

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: P997588

Luminaire Tested: SA2XXDP-B290DB40-4F0-XX-W2A-A

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997588
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-B290DB40-4F0-XX-W2A-A
Description: Define 2 Direct Recessed with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

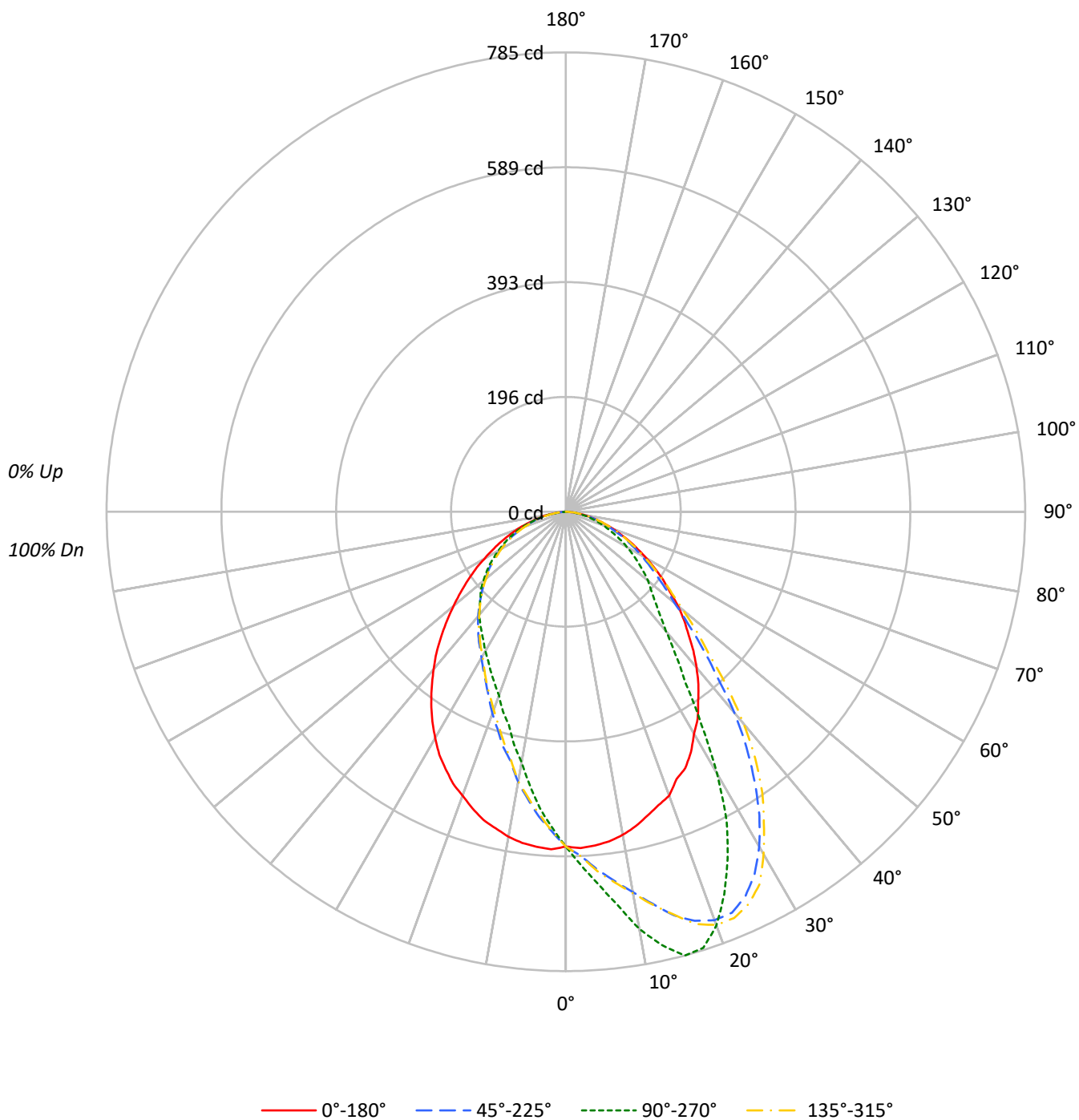
Lumens per Lamp: N/A
Luminaire Lumens: 1262.0 lumens
Efficiency: N/A
Efficacy: 97.1 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.09 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

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

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Luminous Intensity Polar Plot



TEST NUMBER: P997588

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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
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°	9054	9054	9054	9054
5°	9095	10150	9130	8075
10°	9011	11632	9067	6989
15°	8812	12868	8935	6175
20°	8695	12673	8695	5628
25°	8439	11426	8478	5283
30°	8004	9442	8158	5030
35°	7621	6881	7749	4850
40°	7176	5497	7259	4751
45°	6624	4804	6731	4616
50°	6149	4514	6161	4526
55°	5605	4162	5641	4405
60°	5024	3815	5094	4217
65°	4513	3476	4596	4034
70°	4008	3152	4110	3763
75°	3443	2795	3578	3333
80°	2808	2407	3008	2689
85°	2070	2161	2234	1598

