

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: NEO-RAY

Report Number: P997564

Luminaire Tested: SA2XXDP-B290DB27-4F0-XX-W2A-A

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997564
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-19)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDP-B290DB27-4F0-XX-W2A-A
Description: Define 2 Direct Recessed with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

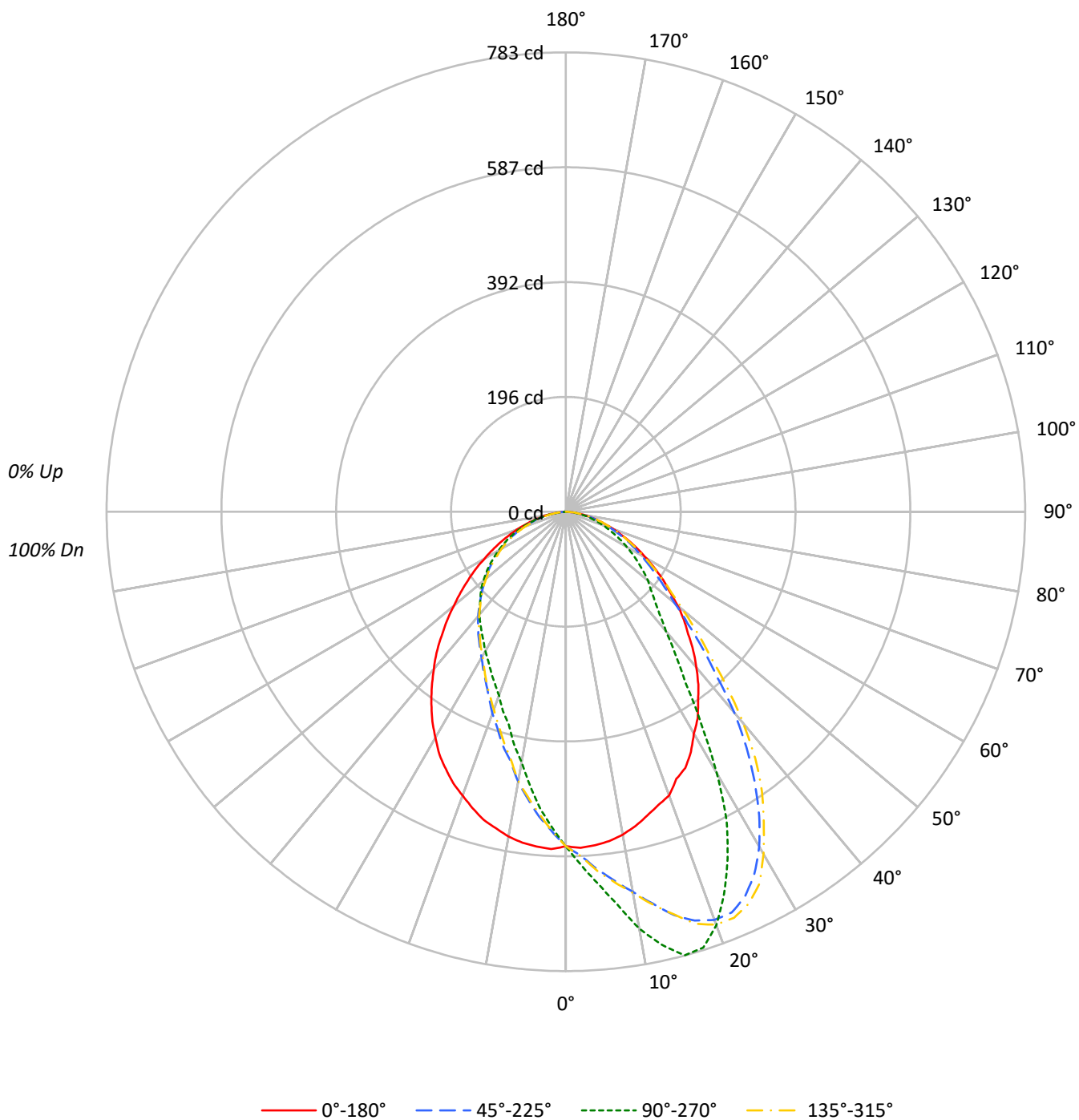
Lumens per Lamp: N/A
Luminaire Lumens: 1258.0 lumens
Efficiency: N/A
Efficacy: 96.8 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.09 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 13
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P997564

CATALOG NUMBER: SA2XXDP-B290DB27-4F0-XX-W2A-A

Luminous Intensity Polar Plot



TEST NUMBER: P997564

CATALOG NUMBER: SA2XXDP-B290DB27-4F0-XX-W2A-A

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86		
2	101	94	87	82	98	92	86	81	88	83	79	85	81	78	82	79	76	74		
3	93	83	76	70	90	82	75	69	79	73	68	76	71	67	74	69	66	64		
4	86	75	66	60	83	73	66	60	71	64	59	69	63	58	66	62	58	55		
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49		
6	74	61	53	47	72	60	52	46	58	51	46	57	51	46	55	50	45	43		
7	69	56	48	42	67	55	47	42	54	46	41	52	46	41	51	45	41	39		
8	64	51	43	38	63	51	43	38	49	42	37	48	42	37	47	41	37	35		
9	60	47	39	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32		
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	9026	9026	9026	9026
5°	9067	10119	9102	8050
10°	8982	11595	9038	6966
15°	8784	12827	8905	6155
20°	8667	12632	8667	5611
25°	8413	11389	8450	5266
30°	7978	9413	8130	5016
35°	7596	6860	7724	4835
40°	7154	5480	7236	4736
45°	6604	4788	6711	4600
50°	6129	4502	6142	4511
55°	5588	4148	5624	4391
60°	5008	3802	5078	4204
65°	4498	3465	4581	4023
70°	3994	3143	4096	3753
75°	3431	2789	3566	3321
80°	2799	2397	2999	2680
85°	2070	2143	2234	1598

