

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: P997582

Luminaire Tested: SA2XXDP-B290DB30-4F0-XX-W2A-A

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997582
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-B290DB30-4F0-XX-W2A-A
Description: Define 2 Direct Recessed with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

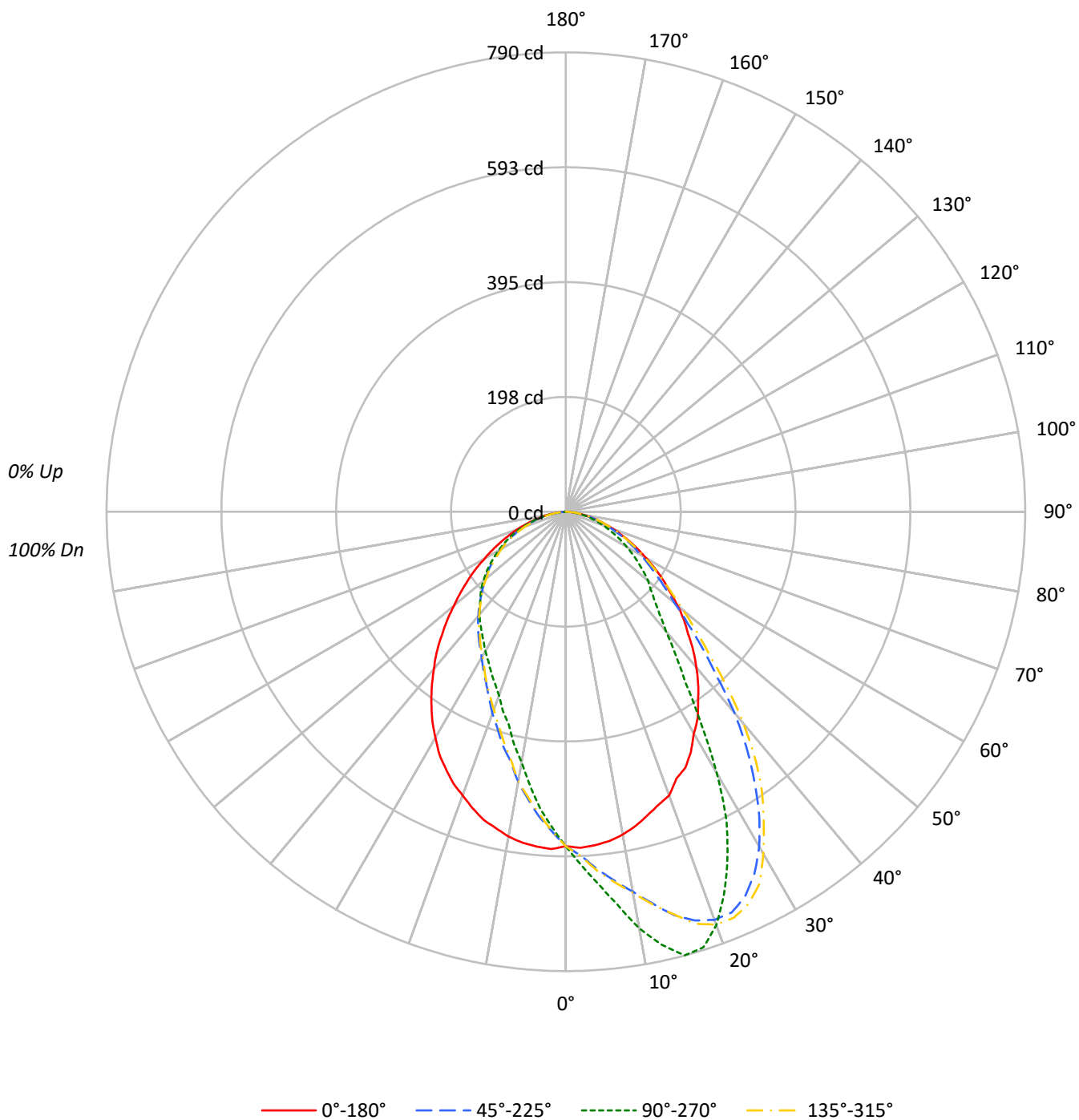
Lumens per Lamp: N/A
Luminaire Lumens: 1269.0 lumens
Efficiency: N/A
Efficacy: 97.6 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.09 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

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



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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	9105	9105	9105	9105
5°	9146	10208	9181	8121
10°	9061	11697	9117	7027
15°	8861	12940	8984	6209
20°	8743	12742	8743	5660
25°	8487	11489	8525	5313
30°	8048	9495	8201	5059
35°	7664	6920	7791	4877
40°	7218	5528	7298	4777
45°	6660	4829	6770	4641
50°	6184	4541	6196	4551
55°	5635	4184	5674	4429
60°	5053	3834	5122	4242
65°	4536	3495	4618	4056
70°	4031	3170	4133	3786
75°	3462	2813	3596	3352
80°	2817	2416	3026	2698
85°	2089	2161	2252	1598

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 155°

Vertical Angle: 45°

Luminance: 11887 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.8	4.3
10°-20°	159.5	12.6
20°-30°	231.4	18.2
30°-40°	244.0	19.2
40°-50°	215.9	17.0
50°-60°	172.4	13.6
60°-70°	117.1	9.2
70°-80°	59.9	4.7
80°-90°	14.2	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°	445.7	35.1
0°-40°	689.6	54.3
0°-60°	1077.9	84.9
0°-90°	1269.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1269.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	575	575	575	575	575	
5°	576	642	578	511	576	55
15°	541	790	548	379	541	153
25°	486	658	488	304	486	222
35°	397	358	403	252	397	248
45°	298	216	302	207	298	231
55°	204	152	206	160	204	182
65°	121	93	123	108	121	120
75°	57	46	59	55	57	61
85°	12	12	12	9	12	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°	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2