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 155°

Vertical Angle: 45°

Luminance: 11820 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.5	4.3
10°-20°	158.6	12.6
20°-30°	230.1	18.2
30°-40°	242.6	19.2
40°-50°	214.7	17.0
50°-60°	171.4	13.6
60°-70°	116.4	9.2
70°-80°	59.6	4.7
80°-90°	14.1	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°	443.2	35.1
0°-40°	685.8	54.3
0°-60°	1071.9	84.9
0°-90°	1262.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1262.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	572	572	572	572	572	
5°	572	639	575	508	572	54
15°	538	785	545	377	538	152
25°	483	654	485	302	483	221
35°	394	356	401	251	394	247
45°	296	215	301	206	296	230
55°	203	151	204	160	203	181
65°	120	93	123	108	120	120
75°	56	46	58	54	56	60
85°	11	12	12	9	11	14
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
2.5°	575.1	576.4	578.6	579.0	583.4	586.9	590.9	590.9	592.2	591.8	588.3
5°	572.4	576.4	582.1	586.9	594.9	598.4	603.7	607.6	611.1	613.8	613.3
7.5°	568.0	575.1	583.4	592.7	603.2	609.4	616.8	623.9	628.7	633.1	636.2
10°	560.6	572.4	583.9	596.2	609.8	618.2	627.0	636.2	643.7	652.0	659.9
12.5°	550.5	567.6	581.7	597.9	614.6	623.9	637.9	645.0	659.5	680.6	686.3
15°	537.7	561.0	574.2	594.9	616.8	624.3	643.7	655.1	685.0	698.2	714.0
17.5°	525.8	551.8	569.4	593.1	614.6	629.2	648.1	671.4	696.4	715.3	732.9
20°	516.2	541.2	562.3	588.7	616.0	634.4	654.2	682.4	709.6	729.0	742.6
22.5°	494.2	526.3	550.9	580.4	613.3	638.8	657.7	688.5	718.0	729.8	741.7
25°	483.2	510.9	539.5	572.9	611.6	641.9	658.2	692.5	718.4	722.8	725.4
27.5°	463.0	494.2	527.6	565.8	611.1	636.6	657.3	688.5	709.2	706.1	698.2
30°	437.9	476.2	513.1	554.4	605.0	632.7	652.0	680.6	691.1	675.3	661.2
32.5°	419.4	455.5	496.4	544.3	597.9	624.3	643.2	665.6	667.8	639.3	615.5
35°	394.4	434.4	480.5	531.1	586.1	609.8	627.4	641.0	630.5	590.5	562.3
37.5°	372.0	411.5	460.8	512.2	569.8	593.1	607.2	609.4	583.4	548.3	506.9
40°	347.3	388.2	439.7	493.7	551.8	572.0	580.8	574.2	536.8	495.9	448.0
42.5°	322.7	363.2	418.6	474.0	528.9	546.1	549.6	531.5	485.8	437.9	382.5
45°	295.9	338.1	393.5	449.3	502.5	512.2	512.6	486.7	432.6	382.5	331.1
47.5°	273.9	313.0	368.0	423.8	468.7	475.3	472.6	442.7	383.8	327.5	282.7
50°	249.7	287.1	341.6	396.6	434.8	436.6	430.0	387.3	329.7	278.3	242.7
52.5°	223.8	261.6	311.7	364.5	398.8	396.1	383.4	337.7	283.6	240.9	213.7
55°	203.1	236.5	283.6	335.0	359.2	351.7	337.7	291.1	248.4	212.4	188.6
57.5°	180.3	209.7	255.9	300.7	314.8	307.8	293.7	250.2	210.6	183.3	167.5
60°	158.7	185.5	226.0	263.4	274.3	266.9	250.6	211.5	182.9	160.0	148.2
62.5°	138.9	162.2	196.1	230.4	234.8	227.3	213.2	181.6	157.0	138.9	130.1
65°	120.5	142.4	169.7	195.6	199.6	191.7	177.2	154.3	133.7	122.2	113.9
67.5°	102.4	120.0	144.2	163.1	165.3	157.8	146.0	127.5	114.8	102.4	96.3
70°	86.6	99.8	118.7	134.1	135.0	127.9	121.8	105.1	95.4	86.6	81.8
72.5°	71.2	80.5	95.0	106.4	106.8	102.4	96.7	86.2	77.8	71.7	66.8
75°	56.3	64.2	73.0	83.1	82.7	79.1	74.7	68.1	61.1	57.2	55.0
77.5°	43.1	47.9	55.0	61.6	61.6	59.8	57.2	52.3	47.9	44.0	41.8
80°	30.8	33.9	39.6	41.8	42.6	42.2	40.0	36.5	34.7	31.7	30.8
82.5°	19.8	22.0	24.6	26.8	28.1	27.3	26.8	25.1	22.4	21.5	20.7
85°	11.4	12.3	13.6	14.9	15.4	14.9	15.8	14.5	13.2	13.2	12.8
87.5°	4.8	5.3	6.2	6.2	6.6	6.6	6.2	6.6	6.6	6.2	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