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 155°

Vertical Angle: 45°

Luminance: 11784 cd/sqm

TEST NUMBER: P997564

CATALOG NUMBER: SA2XXDP-B290DB27-4F0-XX-W2A-A

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.3	4.3
10°-20°	158.1	12.6
20°-30°	229.4	18.2
30°-40°	241.8	19.2
40°-50°	214.0	17.0
50°-60°	170.9	13.6
60°-70°	116.1	9.2
70°-80°	59.4	4.7
80°-90°	14.0	1.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	441.8	35.1
0°-40°	683.6	54.3
0°-60°	1068.5	84.9
0°-90°	1258.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1258.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	570	570	570	570	570	
5°	571	637	573	507	571	54
15°	536	783	543	376	536	151
25°	482	652	484	302	482	220
35°	393	355	400	250	393	246
45°	295	214	300	206	295	229
55°	202	150	204	159	202	181
65°	120	92	122	107	120	119
75°	56	46	58	54	56	60
85°	11	12	12	9	11	14
90°	0	0	0	0	0	

TEST NUMBER: P997564

CATALOG NUMBER: SA2XXDP-B290DB27-4F0-XX-W2A-A

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2
2.5°	573.3	574.6	576.8	577.2	581.6	585.1	589.0	589.0	590.3	589.9	586.4
5°	570.6	574.6	580.3	585.1	593.0	596.5	601.7	605.7	609.2	611.8	611.4
7.5°	566.2	573.3	581.6	590.8	601.3	607.4	614.9	621.9	626.7	631.1	634.2
10°	558.8	570.6	582.0	594.3	607.9	616.2	625.0	634.2	641.6	649.9	657.8
12.5°	548.7	565.8	579.8	596.0	612.7	621.9	635.9	642.9	657.4	678.4	684.1
15°	536.0	559.2	572.4	593.0	614.9	622.3	641.6	653.0	682.8	696.0	711.7
17.5°	524.2	550.0	567.6	591.2	612.7	627.2	646.0	669.2	694.2	713.1	730.6
20°	514.5	539.5	560.5	586.8	614.0	632.4	652.1	680.2	707.4	726.6	740.2
22.5°	492.6	524.6	549.1	578.5	611.4	636.8	655.6	686.3	715.7	727.5	739.4
25°	481.7	509.3	537.8	571.1	609.6	639.9	656.1	690.3	716.1	720.5	723.1
27.5°	461.5	492.6	525.9	564.0	609.2	634.6	655.2	686.3	706.9	703.9	696.0
30°	436.5	474.6	511.5	552.7	603.1	630.7	649.9	678.4	689.0	673.2	659.2
32.5°	418.1	454.0	494.8	542.6	596.0	622.3	641.2	663.5	665.7	637.2	613.6
35°	393.1	433.0	479.0	529.4	584.2	607.9	625.4	639.0	628.5	588.6	560.5
37.5°	370.8	410.2	459.3	510.6	568.0	591.2	605.2	607.4	581.6	546.5	505.3
40°	346.2	387.0	438.3	492.2	550.0	570.2	578.9	572.4	535.1	494.4	446.6
42.5°	321.7	362.0	417.2	472.5	527.2	544.3	547.8	529.9	484.3	436.5	381.3
45°	295.0	337.0	392.2	447.9	500.9	510.6	511.0	485.2	431.3	381.3	330.0
47.5°	273.0	312.0	366.8	422.5	467.2	473.8	471.1	441.3	382.6	326.5	281.8
50°	248.9	286.2	340.5	395.3	433.4	435.2	428.6	386.1	328.7	277.4	241.9
52.5°	223.1	260.8	310.7	363.3	397.5	394.9	382.2	336.6	282.7	240.2	213.0
55°	202.5	235.8	282.7	334.0	358.1	350.6	336.6	290.1	247.6	211.7	188.0
57.5°	179.7	209.1	255.1	299.8	313.8	306.8	292.8	249.4	209.9	182.8	167.0
60°	158.2	184.9	225.3	262.5	273.5	266.0	249.8	210.8	182.3	159.5	147.7
62.5°	138.5	161.7	195.5	229.7	234.0	226.6	212.6	181.0	156.5	138.5	129.7
65°	120.1	142.0	169.2	195.0	199.0	191.1	176.6	153.8	133.2	121.8	113.5
67.5°	102.1	119.6	143.8	162.6	164.8	157.3	145.5	127.1	114.4	102.1	96.0
70°	86.3	99.5	118.3	133.7	134.5	127.5	121.4	104.7	95.1	86.3	81.5
72.5°	71.0	80.2	94.7	106.1	106.5	102.1	96.4	85.9	77.6	71.4	66.6
75°	56.1	64.0	72.8	82.8	82.4	78.9	74.5	67.9	60.9	57.0	54.8
77.5°	43.0	47.8	54.8	61.4	61.4	59.6	57.0	52.2	47.8	43.8	41.6
80°	30.7	33.7	39.4	41.6	42.5	42.1	39.9	36.4	34.6	31.6	30.7
82.5°	19.7	21.9	24.5	26.7	28.0	27.2	26.7	25.0	22.4	21.5	20.6
85°	11.4	12.3	13.6	14.9	15.3	14.9	15.8	14.5	13.1	13.1	12.7
87.5°	4.8	5.3	6.1	6.1	6.6	6.6	6.1	6.6	6.6	6.1	5.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P997564

