.9	94.3	105.8	115.1	125.2
82.5°	32.6	33.8	40.6	50.3	60.5	64.3	69.8	82.1	93.5	103.2	113.8
85°	19.5	21.6	28.8	38.5	49.1	53.3	59.2	70.7	82.1	91.8	102.4
87.5°	8.9	11.8	19.5	29.2	39.3	44.0	49.1	60.1	71.5	81.2	92.2
90°	0.8	5.1	12.7	21.2	30.9	35.1	40.2	50.8	61.8	70.7	81.2
92.5°	0.0	2.1	7.6	15.2	23.7	27.9	32.6	42.7	52.5	61.3	71.5
95°	0.0	0.8	4.2	10.6	17.8	21.6	25.8	35.1	44.8	53.3	62.6
97.5°	0.0	0.4	2.5	7.2	13.1	16.5	20.3	28.8	37.7	45.7	54.2
100°	0.0	0.4	1.3	4.7	9.7	12.3	16.1	23.3	31.3	38.5	47.0
102.5°	0.0	0.0	0.8	3.0	7.2	9.3	12.3	18.6	25.8	32.6	40.2
105°	0.0	0.0	0.4	2.1	5.1	6.8	9.3	14.8	21.2	27.1	34.3
107.5°	0.0	0.0	0.4	1.3	3.4	5.1	7.2	11.4	16.9	22.4	28.8
110°	0.4	0.4	0.4	0.8	2.5	3.8	5.1	8.9	14.0	18.6	24.1



TEST NUMBER: P893336

CATALOG NUMBER: 4MB-2SL-RND-UNV-L950

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.4	0.4	0.4	0.4	1.7	2.5	3.8	6.8	11.0	14.8	19.9
115°	0.4	0.4	0.4	0.4	1.3	1.7	2.5	5.1	8.5	11.8	16.1
117.5°	0.4	0.4	0.4	0.4	0.8	1.3	1.7	3.8	6.3	9.3	13.1
120°	0.4	0.4	0.4	0.4	0.4	0.8	1.3	2.5	5.1	7.2	10.6
122.5°	0.4	0.4	0.4	0.4	0.4	0.8	0.8	2.1	3.8	5.5	8.0
125°	0.4	0.4	0.4	0.4	0.4	0.4	0.8	1.3	2.5	4.2	6.3
127.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.8	1.3	1.7	3.0	4.7
130°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.8	1.3	2.1	3.4
132.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.8	1.3	1.7	2.5
135°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.8	1.3	1.7
137.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.8	0.8	1.3
140°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.8	0.8
142.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.8
145°	0.4	0.8	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
147.5°	0.4	0.8	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
150°	0.4	0.8	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
152.5°	0.8	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4	0.4	0.4
155°	0.8	0.8	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4	0.4
157.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.4	0.4	0.4
160°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.4	0.4	0.4
162.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.4	0.4	0.4
165°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.4	0.4
167.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.4
170°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
172.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.4
175°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
177.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
180°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8