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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
2.5°	594.4	594.9	595.7	600.1	602.3	602.8	601.0	605.0	606.3	605.0	604.1
5°	622.6	625.2	630.5	636.2	635.7	636.2	638.8	641.5	642.3	638.8	640.1
7.5°	647.2	652.5	658.2	667.0	667.0	671.4	673.1	675.3	680.6	678.0	677.1
10°	675.3	682.4	692.9	707.0	707.4	711.8	716.2	723.2	725.4	723.7	724.6
12.5°	710.5	724.1	725.0	740.4	747.4	748.3	755.3	754.0	758.4	758.4	765.9
15°	725.9	747.0	758.9	773.8	778.2	772.9	778.6	784.8	785.2	785.2	784.8
17.5°	753.6	761.9	773.8	781.7	783.5	783.5	783.9	786.6	784.8	781.3	783.9
20°	759.3	762.8	767.2	766.3	767.2	762.8	758.4	754.0	754.5	752.3	758.9
22.5°	748.7	747.9	737.7	731.2	731.2	722.4	714.0	710.1	706.1	707.4	709.6
25°	722.4	708.7	696.4	686.7	684.6	670.5	659.0	655.5	648.9	654.2	655.1
27.5°	680.2	664.8	645.0	636.6	625.2	619.5	611.6	601.0	587.4	595.3	594.0
30°	634.9	612.0	595.7	575.5	557.5	556.2	541.2	523.6	516.6	516.6	520.6
32.5°	584.3	554.0	530.2	501.7	484.1	476.6	458.6	441.0	444.9	431.7	436.6
35°	525.4	485.4	455.5	427.8	414.6	405.8	382.5	372.8	362.3	356.1	367.6
37.5°	469.1	423.0	384.7	354.4	349.5	333.7	317.9	311.7	305.6	308.2	307.8
40°	400.5	359.6	325.3	301.6	293.3	285.8	275.2	267.8	263.8	266.0	266.4
42.5°	338.5	304.2	278.7	262.0	255.0	249.7	244.5	238.3	237.0	237.0	238.7
45°	290.6	262.5	245.3	231.7	227.7	223.8	219.8	217.2	216.3	214.6	215.9
47.5°	252.4	229.9	219.4	209.3	204.9	204.0	200.5	199.2	197.4	197.0	197.4
50°	220.3	206.2	196.5	190.8	187.7	186.4	184.7	182.0	181.1	183.3	182.5
52.5°	197.8	184.7	179.4	173.7	171.9	170.1	167.5	167.9	167.5	166.6	166.6
55°	175.4	167.1	161.8	157.4	157.0	155.2	153.0	152.1	151.7	150.8	152.1
57.5°	157.4	150.8	146.0	142.0	140.3	140.3	138.1	136.3	136.3	135.9	136.3
60°	139.4	132.8	129.7	125.7	124.4	124.0	122.7	121.8	120.5	120.5	120.5
62.5°	122.7	117.4	113.9	110.4	110.8	108.6	106.8	106.0	106.0	106.4	106.4
65°	106.8	103.3	98.9	95.8	95.0	94.5	93.6	93.2	91.9	92.8	92.8
67.5°	92.3	87.5	84.9	83.5	82.2	81.8	80.9	80.0	79.6	79.1	80.0
70°	77.8	73.9	71.7	70.8	69.5	69.0	68.6	67.3	67.7	68.1	68.6
72.5°	64.6	61.1	60.7	58.0	58.0	58.0	56.3	57.2	56.7	55.8	56.7
75°	51.0	49.2	48.4	47.0	47.5	47.0	46.6	45.3	45.3	45.7	46.2
77.5°	40.4	38.7	38.3	36.9	36.1	36.9	36.1	35.6	35.6	36.1	36.1
80°	29.9	29.0	27.7	27.7	27.7	27.3	27.3	27.3	26.8	26.4	26.8
82.5°	19.8	19.8	19.3	18.9	19.3	18.5	18.9	18.9	18.9	18.9	18.9
85°	12.8	12.3	12.3	11.9	11.9	11.9	12.3	11.4	11.4	11.9	11.9
87.5°	5.7	5.7	5.7	6.2	5.7	5.7	5.7	6.2	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