CATALOG NUMBER: SA2XXDP-B290DB27-4F0-XX-W2A-A

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2
2.5°	592.5	593.0	593.9	598.2	600.4	600.9	599.1	603.1	604.4	603.1	602.2
5°	620.6	623.2	628.5	634.2	633.7	634.2	636.8	639.4	640.3	636.8	638.1
7.5°	645.1	650.4	656.1	664.8	664.8	669.2	671.0	673.2	678.4	675.8	674.9
10°	673.2	680.2	690.7	704.7	705.2	709.6	713.9	720.9	723.1	721.4	722.3
12.5°	708.2	721.8	722.7	738.0	745.1	745.9	752.9	751.6	756.0	756.0	763.5
15°	723.6	744.6	756.4	771.3	775.7	770.5	776.2	782.3	782.7	782.7	782.3
17.5°	751.2	759.5	771.3	779.2	781.0	781.0	781.4	784.1	782.3	778.8	781.4
20°	756.9	760.4	764.8	763.9	764.8	760.4	756.0	751.6	752.1	749.9	756.4
22.5°	746.4	745.5	735.4	728.8	728.8	720.1	711.7	707.8	703.9	705.2	707.4
25°	720.1	706.5	694.2	684.6	682.4	668.4	657.0	653.5	646.9	652.1	653.0
27.5°	678.0	662.7	642.9	634.6	623.2	617.5	609.6	599.1	585.5	593.4	592.1
30°	632.9	610.1	593.9	573.7	555.7	554.4	539.5	522.0	515.0	515.0	518.9
32.5°	582.5	552.2	528.5	500.1	482.5	475.1	457.1	439.6	443.5	430.4	435.2
35°	523.7	483.8	454.0	426.4	413.3	404.5	381.3	371.6	361.1	355.0	366.4
37.5°	467.6	421.6	383.5	353.2	348.4	332.6	316.9	310.7	304.6	307.2	306.8
40°	399.3	358.5	324.3	300.7	292.3	284.9	274.4	266.9	263.0	265.2	265.6
42.5°	337.5	303.3	277.9	261.2	254.2	248.9	243.7	237.5	236.2	236.2	238.0
45°	289.7	261.6	244.6	231.0	227.0	223.1	219.1	216.5	215.6	213.9	215.2
47.5°	251.6	229.2	218.7	208.6	204.2	203.4	199.8	198.5	196.8	196.3	196.8
50°	219.6	205.5	195.9	190.2	187.1	185.8	184.1	181.4	180.6	182.8	181.9
52.5°	197.2	184.1	178.8	173.1	171.4	169.6	167.0	167.4	167.0	166.1	166.1
55°	174.9	166.5	161.3	156.9	156.5	154.7	152.5	151.6	151.2	150.3	151.6
57.5°	156.9	150.3	145.5	141.6	139.8	139.8	137.6	135.9	135.9	135.4	135.9
60°	138.9	132.4	129.3	125.3	124.0	123.6	122.3	121.4	120.1	120.1	120.1
62.5°	122.3	117.0	113.5	110.0	110.4	108.3	106.5	105.6	105.6	106.1	106.1
65°	106.5	103.0	98.6	95.5	94.7	94.2	93.4	92.9	91.6	92.5	92.5
67.5°	92.0	87.2	84.6	83.3	82.0	81.5	80.6	79.8	79.3	78.9	79.8
70°	77.6	73.6	71.4	70.6	69.2	68.8	68.4	67.1	67.5	67.9	68.4
72.5°	64.4	60.9	60.5	57.9	57.9	57.9	56.1	57.0	56.5	55.7	56.5
75°	50.8	49.1	48.2	46.9	47.3	46.9	46.5	45.1	45.1	45.6	46.0
77.5°	40.3	38.6	38.1	36.8	35.9	36.8	35.9	35.5	35.5	35.9	35.9
80°	29.8	28.9	27.6	27.6	27.6	27.2	27.2	27.2	26.7	26.3	26.7
82.5°	19.7	19.7	19.3	18.8	19.3	18.4	18.8	18.8	18.8	18.8	18.8
85°	12.7	12.3	12.3	11.8	11.8	11.8	12.3	11.4	11.4	11.8	11.8
87.5°	5.7	5.7	5.7	6.1	5.7	5.7	5.7	6.1	5.7	5.7	5.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P997564