TEST NUMBER: P893336

CATALOG NUMBER: 4MB-2SL-RND-UNV-L950

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	540.7	540.7	540.7	540.7	540.7	540.7	540.7	540.7	540.7	540.7
2.5°	538.2	539.4	540.7	537.3	539.4	543.3	544.5	539.4	541.1	537.8
5°	536.5	537.3	539.0	534.8	537.8	541.1	543.3	539.0	541.6	539.0
7.5°	533.1	533.9	536.1	531.8	535.6	538.6	541.1	536.9	539.4	536.9
10°	528.0	529.3	532.3	527.2	531.8	534.4	536.9	532.3	534.8	532.3
12.5°	521.7	523.8	526.3	521.7	526.3	528.4	531.8	527.2	530.1	528.0
15°	514.1	516.2	519.6	514.9	520.8	522.5	525.9	521.2	524.2	522.1
17.5°	505.2	507.7	511.9	506.4	513.2	514.5	517.9	513.6	516.6	514.5
20°	495.0	497.6	501.8	496.7	503.5	504.3	508.1	504.3	507.3	506.0
22.5°	483.2	486.1	490.4	485.7	492.9	492.9	497.6	493.7	497.1	495.9
25°	470.9	474.3	478.9	473.9	481.5	481.5	486.6	482.7	486.1	485.3
27.5°	457.8	461.6	467.1	462.0	469.6	469.2	474.3	470.9	474.7	473.4
30°	443.8	448.1	453.6	449.3	457.4	456.5	461.6	458.6	462.0	461.6
32.5°	428.6	433.2	440.0	435.4	443.4	442.6	448.9	445.5	449.7	448.9
35°	413.4	418.4	425.2	421.0	429.9	428.6	434.9	432.0	436.2	435.8
37.5°	397.7	403.2	410.0	406.6	415.1	413.8	420.6	418.0	422.7	421.4
40°	381.6	387.1	394.3	391.4	400.2	398.6	405.7	403.6	408.3	407.4
42.5°	365.6	371.5	378.7	377.0	385.4	383.7	390.9	389.2	393.9	393.1
45°	349.1	355.4	363.0	361.3	370.2	368.5	375.7	374.4	379.1	378.7
47.5°	332.6	339.3	346.9	346.1	354.6	352.9	360.5	359.2	363.9	363.9
50°	315.6	323.2	330.9	330.4	338.9	337.2	344.0	344.0	349.1	348.6
52.5°	298.7	306.7	314.8	314.8	323.2	321.6	329.2	328.7	333.8	333.8
55°	282.6	289.8	297.9	299.5	307.6	305.0	313.1	313.9	318.2	318.6
57.5°	266.5	274.2	282.2	284.3	291.9	290.2	297.9	298.7	302.9	303.4
60°	250.5	257.7	265.7	268.7	276.3	274.6	282.2	283.0	287.7	288.1
62.5°	234.4	241.6	250.5	253.4	260.6	259.4	267.4	268.2	272.5	273.3
65°	218.7	226.4	234.8	239.0	245.8	244.1	252.2	253.0	257.7	258.1
67.5°	203.5	211.1	219.6	224.2	230.6	229.7	237.4	239.0	242.9	243.7
70°	188.7	196.3	205.2	209.9	216.2	215.8	223.0	224.2	228.5	228.9
72.5°	174.3	181.9	190.8	196.3	201.8	201.4	208.6	210.3	214.5	214.9
75°	160.4	168.4	176.9	182.8	188.3	187.9	195.0	196.7	200.5	201.0
77.5°	147.2	155.3	164.2	170.1	174.7	175.2	181.5	183.2	187.0	188.3
80°	135.0	142.6	151.0	157.4	161.6	162.5	168.4	170.5	173.5	175.2
82.5°	123.1	130.7	139.2	145.1	149.4	150.2	155.7	158.2	161.2	162.5
85°	111.7	119.3	127.4	133.7	137.5	137.9	143.4	146.0	148.5	150.6
87.5°	100.7	108.3	115.9	122.7	126.1	126.9	132.0	134.5	136.7	138.8
90°	89.7	97.3	104.9	111.3	114.7	115.1	120.6	123.1	125.2	126.9
92.5°	79.5	87.2	94.8	101.1	104.1	104.9	109.6	112.5	114.2	115.9
95°	69.8	77.4	84.2	91.0	93.9	95.2	99.4	102.0	104.1	104.9
97.5°	61.3	68.1	74.5	81.2	83.8	85.0	89.3	92.2	93.9	94.8
100°	53.3	59.7	65.6	71.9	74.5	75.7	79.5	82.1	83.8	85.0
102.5°	46.1	52.0	57.5	63.5	66.0	66.8	70.2	72.8	74.5	75.7
105°	39.8	45.3	50.3	55.8	58.0	59.2	62.2	64.3	66.0	66.8
107.5°	33.8	39.3	43.6	48.7	50.8	51.6	54.6	57.1	58.4	58.8
110°	28.8	33.4	37.7	41.9	44.4	45.3	47.8	49.9	51.2	51.6