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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
2.5°	606.3	603.2	600.6	601.0	603.2	601.5	597.1	591.3	589.1	586.5	589.1
5°	642.8	640.1	634.9	635.3	634.0	632.2	625.2	616.4	616.4	609.4	608.5
7.5°	678.8	674.9	671.4	670.5	665.6	662.1	656.0	643.7	638.8	630.5	625.6
10°	719.3	716.2	712.2	707.4	704.8	698.6	688.5	670.5	661.7	650.3	641.9
12.5°	760.2	759.7	750.9	741.3	740.8	731.2	724.1	699.9	688.1	672.7	652.9
15°	786.1	783.9	779.1	774.2	775.6	765.0	749.2	720.6	712.7	694.2	673.1
17.5°	785.7	785.7	784.4	783.5	782.2	779.1	770.3	751.4	738.6	715.3	695.5
20°	760.6	766.3	767.6	767.2	771.6	773.8	773.4	761.5	751.4	730.7	710.5
22.5°	710.5	723.7	729.4	732.9	742.1	747.0	758.4	754.0	751.4	736.0	718.8
25°	663.9	668.3	685.4	686.3	699.1	710.9	722.4	729.8	739.5	733.8	719.3
27.5°	603.7	613.8	626.1	635.3	637.9	662.1	681.0	695.1	717.1	718.8	714.0
30°	535.5	540.3	560.6	572.9	586.9	604.5	631.8	656.0	675.8	693.8	699.9
32.5°	452.4	472.2	484.1	499.0	511.3	542.5	576.0	607.2	630.0	660.4	673.6
35°	376.3	391.7	412.0	418.1	440.5	466.9	510.4	550.5	585.2	616.0	642.8
37.5°	313.5	325.8	347.3	357.0	370.2	404.0	440.5	490.2	532.0	569.8	603.2
40°	270.4	279.6	295.9	299.0	310.0	340.7	370.2	416.8	472.2	523.2	559.7
42.5°	240.9	245.3	256.3	260.3	267.3	288.0	314.4	358.3	409.8	462.5	514.0
45°	219.8	222.9	229.5	233.0	241.8	251.0	272.6	307.8	348.2	401.4	456.8
47.5°	200.9	204.9	207.5	209.7	214.6	224.7	238.7	264.7	303.4	352.2	405.8
50°	185.1	186.4	191.3	191.7	194.8	201.4	214.6	230.4	261.2	300.7	352.6
52.5°	169.3	170.6	173.7	176.7	178.1	183.3	192.1	205.3	228.2	259.4	305.6
55°	153.4	155.2	158.3	160.5	161.8	166.2	171.5	184.2	202.2	224.2	262.0
57.5°	137.6	141.6	142.4	143.8	146.0	150.8	155.6	163.1	177.2	197.4	225.1
60°	122.7	124.0	127.1	128.4	130.6	133.2	139.4	145.1	155.2	171.0	196.1
62.5°	107.3	110.4	111.7	113.0	114.8	117.8	121.8	127.9	136.7	149.5	169.3
65°	94.1	94.5	97.2	98.9	100.7	102.9	106.8	112.6	117.8	129.7	144.2
67.5°	81.3	82.2	83.1	84.9	87.1	89.3	92.8	95.8	102.4	110.4	121.8
70°	69.0	69.0	71.2	72.5	72.1	74.7	77.4	80.9	85.7	93.2	102.4
72.5°	58.0	57.6	59.4	59.8	60.7	62.4	64.2	67.7	70.3	76.1	83.1
75°	46.2	47.0	47.9	47.9	49.2	50.6	52.3	54.1	57.2	60.7	65.9
77.5°	36.5	36.5	37.4	37.8	39.1	38.7	40.4	42.2	44.4	47.5	51.4
80°	26.8	27.7	27.7	27.7	28.1	28.6	30.3	31.7	33.0	35.2	36.9
82.5°	18.9	18.9	19.8	19.8	19.8	20.7	20.7	21.1	22.0	23.3	24.6
85°	11.9	11.9	11.9	12.3	11.9	12.3	13.2	12.8	13.2	14.1	14.1
87.5°	5.7	5.7	5.7	5.7	5.7	6.2	5.7	6.2	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

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CATALOG NUMBER: SA2XXDP-B290DB40-4F0-XX-W2A-A