CATALOG NUMBER: SA2XXDP-B290DB27-4F0-XX-W2A-A

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2
2.5°	604.4	601.3	598.7	599.1	601.3	599.5	595.2	589.5	587.3	584.6	587.3
5°	640.7	638.1	632.9	633.3	632.0	630.2	623.2	614.4	614.4	607.4	606.6
7.5°	676.7	672.7	669.2	668.4	663.5	660.0	653.9	641.6	636.8	628.5	623.7
10°	717.0	713.9	710.0	705.2	702.5	696.4	686.3	668.4	659.6	648.2	639.9
12.5°	757.8	757.3	748.6	738.9	738.5	728.8	721.8	697.7	685.9	670.5	650.8
15°	783.6	781.4	776.6	771.8	773.1	762.6	746.8	718.3	710.4	692.0	671.0
17.5°	783.2	783.2	781.9	781.0	779.7	776.6	767.8	749.0	736.3	713.1	693.3
20°	758.2	763.9	765.2	764.8	769.2	771.3	770.9	759.1	749.0	728.4	708.2
22.5°	708.2	721.4	727.1	730.6	739.8	744.6	756.0	751.6	749.0	733.7	716.6
25°	661.8	666.2	683.3	684.1	696.8	708.7	720.1	727.5	737.2	731.5	717.0
27.5°	601.7	611.8	624.1	633.3	635.9	660.0	678.9	692.9	714.8	716.6	711.7
30°	533.8	538.6	558.8	571.1	585.1	602.6	629.8	653.9	673.6	691.6	697.7
32.5°	451.0	470.7	482.5	497.4	509.7	540.8	574.1	605.2	628.0	658.3	671.4
35°	375.2	390.5	410.7	416.8	439.1	465.4	508.8	548.7	583.3	614.0	640.7
37.5°	312.5	324.8	346.2	355.9	369.0	402.8	439.1	488.7	530.3	568.0	601.3
40°	269.5	278.7	295.0	298.0	309.0	339.7	369.0	415.5	470.7	521.5	557.9
42.5°	240.2	244.6	255.5	259.5	266.5	287.1	313.4	357.2	408.5	461.1	512.3
45°	219.1	222.2	228.8	232.3	241.0	250.2	271.7	306.8	347.1	400.1	455.4
47.5°	200.3	204.2	206.9	209.1	213.9	224.0	238.0	263.8	302.4	351.1	404.5
50°	184.5	185.8	190.6	191.1	194.2	200.7	213.9	229.7	260.3	299.8	351.5
52.5°	168.7	170.0	173.1	176.2	177.5	182.8	191.5	204.7	227.5	258.6	304.6
55°	153.0	154.7	157.8	160.0	161.3	165.7	170.9	183.6	201.6	223.5	261.2
57.5°	137.2	141.1	142.0	143.3	145.5	150.3	155.1	162.6	176.6	196.8	224.4
60°	122.3	123.6	126.7	128.0	130.2	132.8	138.9	144.6	154.7	170.5	195.5
62.5°	106.9	110.0	111.3	112.6	114.4	117.5	121.4	127.5	136.3	149.0	168.7
65°	93.8	94.2	96.9	98.6	100.4	102.6	106.5	112.2	117.5	129.3	143.8
67.5°	81.1	82.0	82.8	84.6	86.8	89.0	92.5	95.5	102.1	110.0	121.4
70°	68.8	68.8	71.0	72.3	71.9	74.5	77.1	80.6	85.5	92.9	102.1
72.5°	57.9	57.4	59.2	59.6	60.5	62.2	64.0	67.5	70.1	75.8	82.8
75°	46.0	46.9	47.8	47.8	49.1	50.4	52.2	53.9	57.0	60.5	65.7
77.5°	36.4	36.4	37.3	37.7	39.0	38.6	40.3	42.1	44.3	47.3	51.3
80°	26.7	27.6	27.6	27.6	28.0	28.5	30.2	31.6	32.9	35.1	36.8
82.5°	18.8	18.8	19.7	19.7	19.7	20.6	20.6	21.0	21.9	23.2	24.5
85°	11.8	11.8	11.8	12.3	11.8	12.3	13.1	12.7	13.1	14.0	14.0
87.5°	5.7	5.7	5.7	5.7	5.7	6.1	5.7	6.1	6.6	6.6	6.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P997564