2.5°	578.3	579.6	581.8	582.2	586.7	590.2	594.2	594.2	595.5	595.1	591.5
5°	575.6	579.6	585.3	590.2	598.2	601.7	607.0	611.0	614.5	617.2	616.7
7.5°	571.2	578.3	586.7	595.9	606.6	612.7	620.3	627.3	632.2	636.6	639.7
10°	563.7	575.6	587.1	599.5	613.2	621.6	630.4	639.7	647.2	655.6	663.6
12.5°	553.5	570.7	584.9	601.3	618.1	627.3	641.5	648.6	663.1	684.4	690.1
15°	540.7	564.1	577.4	598.2	620.3	627.8	647.2	658.7	688.8	702.1	718.0
17.5°	528.7	554.8	572.5	596.4	618.1	632.6	651.7	675.1	700.3	719.3	737.0
20°	519.0	544.2	565.4	592.0	619.4	637.9	657.8	686.1	713.5	733.0	746.7
22.5°	496.9	529.2	553.9	583.6	616.7	642.4	661.4	692.3	721.9	733.9	745.8
25°	485.9	513.7	542.5	576.1	615.0	645.5	661.8	696.3	722.4	726.8	729.5
27.5°	465.5	496.9	530.5	569.0	614.5	640.2	660.9	692.3	713.1	710.0	702.1
30°	440.3	478.8	515.9	557.5	608.3	636.2	655.6	684.4	695.0	679.1	664.9
32.5°	421.8	458.0	499.1	547.3	601.3	627.8	646.8	669.3	671.5	642.8	618.9
35°	396.6	436.8	483.2	534.1	589.3	613.2	630.9	644.6	634.0	593.7	565.4
37.5°	374.0	413.8	463.3	515.0	573.0	596.4	610.5	612.7	586.7	551.3	509.7
40°	349.3	390.4	442.1	496.5	554.8	575.2	584.0	577.4	539.8	498.7	450.5
42.5°	324.5	365.2	420.9	476.6	531.8	549.1	552.6	534.5	488.5	440.3	384.6
45°	297.5	340.0	395.7	451.8	505.3	515.0	515.5	489.4	435.0	384.6	332.9
47.5°	275.4	314.8	370.0	426.2	471.3	477.9	475.3	445.2	386.0	329.4	284.3
50°	251.1	288.7	343.5	398.8	437.2	439.0	432.4	389.5	331.6	279.8	244.0
52.5°	225.0	263.0	313.4	366.5	401.0	398.3	385.5	339.5	285.2	242.3	214.9
55°	204.2	237.8	285.2	336.9	361.2	353.7	339.5	292.7	249.8	213.5	189.7
57.5°	181.3	210.9	257.3	302.4	316.5	309.5	295.3	251.6	211.8	184.4	168.4
60°	159.6	186.6	227.2	264.8	275.9	268.4	252.0	212.6	183.9	160.9	149.0
62.5°	139.7	163.1	197.2	231.7	236.1	228.6	214.4	182.6	157.8	139.7	130.9
65°	121.1	143.2	170.6	196.7	200.7	192.8	178.2	155.2	134.4	122.9	114.5
67.5°	103.0	120.7	145.0	164.0	166.2	158.7	146.8	128.2	115.4	103.0	96.8
70°	87.1	100.4	119.4	134.8	135.7	128.7	122.5	105.7	95.9	87.1	82.2
72.5°	71.6	80.9	95.5	107.0	107.4	103.0	97.3	86.7	78.3	72.1	67.2
75°	56.6	64.5	73.4	83.6	83.1	79.6	75.2	68.5	61.5	57.5	55.3