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
2.5°	586.9	584.7	583.4	584.3	581.7	575.1	575.1	577.3	574.6	572.0	568.0
5°	603.2	598.8	596.2	595.7	589.6	579.0	576.8	574.6	568.9	562.8	556.2
7.5°	619.0	611.1	606.7	603.7	594.9	581.2	575.5	570.7	561.4	552.2	543.9
10°	632.2	620.8	615.5	610.7	599.3	582.1	572.9	564.1	552.2	540.3	529.8
12.5°	642.8	629.6	623.0	616.0	601.9	579.5	568.0	554.0	542.1	526.3	515.7
15°	660.4	633.1	627.0	620.4	605.9	575.1	561.0	545.2	528.9	507.8	496.4
17.5°	674.4	637.9	637.5	623.4	604.5	573.3	551.8	531.1	513.5	492.4	474.4
20°	682.8	645.4	638.4	623.9	600.1	561.4	539.0	516.2	497.3	471.8	453.7
22.5°	689.8	656.0	637.5	619.9	590.9	557.5	524.5	503.0	477.0	449.3	432.2
25°	692.5	658.2	638.8	618.6	584.3	546.1	508.7	485.4	456.4	431.3	408.0
27.5°	692.9	657.7	634.0	612.9	575.1	531.1	492.9	468.2	436.1	407.1	383.8
30°	688.5	652.9	631.4	608.5	566.3	517.5	473.5	446.3	412.0	382.9	358.8
32.5°	675.3	643.2	625.6	600.6	554.9	498.6	455.0	424.7	388.7	360.1	336.8
35°	653.3	631.4	612.0	588.7	539.9	481.0	436.6	401.0	364.5	337.2	315.2
37.5°	626.1	614.2	596.2	573.3	522.8	465.2	415.9	376.3	339.9	313.5	291.9
40°	589.1	592.2	574.6	554.0	502.5	443.6	389.1	351.3	317.0	292.4	271.3
42.5°	549.1	561.9	551.8	532.0	480.1	419.9	369.3	327.5	294.1	268.6	251.0
45°	506.0	528.0	521.9	507.4	456.8	394.8	341.2	300.7	271.3	246.6	231.3
47.5°	459.0	490.2	490.2	479.7	430.9	369.8	317.0	275.7	246.6	229.1	214.1
50°	411.1	446.3	452.0	444.9	401.8	341.2	287.5	250.2	225.1	208.0	197.0
52.5°	361.0	401.8	412.4	408.9	371.1	313.9	263.4	226.9	204.0	189.1	179.4
55°	313.0	360.5	372.0	373.3	338.1	284.0	236.5	204.4	182.5	172.3	164.0
57.5°	267.8	313.5	326.2	328.4	304.7	256.8	211.5	183.3	163.6	155.2	148.6
60°	229.1	267.3	284.0	288.9	268.2	225.1	188.2	160.9	146.0	138.1	131.9
62.5°	197.4	228.2	245.8	247.1	237.9	197.4	164.0	141.1	128.4	121.3	118.3
65°	166.6	194.3	204.9	210.2	202.7	171.0	141.6	122.7	112.6	106.4	103.3
67.5°	142.0	159.6	168.4	175.4	167.9	144.2	120.5	105.1	97.6	91.4	89.7
70°	116.5	131.0	137.6	144.6	138.1	120.0	102.9	88.8	82.2	77.4	75.2
72.5°	93.2	104.6	110.8	115.2	111.2	96.3	82.2	72.5	67.7	64.2	62.9
75°	73.9	81.8	85.3	88.4	86.6	75.2	66.4	58.5	54.1	51.0	50.1
77.5°	56.3	62.0	65.9	66.8	64.6	57.2	49.7	44.8	41.3	39.6	38.7
80°	40.0	43.5	45.7	47.0	44.8	41.8	36.5	33.0	29.9	27.7	27.3
82.5°	26.8	28.6	30.3	29.9	29.0	26.4	23.3	21.5	20.2	18.5	18.5
85°	15.4	15.8	16.7	17.1	16.7	14.9	13.2	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	4.0
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: P997588