CATALOG NUMBER: SA2XXDP-B290DB27-4F0-XX-W2A-A

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2
2.5°	585.1	582.9	581.6	582.5	579.8	573.3	573.3	575.4	572.8	570.2	566.2
5°	601.3	596.9	594.3	593.9	587.7	577.2	575.0	572.8	567.1	561.0	554.4
7.5°	617.1	609.2	604.8	601.7	593.0	579.4	573.7	568.9	559.7	550.5	542.1
10°	630.2	618.8	613.6	608.8	597.4	580.3	571.1	562.3	550.5	538.6	528.1
12.5°	640.7	627.6	621.0	614.0	600.0	577.6	566.2	552.2	540.4	524.6	514.1
15°	658.3	631.1	625.0	618.4	603.9	573.3	559.2	543.4	527.2	506.2	494.8
17.5°	672.3	635.9	635.5	621.5	602.6	571.5	550.0	529.4	511.9	490.9	472.9
20°	680.6	643.4	636.4	621.9	598.2	559.7	537.3	514.5	495.7	470.3	452.3
22.5°	687.6	653.9	635.5	618.0	589.0	555.7	522.9	501.4	475.5	447.9	430.8
25°	690.3	656.1	636.8	616.6	582.5	544.3	507.1	483.8	454.9	429.9	406.7
27.5°	690.7	655.6	632.0	610.9	573.3	529.4	491.3	466.8	434.8	405.8	382.6
30°	686.3	650.8	629.4	606.6	564.5	515.8	472.0	444.8	410.7	381.7	357.6
32.5°	673.2	641.2	623.7	598.7	553.1	497.0	453.6	423.4	387.4	358.9	335.7
35°	651.3	629.4	610.1	586.8	538.2	479.5	435.2	399.7	363.3	336.2	314.2
37.5°	624.1	612.3	594.3	571.5	521.1	463.7	414.6	375.2	338.8	312.5	291.0
40°	587.3	590.3	572.8	552.2	500.9	442.2	387.9	350.2	316.0	291.4	270.4
42.5°	547.4	560.1	550.0	530.3	478.6	418.5	368.1	326.5	293.2	267.8	250.2
45°	504.4	526.4	520.2	505.8	455.4	393.6	340.1	299.8	270.4	245.9	230.5
47.5°	457.5	488.7	488.7	478.1	429.5	368.6	316.0	274.8	245.9	228.3	213.4
50°	409.8	444.8	450.5	443.5	400.6	340.1	286.6	249.4	224.4	207.3	196.3
52.5°	359.8	400.6	411.1	407.6	369.9	312.9	262.5	226.1	203.4	188.5	178.8
55°	312.0	359.4	370.8	372.1	337.0	283.1	235.8	203.8	181.9	171.8	163.5
57.5°	266.9	312.5	325.2	327.4	303.7	255.9	210.8	182.8	163.0	154.7	148.1
60°	228.3	266.5	283.1	287.9	267.3	224.4	187.6	160.4	145.5	137.6	131.5
62.5°	196.8	227.5	245.0	246.3	237.1	196.8	163.5	140.7	128.0	121.0	117.9
65°	166.1	193.7	204.2	209.5	202.0	170.5	141.1	122.3	112.2	106.1	103.0
67.5°	141.6	159.1	167.9	174.9	167.4	143.8	120.1	104.7	97.3	91.2	89.4
70°	116.1	130.6	137.2	144.2	137.6	119.6	102.6	88.5	82.0	77.1	74.9
72.5°	92.9	104.3	110.4	114.8	110.9	96.0	82.0	72.3	67.5	64.0	62.7
75°	73.6	81.5	85.0	88.1	86.3	74.9	66.2	58.3	53.9	50.8	50.0
77.5°	56.1	61.8	65.7	66.6	64.4	57.0	49.5	44.7	41.2	39.4	38.6
80°	39.9	43.4	45.6	46.9	44.7	41.6	36.4	32.9	29.8	27.6	27.2
82.5°	26.7	28.5	30.2	29.8	28.9	26.3	23.2	21.5	20.2	18.4	18.4
85°	15.3	15.8	16.7	17.1	16.7	14.9	13.1	12.3	11.4	10.1	10.1
87.5°	6.6	7.0	7.0	7.5	6.6	6.6	5.7	4.8	4.8	4.4	3.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P997564