77.5°	43.3	48.2	55.3	61.9	61.9	60.1	57.5	52.6	48.2	44.2	42.0
80°	30.9	34.0	39.8	42.0	42.9	42.4	40.2	36.7	34.9	31.8	30.9
82.5°	19.9	22.1	24.8	27.0	28.3	27.4	27.0	25.2	22.5	21.7	20.8
85°	11.5	12.4	13.7	15.0	15.5	15.0	15.9	14.6	13.3	13.3	12.8
87.5°	4.9	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°	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2
2.5°	597.7	598.2	599.0	603.5	605.7	606.1	604.3	608.3	609.7	608.3	607.4
5°	626.0	628.7	634.0	639.7	639.3	639.7	642.4	645.0	645.9	642.4	643.7
7.5°	650.8	656.1	661.8	670.7	670.7	675.1	676.9	679.1	684.4	681.7	680.8
10°	679.1	686.1	696.7	710.9	711.3	715.8	720.2	727.3	729.5	727.7	728.6
12.5°	714.4	728.1	729.0	744.5	751.6	752.5	759.5	758.2	762.6	762.6	770.1
15°	729.9	751.1	763.1	778.1	782.5	777.2	783.0	789.1	789.6	789.6	789.1
17.5°	757.8	766.2	778.1	786.1	787.8	787.8	788.3	790.9	789.1	785.6	788.3
20°	763.5	767.0	771.5	770.6	771.5	767.0	762.6	758.2	758.6	756.4	763.1
22.5°	752.9	752.0	741.8	735.2	735.2	726.4	718.0	714.0	710.0	711.3	713.5
25°	726.4	712.7	700.3	690.6	688.3	674.2	662.7	659.2	652.5	657.8	658.7
27.5°	683.9	668.5	648.6	640.2	628.7	622.9	615.0	604.3	590.6	598.6	597.3
30°	638.4	615.4	599.0	578.7	560.6	559.3	544.2	526.5	519.5	519.5	523.4
32.5°	587.5	557.0	533.2	504.4	486.8	479.2	461.1	443.4	447.4	434.1	439.0
35°	528.3	488.1	458.0	430.2	416.9	408.1	384.6	374.9	364.3	358.1	369.6
37.5°	471.7	425.3	386.8	356.3	351.5	335.6	319.6	313.4	307.3	309.9	309.5
40°	402.8	361.6	327.2	303.3	294.9	287.4	276.8	269.2	265.3	267.5	267.9
42.5°	340.4	305.9	280.3	263.5	256.4	251.1	245.8	239.6	238.3	238.3	240.1
45°	292.2	263.9	246.7	233.0	229.0	225.0	221.0	218.4	217.5	215.7	217.1
47.5°	253.8	231.2	220.6	210.4	206.0	205.1	201.6	200.3	198.5	198.1	198.5
50°	221.5	207.3	197.6	191.9	188.8	187.4	185.7	183.0	182.1	184.4	183.5
52.5°	198.9	185.7	180.4	174.6	172.9	171.1	168.4	168.9	168.4	167.6	167.6
55°	176.4	168.0	162.7	158.3	157.8	156.1	153.9	153.0	152.5	151.6	153.0
57.5°	158.3	151.6	146.8	142.8	141.0	141.0	138.8	137.1	137.1	136.6	137.1
60°	140.1	133.5	130.4	126.4	125.1	124.7	123.3	122.5	121.1	121.1	121.1
62.5°	123.3	118.0	114.5	111.0	111.4	109.2	107.4	106.5	106.5	107.0	107.0