CATALOG NUMBER: SA2XXDP-B290DB40-4F0-XX-W2A-A

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
2.5°	565.8	568.0	567.6	563.2	558.4	554.4	546.9	547.8	545.2	545.6	548.3
5°	551.8	551.8	550.0	543.9	535.9	531.5	523.2	521.0	515.7	515.3	514.8
7.5°	536.8	534.6	532.4	523.6	514.0	506.9	495.5	492.9	487.6	484.1	482.3
10°	519.2	516.2	511.8	501.7	489.8	481.0	469.1	465.6	455.5	451.1	448.5
12.5°	499.9	498.1	491.1	482.7	463.4	453.7	436.6	440.1	430.0	421.2	419.9
15°	480.5	474.0	470.0	456.4	433.1	428.7	415.0	408.0	398.8	391.7	391.7
17.5°	461.6	451.5	442.7	428.2	411.1	398.8	388.7	385.1	373.7	366.7	365.4
20°	436.6	425.2	423.0	402.3	390.4	376.8	367.1	358.3	350.0	346.9	344.7
22.5°	412.8	399.7	396.1	378.5	366.7	353.0	343.4	337.2	331.1	328.9	324.9
25°	387.3	379.4	374.2	355.2	342.1	329.3	322.7	318.3	312.6	312.2	309.5
27.5°	362.7	355.2	350.0	331.9	322.3	310.4	305.1	300.3	297.2	295.9	294.6
30°	341.6	333.3	327.1	313.9	302.0	292.4	288.0	284.9	283.1	280.9	280.5
32.5°	318.3	313.5	305.1	295.0	285.8	276.5	273.9	271.7	269.1	268.2	267.8
35°	298.5	291.9	286.7	275.2	271.3	263.4	260.3	258.5	255.0	254.1	253.2
37.5°	279.2	273.0	267.3	260.3	252.8	248.4	246.6	244.0	242.3	242.7	241.8
40°	259.8	255.0	250.6	243.1	238.7	236.5	233.0	230.4	229.5	229.9	229.5
42.5°	240.9	236.5	233.9	228.2	223.8	221.6	219.4	216.8	218.1	218.1	219.4
45°	223.8	219.8	218.1	213.7	211.0	207.5	205.3	204.9	206.6	206.2	206.2
47.5°	206.2	204.9	202.7	198.7	195.2	193.0	192.6	192.6	194.3	195.2	194.8
50°	192.6	189.9	187.3	184.2	181.6	180.7	179.4	180.3	182.0	182.0	182.9
52.5°	175.4	173.7	172.8	170.1	168.4	168.4	168.4	168.8	170.1	171.5	171.0
55°	160.5	159.2	158.3	157.0	154.8	155.2	154.8	155.6	157.0	158.3	159.2
57.5°	144.6	144.2	143.3	141.1	141.1	140.7	142.0	142.4	144.6	145.5	146.8
60°	130.6	129.3	129.3	127.5	127.5	127.5	128.8	130.1	131.9	132.3	133.2
62.5°	115.6	115.6	115.2	113.9	113.9	115.2	115.6	117.4	118.3	118.3	119.6
65°	101.6	101.1	100.7	101.1	101.6	101.6	102.9	103.8	104.6	105.1	105.5
67.5°	87.5	87.1	87.9	87.5	88.4	90.1	89.7	91.0	92.3	92.3	92.8
70°	74.3	75.2	74.7	75.6	75.2	76.1	77.4	77.8	77.8	78.3	79.6
72.5°	62.0	62.0	62.0	61.6	62.0	62.9	63.8	64.2	65.1	65.5	66.8
75°	50.1	50.1	49.2	50.1	50.1	51.0	51.9	51.9	51.9	52.8	54.1
77.5°	37.8	38.3	37.8	38.7	38.7	39.1	40.0	39.6	40.4	40.9	41.3
80°	27.7	27.3	27.3	27.3	27.7	27.7	28.6	29.0	29.0	30.3	29.5
82.5°	17.6	18.0	17.6	18.0	18.0	18.5	18.0	18.5	18.9	19.8	19.3
85°	10.1	9.7	9.7	10.1	9.7	9.7	10.1	9.7	10.1	9.7	10.1
87.5°	4.0	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: P997588

CATALOG NUMBER: SA2XXDP-B290DB40-4F0-XX-W2A-A

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
2.5°	545.2	546.5	543.4	542.5	543.4	540.3	541.2	542.1	542.1	543.4	544.3
5°	513.5	511.8	508.7	507.8	506.9	508.2	507.4	508.7	509.1	512.2	512.6
7.5°	482.3	479.7	477.0	474.4	473.5	471.3	473.5	473.5	476.6	475.7	477.9
10°	445.4	444.9	441.4	440.1	438.3	434.8	439.7	438.3	440.5	444.5	445.4
12.5°	418.1	413.3	415.5	409.3	411.5	408.0	408.4	408.4	412.0	412.4	411.5
15°	392.2	388.2	382.5	379.9	378.5	376.8	382.5	382.9	380.3	386.5	384.3
17.5°	365.8	365.8	360.5	359.2	355.7	357.4	356.6	357.0	356.1	360.5	362.7
20°	342.9	340.7	339.0	339.4	335.0	334.1	333.3	334.1	337.2	340.3	341.2
22.5°	324.5	323.1	318.8	319.6	316.1	317.4	316.6	318.8	319.2	319.2	322.3
25°	306.9	305.1	305.6	303.8	302.5	302.5	301.2	302.5	304.2	305.1	305.6
27.5°	293.7	292.4	290.2	288.9	289.7	287.5	289.3	290.6	290.6	289.7	290.6
30°	277.9	278.7	278.7	274.3	276.1	275.2	276.5	277.4	277.4	277.9	277.0
32.5°	267.3	264.7	264.2	263.8	263.8	262.0	262.0	263.4	263.8	264.2	265.6
35°	253.2	253.2	251.0	252.4	250.6	251.0	250.6	251.0	251.9	250.6	251.9
37.5°	240.5	240.9	240.1	240.9	241.4	240.5	239.6	241.4	240.5	240.5	239.6
40°	229.5	229.1	229.5	229.5	229.5	229.9	229.1	229.1	229.1	228.2	227.3
42.5°	220.3	217.6	218.5	219.0	217.6	217.6	218.1	217.6	219.0	216.3	216.3
45°	207.1	206.2	206.6	206.6	207.5	206.2	207.1	207.5	206.2	205.8	204.9
47.5°	195.2	196.1	195.2	196.1	196.1	197.0	195.2	195.6	196.1	194.3	193.0
50°	183.3	183.3	184.7	184.2	184.7	183.8	183.8	183.3	183.8	182.9	181.6
52.5°	172.3	171.0	173.2	172.8	172.3	171.9	171.5	171.9	171.0	170.1	170.1
55°	158.7	158.7	160.0	160.5	160.5	159.6	158.7	159.2	158.7	158.3	157.8
57.5°	147.7	146.0	146.8	147.3	147.3	146.0	146.8	146.0	146.0	146.4	145.1
60°	133.7	133.7	132.8	134.1	134.1	133.2	133.2	133.7	132.8	132.3	131.9
62.5°	118.7	119.1	120.5	120.9	121.3	120.5	119.6	120.0	120.0	118.7	119.1
65°	106.0	106.8	108.6	108.2	107.3	107.7	106.8	107.3	106.0	106.4	105.1
67.5°	93.6	93.2	93.6	93.6	94.5	94.1	93.2	93.2	92.8	94.1	92.8
70°	80.5	80.5	80.5	80.5	80.9	81.3	80.5	79.6	80.0	79.1	78.7
72.5°	66.8	67.3	66.8	67.7	66.4	67.3	67.3	66.8	66.4	66.4	66.4
75°	54.1	55.0	53.6	54.1	53.6	54.5	54.1	54.1	53.2	52.8	53.2
77.5°	41.3	41.8	40.9	41.3	40.9	41.3	41.3	40.9	40.9	40.9	40.9
80°	29.5	29.9	29.5	29.0	28.6	29.5	28.6	29.0	29.5	29.0	29.9
82.5°	18.9	18.9	18.5	18.9	18.0	18.0	18.5	18.5	18.0	18.9	18.0
85°	9.2	9.2	10.1	9.2	8.8	8.8	8.8	9.2	8.8	9.7	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: P997588