CATALOG NUMBER: SA2XXDP-B290DB27-4F0-XX-W2A-A

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2
2.5°	564.0	566.2	565.8	561.4	556.6	552.7	545.2	546.1	543.4	543.9	546.5
5°	550.0	550.0	548.3	542.1	534.2	529.9	521.5	519.3	514.1	513.6	513.2
7.5°	535.1	532.9	530.7	522.0	512.3	505.3	493.9	491.3	486.0	482.5	480.8
10°	517.6	514.5	510.1	500.1	488.2	479.5	467.6	464.1	454.0	449.7	447.0
12.5°	498.3	496.6	489.5	481.2	461.9	452.3	435.2	438.7	428.6	419.9	418.5
15°	479.0	472.5	468.5	454.9	431.7	427.3	413.7	406.7	397.5	390.5	390.5
17.5°	460.2	450.1	441.3	426.9	409.8	397.5	387.4	383.9	372.5	365.5	364.2
20°	435.2	423.8	421.6	401.0	389.2	375.6	366.0	357.2	348.9	345.8	343.6
22.5°	411.5	398.4	394.9	377.3	365.5	351.9	342.3	336.2	330.0	327.8	323.9
25°	386.1	378.2	373.0	354.1	341.0	328.3	321.7	317.3	311.6	311.2	308.5
27.5°	361.6	354.1	348.9	330.9	321.2	309.4	304.2	299.3	296.3	295.0	293.6
30°	340.5	332.2	326.1	312.9	301.1	291.4	287.1	284.0	282.2	280.1	279.6
32.5°	317.3	312.5	304.2	294.1	284.9	275.7	273.0	270.8	268.2	267.3	266.9
35°	297.6	291.0	285.7	274.4	270.4	262.5	259.5	257.7	254.2	253.3	252.4
37.5°	278.3	272.2	266.5	259.5	252.0	247.6	245.9	243.2	241.5	241.9	241.0
40°	259.0	254.2	249.8	242.4	238.0	235.8	232.3	229.7	228.8	229.2	228.8
42.5°	240.2	235.8	233.2	227.5	223.1	220.9	218.7	216.1	217.4	217.4	218.7
45°	223.1	219.1	217.4	213.0	210.4	206.9	204.7	204.2	206.0	205.5	205.5
47.5°	205.5	204.2	202.0	198.1	194.6	192.4	192.0	192.0	193.7	194.6	194.2
50°	192.0	189.3	186.7	183.6	181.0	180.1	178.8	179.7	181.4	181.4	182.3
52.5°	174.9	173.1	172.2	169.6	167.9	167.9	167.9	168.3	169.6	170.9	170.5
55°	160.0	158.7	157.8	156.5	154.3	154.7	154.3	155.1	156.5	157.8	158.7
57.5°	144.2	143.8	142.9	140.7	140.7	140.2	141.6	142.0	144.2	145.1	146.4
60°	130.2	128.9	128.9	127.1	127.1	127.1	128.4	129.7	131.5	131.9	132.8
62.5°	115.3	115.3	114.8	113.5	113.5	114.8	115.3	117.0	117.9	117.9	119.2
65°	101.2	100.8	100.4	100.8	101.2	101.2	102.6	103.4	104.3	104.7	105.2
67.5°	87.2	86.8	87.7	87.2	88.1	89.8	89.4	90.7	92.0	92.0	92.5
70°	74.1	74.9	74.5	75.4	74.9	75.8	77.1	77.6	77.6	78.0	79.3
72.5°	61.8	61.8	61.8	61.4	61.8	62.7	63.5	64.0	64.9	65.3	66.6
75°	50.0	50.0	49.1	50.0	50.0	50.8	51.7	51.7	51.7	52.6	53.9
77.5°	37.7	38.1	37.7	38.6	38.6	39.0	39.9	39.4	40.3	40.8	41.2
80°	27.6	27.2	27.2	27.2	27.6	27.6	28.5	28.9	28.9	30.2	29.4
82.5°	17.5	18.0	17.5	18.0	18.0	18.4	18.0	18.4	18.8	19.7	19.3
85°	10.1	9.6	9.6	10.1	9.6	9.6	10.1	9.6	10.1	9.6	10.1
87.5°	3.9	3.5	3.5	3.5	3.5	3.1	3.1	2.6	2.6	2.6	2.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P997564

CATALOG NUMBER: SA2XXDP-B290DB27-4F0-XX-W2A-A

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2
2.5°	543.4	544.8	541.7	540.8	541.7	538.6	539.5	540.4	540.4	541.7	542.6
5°	511.9	510.1	507.1	506.2	505.3	506.6	505.8	507.1	507.5	510.6	511.0
7.5°	480.8	478.1	475.5	472.9	472.0	469.8	472.0	472.0	475.1	474.2	476.4
10°	444.0	443.5	440.0	438.7	437.0	433.4	438.3	437.0	439.1	443.1	444.0
12.5°	416.8	412.0	414.2	408.0	410.2	406.7	407.1	407.1	410.7	411.1	410.2
15°	390.9	387.0	381.3	378.7	377.3	375.6	381.3	381.7	379.1	385.2	383.0
17.5°	364.6	364.6	359.4	358.1	354.6	356.3	355.4	355.9	355.0	359.4	361.6
20°	341.8	339.7	337.9	338.3	334.0	333.1	332.2	333.1	336.2	339.2	340.1
22.5°	323.4	322.1	317.7	318.6	315.1	316.4	315.6	317.7	318.2	318.2	321.2
25°	305.9	304.2	304.6	302.8	301.5	301.5	300.2	301.5	303.3	304.2	304.6
27.5°	292.8	291.4	289.3	287.9	288.8	286.6	288.4	289.7	289.7	288.8	289.7
30°	277.0	277.9	277.9	273.5	275.2	274.4	275.7	276.5	276.5	277.0	276.1
32.5°	266.5	263.8	263.4	263.0	263.0	261.2	261.2	262.5	263.0	263.4	264.7
35°	252.4	252.4	250.2	251.6	249.8	250.2	249.8	250.2	251.1	249.8	251.1
37.5°	239.7	240.2	239.3	240.2	240.6	239.7	238.9	240.6	239.7	239.7	238.9
40°	228.8	228.3	228.8	228.8	228.8	229.2	228.3	228.3	228.3	227.5	226.6
42.5°	219.6	216.9	217.8	218.3	216.9	216.9	217.4	216.9	218.3	215.6	215.6
45°	206.4	205.5	206.0	206.0	206.9	205.5	206.4	206.9	205.5	205.1	204.2
47.5°	194.6	195.5	194.6	195.5	195.5	196.3	194.6	195.0	195.5	193.7	192.4
50°	182.8	182.8	184.1	183.6	184.1	183.2	183.2	182.8	183.2	182.3	181.0
52.5°	171.8	170.5	172.7	172.2	171.8	171.4	170.9	171.4	170.5	169.6	169.6
55°	158.2	158.2	159.5	160.0	160.0	159.1	158.2	158.7	158.2	157.8	157.3
57.5°	147.3	145.5	146.4	146.8	146.8	145.5	146.4	145.5	145.5	145.9	144.6
60°	133.2	133.2	132.4	133.7	133.7	132.8	132.8	133.2	132.4	131.9	131.5
62.5°	118.3	118.8	120.1	120.5	121.0	120.1	119.2	119.6	119.6	118.3	118.8
65°	105.6	106.5	108.3	107.8	106.9	107.4	106.5	106.9	105.6	106.1	104.7
67.5°	93.4	92.9	93.4	93.4	94.2	93.8	92.9	92.9	92.5	93.8	92.5
70°	80.2	80.2	80.2	80.2	80.6	81.1	80.2	79.3	79.8	78.9	78.4
72.5°	66.6	67.1	66.6	67.5	66.2	67.1	67.1	66.6	66.2	66.2	66.2
75°	53.9	54.8	53.5	53.9	53.5	54.3	53.9	53.9	53.0	52.6	53.0
77.5°	41.2	41.6	40.8	41.2	40.8	41.2	41.2	40.8	40.8	40.8	40.8
80°	29.4	29.8	29.4	28.9	28.5	29.4	28.5	28.9	29.4	28.9	29.8
82.5°	18.8	18.8	18.4	18.8	18.0	18.0	18.4	18.4	18.0	18.8	18.0
85°	9.2	9.2	10.1	9.2	8.8	8.8	8.8	9.2	8.8	9.6	9.2
87.5°	2.2	1.8	2.2	2.2	1.8	1.8	2.2	1.8	2.2	2.6	1.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P997564