65°	107.4	103.9	99.5	96.4	95.5	95.1	94.2	93.7	92.4	93.3	93.3
67.5°	92.8	88.0	85.3	84.0	82.7	82.2	81.3	80.5	80.0	79.6	80.5
70°	78.3	74.3	72.1	71.2	69.9	69.4	69.0	67.6	68.1	68.5	69.0
72.5°	65.0	61.5	61.0	58.4	58.4	58.4	56.6	57.5	57.0	56.1	57.0
75°	51.3	49.5	48.6	47.3	47.7	47.3	46.9	45.5	45.5	46.0	46.4
77.5°	40.7	38.9	38.5	37.1	36.3	37.1	36.3	35.8	35.8	36.3	36.3
80°	30.1	29.2	27.9	27.9	27.9	27.4	27.4	27.4	27.0	26.5	27.0
82.5°	19.9	19.9	19.5	19.0	19.5	18.6	19.0	19.0	19.0	19.0	19.0
85°	12.8	12.4	12.4	11.9	11.9	11.9	12.4	11.5	11.5	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°	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2
2.5°	609.7	606.6	603.9	604.3	606.6	604.8	600.4	594.6	592.4	589.8	592.4
5°	646.3	643.7	638.4	638.8	637.5	635.7	628.7	619.8	619.8	612.7	611.9
7.5°	682.6	678.6	675.1	674.2	669.3	665.8	659.6	647.2	642.4	634.0	629.1
10°	723.3	720.2	716.2	711.3	708.7	702.5	692.3	674.2	665.4	653.9	645.5
12.5°	764.4	763.9	755.1	745.4	744.9	735.2	728.1	703.8	691.9	676.4	656.5
15°	790.5	788.3	783.4	778.5	779.9	769.3	753.3	724.6	716.6	698.1	676.9
17.5°	790.0	790.0	788.7	787.8	786.5	783.4	774.6	755.5	742.7	719.3	699.4
20°	764.8	770.6	771.9	771.5	775.9	778.1	777.7	765.7	755.5	734.8	714.4
22.5°	714.4	727.7	733.4	737.0	746.3	751.1	762.6	758.2	755.5	740.1	722.8
25°	667.6	672.0	689.2	690.1	702.9	714.9	726.4	733.9	743.6	737.9	723.3
27.5°	607.0	617.2	629.5	638.8	641.5	665.8	684.8	699.0	721.1	722.8	718.0
30°	538.5	543.3	563.7	576.1	590.2	607.9	635.3	659.6	679.5	697.6	703.8
32.5°	454.9	474.8	486.8	501.8	514.2	545.5	579.1	610.5	633.5	664.0	677.3
35°	378.4	393.9	414.2	420.4	443.0	469.5	513.3	553.5	588.4	619.4	646.3
37.5°	315.2	327.6	349.3	359.0	372.2	406.3	443.0	492.9	534.9	573.0	606.6
40°	271.9	281.2	297.5	300.6	311.7	342.6	372.2	419.1	474.8	526.1	562.8
42.5°	242.3	246.7	257.7	261.7	268.8	289.6	316.1	360.3	412.0	465.1	516.8
45°	221.0	224.1	230.8	234.3	243.2	252.4	274.1	309.5	350.1	403.6	459.3
47.5°	202.0	206.0	208.7	210.9	215.7	225.9	240.1	266.1	305.0	354.1	408.1
50°	186.1	187.4	192.3	192.8	195.8	202.5	215.7	231.7	262.6	302.4	354.6