CATALOG NUMBER: SA2XXDP-B290DB40-4F0-XX-W2A-A

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
2.5°	543.0	546.5	545.2	540.3	546.1	546.1	550.0	550.0	554.9	556.6	559.2
5°	512.2	514.8	517.0	514.8	518.8	525.0	528.5	531.5	538.1	540.8	544.7
7.5°	479.2	484.1	486.3	486.3	492.9	499.9	506.9	511.3	520.6	524.1	528.0
10°	447.1	452.8	457.2	456.8	467.8	472.2	481.0	491.1	500.3	505.6	511.3
12.5°	413.3	416.4	422.5	431.3	433.9	441.9	452.0	464.7	481.4	486.3	494.6
15°	385.1	393.5	398.3	402.3	408.4	415.9	426.9	439.2	455.9	466.5	475.3
17.5°	361.4	372.4	375.5	374.6	382.5	393.9	406.7	415.9	430.9	443.6	452.0
20°	342.1	346.5	351.7	353.9	360.1	372.4	384.7	395.3	407.6	417.7	427.3
22.5°	322.7	326.2	330.6	334.6	339.4	346.5	358.3	371.5	383.4	393.1	404.0
25°	306.9	309.1	313.0	316.1	321.4	326.2	334.6	349.1	363.2	368.9	378.5
27.5°	291.5	293.3	295.9	299.4	302.0	306.9	314.4	326.2	340.7	346.5	359.6
30°	277.9	279.2	281.8	283.6	284.9	290.6	296.3	305.6	316.6	324.5	334.1
32.5°	265.1	266.4	269.1	269.5	271.3	274.3	279.6	288.0	297.6	304.2	312.6
35°	251.0	251.9	254.6	255.4	256.8	259.4	263.4	269.5	278.3	283.1	290.6
37.5°	240.1	239.6	241.4	242.7	244.5	245.8	247.1	253.2	259.8	264.2	270.0
40°	228.2	227.3	227.7	229.5	230.4	232.1	232.1	238.3	242.7	246.2	250.6
42.5°	216.3	215.9	215.0	215.9	216.8	217.2	217.6	222.0	226.4	229.5	234.3
45°	204.4	204.0	203.1	203.6	203.6	204.4	205.8	207.5	210.6	213.2	215.9
47.5°	193.5	192.6	191.3	190.8	191.7	191.7	191.7	193.5	196.5	197.4	200.0
50°	182.0	180.7	178.9	178.1	178.1	177.6	178.5	178.9	181.6	182.5	184.7
52.5°	169.7	168.8	167.1	165.3	165.8	164.9	165.3	165.8	166.6	167.9	169.3
55°	157.4	155.6	154.3	153.9	152.6	152.6	151.2	153.0	152.6	153.0	154.8
57.5°	145.5	143.8	141.6	140.7	139.4	138.9	138.1	137.6	138.1	139.4	140.7
60°	131.5	130.6	129.3	127.9	127.1	125.7	124.9	124.9	124.4	124.4	124.9
62.5°	117.8	117.4	115.6	115.2	114.3	113.4	112.1	111.2	111.2	112.1	112.6
65°	104.6	104.2	102.9	102.4	100.2	99.4	98.9	98.5	97.6	97.6	97.6
67.5°	92.3	91.0	91.0	88.8	87.1	86.2	85.3	84.9	84.9	84.9	85.3
70°	78.7	78.7	77.4	76.1	74.3	74.7	73.4	72.1	72.1	71.2	71.7
72.5°	65.5	65.1	63.8	63.3	62.0	60.7	59.8	60.7	59.4	58.9	59.4
75°	52.8	52.3	51.4	50.6	51.0	49.7	48.4	47.9	47.9	47.0	47.0
77.5°	40.4	41.3	39.6	39.1	38.3	37.4	36.9	36.5	36.5	36.5	37.4
80°	28.1	28.6	28.6	27.7	28.1	26.8	26.8	26.8	25.5	25.9	26.4
82.5°	18.0	18.0	17.6	18.0	17.6	17.6	17.1	17.1	16.7	16.7	17.1
85°	10.1	9.7	9.2	10.1	9.7	9.7	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: P997588