CATALOG NUMBER: SA2XXDP-B290DB27-4F0-XX-W2A-A

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2
2.5°	541.3	544.8	543.4	538.6	544.3	544.3	548.3	548.3	553.1	554.8	557.5
5°	510.6	513.2	515.4	513.2	517.2	523.3	526.8	529.9	536.4	539.1	543.0
7.5°	477.7	482.5	484.7	484.7	491.3	498.3	505.3	509.7	518.9	522.4	526.4
10°	445.7	451.4	455.8	455.4	466.3	470.7	479.5	489.5	498.7	504.0	509.7
12.5°	412.0	415.0	421.2	429.9	432.6	440.5	450.5	463.2	479.9	484.7	493.0
15°	383.9	392.2	397.1	401.0	407.1	414.6	425.6	437.8	454.5	465.0	473.8
17.5°	360.3	371.2	374.3	373.4	381.3	392.7	405.4	414.6	429.5	442.2	450.5
20°	341.0	345.4	350.6	352.8	358.9	371.2	383.5	394.0	406.3	416.4	426.0
22.5°	321.7	325.2	329.6	333.5	338.3	345.4	357.2	370.3	382.2	391.8	402.8
25°	305.9	308.1	312.0	315.1	320.4	325.2	333.5	348.0	362.0	367.7	377.3
27.5°	290.6	292.3	295.0	298.5	301.1	305.9	313.4	325.2	339.7	345.4	358.5
30°	277.0	278.3	280.9	282.7	284.0	289.7	295.4	304.6	315.6	323.4	333.1
32.5°	264.3	265.6	268.2	268.7	270.4	273.5	278.7	287.1	296.7	303.3	311.6
35°	250.2	251.1	253.8	254.6	255.9	258.6	262.5	268.7	277.4	282.2	289.7
37.5°	239.3	238.9	240.6	241.9	243.7	245.0	246.3	252.4	259.0	263.4	269.1
40°	227.5	226.6	227.0	228.8	229.7	231.4	231.4	237.5	241.9	245.4	249.8
42.5°	215.6	215.2	214.3	215.2	216.1	216.5	216.9	221.3	225.7	228.8	233.6
45°	203.8	203.4	202.5	202.9	202.9	203.8	205.1	206.9	209.9	212.6	215.2
47.5°	192.8	192.0	190.6	190.2	191.1	191.1	191.1	192.8	195.9	196.8	199.4
50°	181.4	180.1	178.4	177.5	177.5	177.1	177.9	178.4	181.0	181.9	184.1
52.5°	169.2	168.3	166.5	164.8	165.2	164.3	164.8	165.2	166.1	167.4	168.7
55°	156.9	155.1	153.8	153.4	152.1	152.1	150.8	152.5	152.1	152.5	154.3
57.5°	145.1	143.3	141.1	140.2	138.9	138.5	137.6	137.2	137.6	138.9	140.2
60°	131.0	130.2	128.9	127.5	126.7	125.3	124.5	124.5	124.0	124.0	124.5
62.5°	117.5	117.0	115.3	114.8	113.9	113.1	111.8	110.9	110.9	111.8	112.2
65°	104.3	103.9	102.6	102.1	99.9	99.0	98.6	98.2	97.3	97.3	97.3
67.5°	92.0	90.7	90.7	88.5	86.8	85.9	85.0	84.6	84.6	84.6	85.0
70°	78.4	78.4	77.1	75.8	74.1	74.5	73.2	71.9	71.9	71.0	71.4
72.5°	65.3	64.9	63.5	63.1	61.8	60.5	59.6	60.5	59.2	58.7	59.2
75°	52.6	52.2	51.3	50.4	50.8	49.5	48.2	47.8	47.8	46.9	46.9
77.5°	40.3	41.2	39.4	39.0	38.1	37.3	36.8	36.4	36.4	36.4	37.3
80°	28.0	28.5	28.5	27.6	28.0	26.7	26.7	26.7	25.4	25.9	26.3
82.5°	18.0	18.0	17.5	18.0	17.5	17.5	17.1	17.1	16.7	16.7	17.1
85°	10.1	9.6	9.2	10.1	9.6	9.6	9.2	9.2	9.2	9.2	9.2
87.5°	2.2	2.6	2.6	2.6	2.6	3.1	3.1	3.1	3.5	3.5	3.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P997564