52.5°	170.2	171.5	174.6	177.7	179.0	184.4	193.2	206.5	229.4	260.8	307.3
55°	154.3	156.1	159.2	161.4	162.7	167.1	172.4	185.2	203.4	225.5	263.5
57.5°	138.4	142.4	143.2	144.6	146.8	151.6	156.5	164.0	178.2	198.5	226.4
60°	123.3	124.7	127.8	129.1	131.3	134.0	140.1	145.9	156.1	172.0	197.2
62.5°	107.9	111.0	112.3	113.6	115.4	118.5	122.5	128.7	137.5	150.3	170.2
65°	94.6	95.1	97.7	99.5	101.2	103.5	107.4	113.2	118.5	130.4	145.0
67.5°	81.8	82.7	83.6	85.3	87.5	89.7	93.3	96.4	103.0	111.0	122.5
70°	69.4	69.4	71.6	72.9	72.5	75.2	77.8	81.3	86.2	93.7	103.0
72.5°	58.4	57.9	59.7	60.1	61.0	62.8	64.5	68.1	70.7	76.5	83.6
75°	46.4	47.3	48.2	48.2	49.5	50.8	52.6	54.4	57.5	61.0	66.3
77.5°	36.7	36.7	37.6	38.0	39.3	38.9	40.7	42.4	44.7	47.7	51.7
80°	27.0	27.9	27.9	27.9	28.3	28.7	30.5	31.8	33.2	35.4	37.1
82.5°	19.0	19.0	19.9	19.9	19.9	20.8	20.8	21.2	22.1	23.4	24.8
85°	11.9	11.9	11.9	12.4	11.9	12.4	13.3	12.8	13.3	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-B290DB30-4F0-XX-W2A-A

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2
2.5°	590.2	588.0	586.7	587.5	584.9	578.3	578.3	580.5	577.8	575.2	571.2
5°	606.6	602.1	599.5	599.0	592.9	582.2	580.0	577.8	572.1	565.9	559.3
7.5°	622.5	614.5	610.1	607.0	598.2	584.5	578.7	573.8	564.6	555.3	546.9
10°	635.7	624.2	618.9	614.1	602.6	585.3	576.1	567.2	555.3	543.3	532.7
12.5°	646.3	633.1	626.5	619.4	605.2	582.7	571.2	557.0	545.1	529.2	518.6
15°	664.0	636.6	630.4	623.8	609.2	578.3	564.1	548.2	531.8	510.6	499.1
17.5°	678.2	641.5	641.0	626.9	607.9	576.5	554.8	534.1	516.4	495.2	477.0
20°	686.6	649.0	641.9	627.3	603.5	564.6	542.0	519.0	500.0	474.4	456.2
22.5°	693.7	659.6	641.0	623.4	594.2	560.6	527.4	505.8	479.7	451.8	434.6
25°	696.3	661.8	642.4	622.0	587.5	549.1	511.5	488.1	458.9	433.7	410.3
27.5°	696.7	661.4	637.5	616.3	578.3	534.1	495.6	470.8	438.6	409.4	386.0
30°	692.3	656.5	634.9	611.9	569.4	520.3	476.1	448.7	414.2	385.1	360.8
32.5°	679.1	646.8	629.1	603.9	557.9	501.3	457.6	427.1	390.8	362.1	338.6
35°	657.0	634.9	615.4	592.0	542.9	483.7	439.0	403.2	366.5	339.1	317.0
37.5°	629.5	617.6	599.5	576.5	525.7	467.7	418.2	378.4	341.7	315.2	293.6
