

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: P997570

Luminaire Tested: SA2XXDP-B290DB2750-4F0-XX-W2A-A_4000K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997570
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-B290DB2750-4F0-XX-W2A-A_4000K
Description: Define 2 Direct Recessed with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

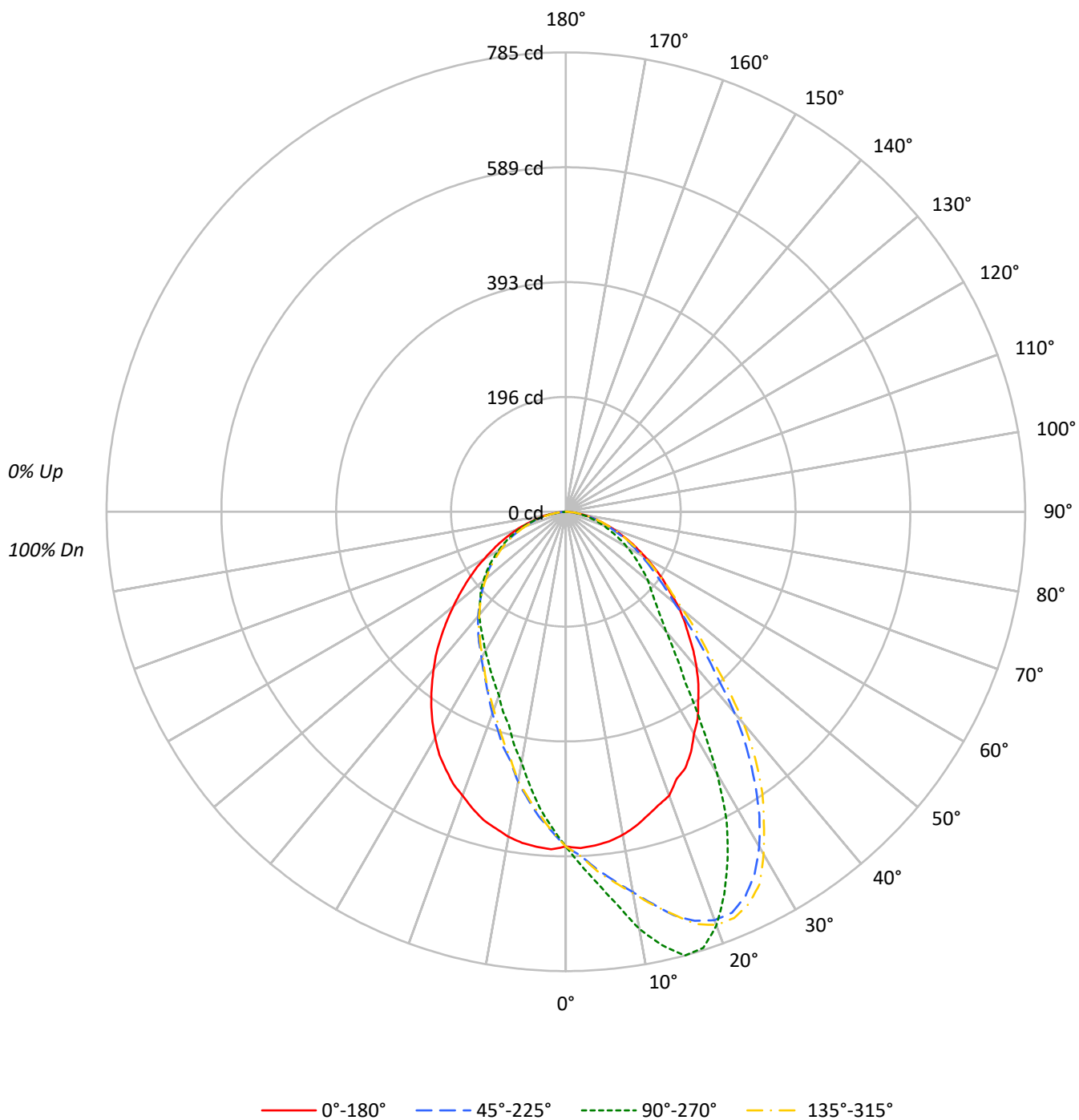
Lumens per Lamp: N/A
Luminaire Lumens: 1262.0 lumens
Efficiency: N/A
Efficacy: 97.1 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.09 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

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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CATALOG NUMBER: SA2XXDP-B290DB2750-4F0-XX-W2A-A_4000K

Luminous Intensity Polar Plot



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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	0
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

TEST NUMBER: P997570

CATALOG NUMBER: SA2XXDP-B290DB2750-4F0-XX-W2A-A_4000K

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: P997570

CATALOG NUMBER: SA2XXDP-B290DB2750-4F0-XX-W2A-A_4000K

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: P997570

CATALOG NUMBER: SA2XXDP-B290DB2750-4F0-XX-W2A-A_4000K

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: P997570

CATALOG NUMBER: SA2XXDP-B290DB2750-4F0-XX-W2A-A_4000K

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: P997570

CATALOG NUMBER: SA2XXDP-B290DB2750-4F0-XX-W2A-A_4000K

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: P997570

CATALOG NUMBER: SA2XXDP-B290DB2750-4F0-XX-W2A-A_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	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

END OF REPORT