CATALOG NUMBER: SA2XXDP-B290DB27-4F0-XX-W2A-A

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	570.2	570.2	570.2	570.2
2.5°	559.7	559.7	566.2	573.3
5°	547.4	550.5	561.0	570.6
7.5°	535.6	540.8	554.0	566.2
10°	521.1	528.1	544.3	558.8
12.5°	507.1	513.6	532.5	548.7
15°	487.4	495.7	515.8	536.0
17.5°	467.6	476.0	500.5	524.2
20°	444.4	455.4	483.0	514.5
22.5°	422.9	436.5	467.2	492.6
25°	399.3	420.3	448.8	481.7
27.5°	378.2	399.3	428.2	461.5
30°	354.6	376.0	405.8	436.5
32.5°	331.8	351.5	380.4	418.1
35°	308.1	326.9	355.0	393.1
37.5°	286.6	305.0	335.7	370.8
40°	265.6	284.9	311.2	346.2
42.5°	245.9	263.0	286.6	321.7
45°	227.9	240.2	262.1	295.0
47.5°	209.1	220.0	240.2	273.0
50°	191.5	200.7	218.3	248.9
52.5°	174.4	182.3	198.5	223.1
55°	159.1	166.5	178.4	202.5
57.5°	143.3	149.0	160.4	179.7
60°	128.0	133.2	142.4	158.2
62.5°	112.6	117.0	125.8	138.5
65°	99.0	102.6	109.1	120.1
67.5°	85.9	88.1	93.4	102.1
70°	73.2	74.9	79.3	86.3
72.5°	59.6	61.4	66.2	71.0
75°	48.2	48.6	52.2	56.1
77.5°	37.7	37.3	39.9	43.0
80°	25.9	27.2	29.4	30.7
82.5°	17.5	18.0	18.8	19.7
85°	9.6	10.1	10.1	11.4
87.5°	3.9	4.4	4.4	4.8
90°	0.0	0.0	0.0	0.0

TEST NUMBER: P997564

CATALOG NUMBER: SA2XXDP-B290DB27-4F0-XX-W2A-A

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	19.61	21.13	19.98	21.44	21.76	15.88	17.40	16.25	17.71	18.03
	3H	20.73	22.09	21.11	22.42	22.78	17.30	18.66	17.67	18.98	19.35
	4H	21.05	22.33	21.45	22.68	23.06	17.80	19.08	18.20	19.43	19.81
	6H	21.24	22.42	21.66	22.79	23.18	18.16	19.34	18.57	19.71	20.10
	8H	21.28	22.41	21.71	22.80	23.20	18.27	19.39	18.70	19.78	20.18
	12H	21.30	22.37	21.73	22.76	23.18	18.35	19.42	18.78	19.80	20.23
4H	2H	19.73	21.01	20.13	21.36	21.74	16.68	17.96	17.08	18.30	18.68
	3H	21.07	22.13	21.48	22.53	22.93	18.26	19.32	18.67	19.72	20.12
	4H	21.54	22.49	21.97	22.91	23.35	18.85	19.81	19.29	20.22	20.66
	6H	21.87	22.70	22.33	23.14	23.60	19.31	20.14	19.77	20.58	21.04
	8H	21.95	22.72	22.41	23.16	23.63	19.45	20.23	19.91	20.67	21.14
	12H	21.99	22.68	22.47	23.16	23.63	19.56	20.25	20.04	20.73	21.20
8H	4H	21.62	22.40	22.09	22.84	23.31	19.26	20.04	19.73	20.48	20.95
	6H	22.03	22.67	22.53	23.16	23.64	19.81	20.45	20.30	20.94	21.41
	8H	22.16	22.73	22.67	23.24	23.73	20.00	20.58	20.52	21.09	21.58
	12H	22.25	22.76	22.76	23.25	23.81	20.17	20.67	20.68	21.17	21.73
12H	4H	21.61	22.31	22.10	22.79	23.26	19.32	20.01	19.80	20.49	20.96
	6H	22.02	22.60	22.54	23.11	23.60	19.88	20.46	20.39	20.97	21.45
	8H	22.19	22.70	22.70	23.19	23.76	20.13	20.64	20.64	21.13	21.69

END OF REPORT