40°	592.4	595.5	577.8	557.0	505.3	446.1	391.3	353.2	318.8	294.0	272.8
42.5°	552.2	565.0	554.8	534.9	482.8	422.2	371.4	329.4	295.8	270.1	252.4
45°	508.9	531.0	524.8	510.2	459.3	397.0	343.1	302.4	272.8	248.0	232.5
47.5°	461.6	492.9	492.9	482.3	433.3	371.8	318.8	277.2	248.0	230.3	215.3
50°	413.4	448.7	454.5	447.4	404.1	343.1	289.1	251.6	226.4	209.1	198.1
52.5°	363.0	404.1	414.7	411.2	373.1	315.7	264.8	228.1	205.1	190.1	180.4
55°	314.8	362.5	374.0	375.3	340.0	285.6	237.8	205.6	183.5	173.3	164.9
57.5°	269.2	315.2	328.0	330.2	306.4	258.2	212.6	184.4	164.5	156.1	149.4
60°	230.3	268.8	285.6	290.5	269.7	226.4	189.2	161.8	146.8	138.8	132.6
62.5°	198.5	229.4	247.1	248.5	239.2	198.5	164.9	141.9	129.1	122.0	118.9
65°	167.6	195.4	206.0	211.3	203.8	172.0	142.4	123.3	113.2	107.0	103.9
67.5°	142.8	160.5	169.3	176.4	168.9	145.0	121.1	105.7	98.1	92.0	90.2
70°	117.2	131.7	138.4	145.5	138.8	120.7	103.5	89.3	82.7	77.8	75.6
72.5°	93.7	105.2	111.4	115.8	111.9	96.8	82.7	72.9	68.1	64.5	63.2
75°	74.3	82.2	85.8	88.9	87.1	75.6	66.8	58.8	54.4	51.3	50.4
77.5°	56.6	62.3	66.3	67.2	65.0	57.5	50.0	45.1	41.6	39.8	38.9
80°	40.2	43.8	46.0	47.3	45.1	42.0	36.7	33.2	30.1	27.9	27.4
82.5°	27.0	28.7	30.5	30.1	29.2	26.5	23.4	21.7	20.3	18.6	18.6
85°	15.5	15.9	16.8	17.2	16.8	15.0	13.3	12.4	11.5	10.2	10.2
87.5°	6.6	7.1	7.1	7.5	6.6	6.6	5.7	4.9	4.9	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: P997582

CATALOG NUMBER: SA2XXDP-B290DB30-4F0-XX-W2A-A

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2
2.5°	569.0	571.2	570.7	566.3	561.5	557.5	550.0	550.9	548.2	548.6	551.3
5°	554.8	554.8	553.1	546.9	538.9	534.5	526.1	523.9	518.6	518.1	517.7
7.5°	539.8	537.6	535.4	526.5	516.8	509.7	498.2	495.6	490.3	486.8	485.0
10°	522.1	519.0	514.6	504.4	492.5	483.7	471.7	468.2	458.0	453.6	450.9
12.5°	502.7	500.9	493.8	485.4	466.0	456.2	439.0	442.5	432.4	423.5	422.2
15°	483.2	476.6	472.6	458.9	435.5	431.0	417.3	410.3	401.0	393.9	393.9
17.5°	464.2	454.0	445.2	430.6	413.4	401.0	390.8	387.3	375.8	368.7	367.4
20°	439.0	427.5	425.3	404.5	392.6	378.9	369.2	360.3	351.9	348.8	346.6
22.5°	415.1	401.9	398.3	380.6	368.7	355.0	345.3	339.1	332.9	330.7	326.7