CATALOG NUMBER: SA2XXDP-B290DB40-4F0-XX-W2A-A

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	572.0	572.0	572.0	572.0
2.5°	561.4	561.4	568.0	575.1
5°	549.1	552.2	562.8	572.4
7.5°	537.3	542.5	555.7	568.0
10°	522.8	529.8	546.1	560.6
12.5°	508.7	515.3	534.2	550.5
15°	488.9	497.3	517.5	537.7
17.5°	469.1	477.5	502.1	525.8
20°	445.8	456.8	484.5	516.2
22.5°	424.3	437.9	468.7	494.2
25°	400.5	421.6	450.2	483.2
27.5°	379.4	400.5	429.5	463.0
30°	355.7	377.2	407.1	437.9
32.5°	332.8	352.6	381.6	419.4
35°	309.1	328.0	356.1	394.4
37.5°	287.5	306.0	336.8	372.0
40°	266.4	285.8	312.2	347.3
42.5°	246.6	263.8	287.5	322.7
45°	228.6	240.9	262.9	295.9
47.5°	209.7	220.7	240.9	273.9
50°	192.1	201.4	219.0	249.7
52.5°	175.0	182.9	199.2	223.8
55°	159.6	167.1	178.9	203.1
57.5°	143.8	149.5	160.9	180.3
60°	128.4	133.7	142.9	158.7
62.5°	113.0	117.4	126.2	138.9
65°	99.4	102.9	109.5	120.5
67.5°	86.2	88.4	93.6	102.4
70°	73.4	75.2	79.6	86.6
72.5°	59.8	61.6	66.4	71.2
75°	48.4	48.8	52.3	56.3
77.5°	37.8	37.4	40.0	43.1
80°	25.9	27.3	29.5	30.8
82.5°	17.6	18.0	18.9	19.8
85°	9.7	10.1	10.1	11.4
87.5°	4.0	4.4	4.4	4.8
90°	0.0	0.0	0.0	0.0

TEST NUMBER: P997588

CATALOG NUMBER: SA2XXDP-B290DB40-4F0-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	19.63	21.14	19.99	21.46	21.77	15.89	17.41	16.26	17.72	18.04
	3H	20.74	22.10	21.12	22.43	22.79	17.31	18.67	17.68	19.00	19.36
	4H	21.07	22.34	21.47	22.69	23.07	17.81	19.09	18.21	19.44	19.82
	6H	21.26	22.43	21.67	22.80	23.19	18.17	19.35	18.58	19.72	20.11
	8H	21.30	22.42	21.72	22.81	23.21	18.28	19.41	18.71	19.80	20.20
	12H	21.31	22.38	21.74	22.77	23.20	18.36	19.43	18.79	19.81	20.24
4H	2H	19.74	21.02	20.14	21.37	21.75	16.69	17.97	17.09	18.32	18.69
	3H	21.08	22.14	21.49	22.54	22.94	18.27	19.33	18.68	19.73	20.13
	4H	21.55	22.50	21.98	22.92	23.36	18.87	19.82	19.30	20.24	20.67
	6H	21.88	22.71	22.34	23.15	23.61	19.32	20.15	19.78	20.59	21.05
	8H	21.96	22.73	22.42	23.18	23.64	19.46	20.24	19.93	20.68	21.15
	12H	22.00	22.69	22.48	23.17	23.64	19.57	20.26	20.05	20.74	21.21
8H	4H	21.63	22.41	22.10	22.85	23.32	19.27	20.05	19.74	20.49	20.96
	6H	22.04	22.68	22.54	23.17	23.65	19.82	20.46	20.31	20.95	21.43
	8H	22.17	22.74	22.68	23.25	23.74	20.02	20.59	20.53	21.10	21.59
	12H	22.26	22.77	22.77	23.26	23.82	20.18	20.69	20.69	21.18	21.74
12H	4H	21.63	22.32	22.11	22.80	23.27	19.33	20.02	19.81	20.50	20.97
	6H	22.04	22.61	22.55	23.12	23.61	19.89	20.47	20.41	20.98	21.46
	8H	22.20	22.71	22.71	23.20	23.77	20.14	20.65	20.65	21.14	21.71