TEST NUMBER: P893336
 CATALOG NUMBER: 4MB-2SL-RND-UNV-L950

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	24.1	28.3	32.2	36.0	38.1	38.9	41.5	43.6	44.4	44.8
115°	19.9	24.1	27.1	30.9	32.6	33.4	35.5	37.7	38.1	38.9
117.5°	16.1	19.9	22.8	25.8	27.5	28.3	30.0	31.7	32.6	33.0
120°	13.1	16.1	18.6	21.6	22.8	23.7	25.4	27.1	27.5	27.9
122.5°	10.6	13.1	15.2	17.8	19.0	19.9	21.2	22.4	22.8	23.3
125°	8.0	10.6	12.3	14.4	15.7	16.1	17.3	18.6	19.0	19.5
127.5°	6.3	8.0	9.7	11.4	12.3	12.7	14.0	14.8	15.2	15.7
130°	4.7	5.9	7.2	8.9	9.7	10.2	11.0	11.8	12.3	12.3
132.5°	3.4	4.7	5.5	6.8	7.2	7.6	8.5	9.3	9.3	9.7
135°	2.1	3.0	3.8	4.7	5.5	5.5	6.3	6.8	7.2	7.2
137.5°	1.7	2.1	2.5	3.4	3.8	4.2	4.2	5.1	5.1	5.1
140°	1.3	1.7	1.7	2.1	2.5	3.0	3.0	3.4	3.4	3.4
142.5°	0.8	1.3	1.3	1.7	1.7	2.1	2.1	2.1	2.5	2.5
145°	0.8	0.8	0.8	1.3	1.3	1.3	1.3	1.7	1.7	1.7
147.5°	0.4	0.4	0.8	0.8	0.8	0.8	0.8	1.3	1.3	1.3
150°	0.4	0.4	0.4	0.4	0.4	0.8	0.8	0.8	0.8	0.8
152.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
155°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
157.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
160°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
162.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
165°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
167.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
170°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
172.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
175°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.0
177.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.0
180°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8



TEST NUMBER: P893336
 CATALOG NUMBER: 4MB-2SL-RND-UNV-L950

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	14.97	16.50	15.44	16.96	17.45	16.54	18.08	17.01	18.53	19.02
	3H	16.64	18.05	17.13	18.51	19.04	19.17	20.57	19.65	21.04	21.56
	4H	17.24	18.57	17.75	19.06	19.60	20.48	21.81	20.98	22.29	22.83
	6H	17.64	18.88	18.16	19.38	19.94	21.88	23.12	22.40	23.62	24.18
	8H	17.76	18.95	18.29	19.47	20.03	22.63	23.82	23.16	24.34	24.90
	12H	17.83	18.97	18.37	19.49	20.08	23.48	24.62	24.02	25.14	25.73
4H	2H	15.90	17.23	16.40	17.71	18.25	17.09	18.42	17.60	18.91	19.45
	3H	17.88	19.01	18.39	19.54	20.10	20.01	21.14	20.52	21.67	22.23
	4H	18.65	19.69	19.19	20.23	20.83	21.53	22.57	22.07	23.11	23.71
	6H	19.23	20.15	19.79	20.72	21.33	23.17	24.10	23.73	24.66	25.27
	8H	19.41	20.28	19.98	20.84	21.47	24.06	24.92	24.62	25.49	26.11
	12H	19.54	20.33	20.12	20.92	21.55	25.06	25.85	25.64	26.44	27.07
8H	4H	19.53	20.40	20.09	20.96	21.58	21.89	22.76	22.45	23.32	23.95
	6H	20.41	21.15	21.01	21.75	22.38	23.79	24.53	24.39	25.14	25.76
	8H	20.76	21.43	21.37	22.04	22.68	24.88	25.54	25.48	26.16	26.80
	12H	21.03	21.63	21.64	22.23	22.94	26.14	26.74	26.75	27.34	28.05
12H	4H	19.81	20.60	20.39	21.19	21.81	21.93	22.72	22.52	23.31	23.94
	6H	20.86	21.53	21.47	22.14	22.78	23.90	24.57	24.51	25.19	25.83
	8H	21.38	21.97	21.99	22.58	23.29	25.10	25.70	25.71	26.30	27.01