25°	389.5	381.5	376.2	357.2	344.0	331.1	324.5	320.1	314.3	313.9	311.2
27.5°	364.7	357.2	351.9	333.8	324.1	312.1	306.8	302.0	298.9	297.5	296.2
30°	343.5	335.1	328.9	315.7	303.7	294.0	289.6	286.5	284.7	282.5	282.1
32.5°	320.1	315.2	306.8	296.6	287.4	278.1	275.4	273.2	270.6	269.7	269.2
35°	300.2	293.6	288.2	276.8	272.8	264.8	261.7	260.0	256.4	255.5	254.6
37.5°	280.7	274.5	268.8	261.7	254.2	249.8	248.0	245.4	243.6	244.0	243.2
40°	261.3	256.4	252.0	244.5	240.1	237.8	234.3	231.7	230.8	231.2	230.8
42.5°	242.3	237.8	235.2	229.4	225.0	222.8	220.6	218.0	219.3	219.3	220.6
45°	225.0	221.0	219.3	214.9	212.2	208.7	206.5	206.0	207.8	207.3	207.3
47.5°	207.3	206.0	203.8	199.8	196.3	194.1	193.6	193.6	195.4	196.3	195.8
50°	193.6	191.0	188.3	185.2	182.6	181.7	180.4	181.3	183.0	183.0	183.9
52.5°	176.4	174.6	173.7	171.1	169.3	169.3	169.3	169.8	171.1	172.4	172.0
55°	161.4	160.0	159.2	157.8	155.6	156.1	155.6	156.5	157.8	159.2	160.0
57.5°	145.5	145.0	144.1	141.9	141.9	141.5	142.8	143.2	145.5	146.3	147.7
60°	131.3	130.0	130.0	128.2	128.2	128.2	129.5	130.9	132.6	133.1	134.0
62.5°	116.3	116.3	115.8	114.5	114.5	115.8	116.3	118.0	118.9	118.9	120.3
65°	102.1	101.7	101.2	101.7	102.1	102.1	103.5	104.3	105.2	105.7	106.1
67.5°	88.0	87.5	88.4	88.0	88.9	90.6	90.2	91.5	92.8	92.8	93.3
70°	74.7	75.6	75.2	76.0	75.6	76.5	77.8	78.3	78.3	78.7	80.0
72.5°	62.3	62.3	62.3	61.9	62.3	63.2	64.1	64.5	65.4	65.9	67.2
75°	50.4	50.4	49.5	50.4	50.4	51.3	52.2	52.2	52.2	53.1	54.4
77.5°	38.0	38.5	38.0	38.9	38.9	39.3	40.2	39.8	40.7	41.1	41.6
80°	27.9	27.4	27.4	27.4	27.9	27.9	28.7	29.2	29.2	30.5	29.6
82.5°	17.7	18.1	17.7	18.1	18.1	18.6	18.1	18.6	19.0	19.9	19.5
85°	10.2	9.7	9.7	10.2	9.7	9.7	10.2	9.7	10.2	9.7	10.2
87.5°	4.0	3.5	3.5	3.5	3.5	3.1	3.1	2.7	2.7	2.7	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: P997582

CATALOG NUMBER: SA2XXDP-B290DB30-4F0-XX-W2A-A

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2
2.5°	548.2	549.5	546.4	545.5	546.4	543.3	544.2	545.1	545.1	546.4	547.3
5°	516.4	514.6	511.5	510.6	509.7	511.1	510.2	511.5	511.9	515.0	515.5
7.5°	485.0	482.3	479.7	477.0	476.1	473.9	476.1	476.1	479.2	478.4	480.6
10°	447.8	447.4	443.9	442.5	440.8	437.2	442.1	440.8	443.0	447.0	447.8
12.5°	420.4	415.6	417.8	411.6	413.8	410.3	410.7	410.7	414.2	414.7	413.8
15°	394.4	390.4	384.6	382.0	380.6	378.9	384.6	385.1	382.4	388.6	386.4
17.5°	367.8	367.8	362.5	361.2	357.7	359.4	358.5	359.0	358.1	362.5	364.7
20°	344.8	342.6	340.9	341.3	336.9	336.0	335.1	336.0	339.1	342.2	343.1
22.5°	326.3	324.9	320.5	321.4	317.9	319.2	318.3	320.5	321.0	321.0	324.1
25°	308.6	306.8	307.3	305.5	304.2	304.2	302.8	304.2	305.9	306.8	307.3
27.5°	295.3	294.0	291.8	290.5	291.3	289.1	290.9	292.2	292.2	291.3	292.2
30°	279.4	280.3	280.3	275.9	277.6	276.8	278.1	279.0	279.0	279.4	278.5
32.5°	268.8	266.1	265.7	265.3	265.3	263.5	263.5	264.8	265.3	265.7	267.0
35°	254.6	254.6	252.4	253.8	252.0	252.4	252.0	252.4	253.3	252.0	253.3
37.5°	241.8	242.3	241.4	242.3	242.7	241.8	240.9	242.7	241.8	241.8	240.9
40°	230.8	230.3	230.8	230.8	230.8	231.2	230.3	230.3	230.3	229.4	228.6
42.5°	221.5	218.8	219.7	220.2	218.8	218.8	219.3	218.8	220.2	217.5	217.5
45°	208.2	207.3	207.8	207.8	208.7	207.3	208.2	208.7	207.3	206.9	206.0
47.5°	196.3	197.2	196.3	197.2	197.2	198.1	196.3	196.7	197.2	195.4	194.1
50°	184.4	184.4	185.7	185.2	185.7	184.8	184.8	184.4	184.8	183.9	182.6
52.5°	173.3	172.0	174.2	173.7	173.3	172.9	172.4	172.9	172.0	171.1	171.1
55°	159.6	159.6	160.9	161.4	161.4	160.5	159.6	160.0	159.6	159.2	158.7
57.5°	148.5	146.8	147.7	148.1	148.1	146.8	147.7	146.8	146.8	147.2	145.9
60°	134.4	134.4	133.5	134.8	134.8	134.0	134.0	134.4	133.5	133.1	132.6
62.5°	119.4	119.8	121.1	121.6	122.0	121.1	120.3	120.7	120.7	119.4	119.8
65°	106.5	107.4	109.2	108.8	107.9	108.3	107.4	107.9	106.5	107.0	105.7
67.5°	94.2	93.7	94.2	94.2	95.1	94.6	93.7	93.7	93.3	94.6	93.3
70°	80.9	80.9	80.9	80.9	81.3	81.8	80.9	80.0	80.5	79.6	79.1
72.5°	67.2	67.6	67.2	68.1	66.8	67.6	67.6	67.2	66.8	66.8	66.8
75°	54.4	55.3	53.9	54.4	53.9	54.8	54.4	54.4	53.5	53.1	53.5
77.5°	41.6	42.0	41.1	41.6	41.1	41.6	41.6	41.1	41.1	41.1	41.1
80°	29.6	30.1	29.6	29.2	28.7	29.6	28.7	29.2	29.6	29.2	30.1
82.5°	19.0	19.0	18.6	19.0	18.1	18.1	18.6	18.6	18.1	19.0	18.1
85°	9.3	9.3	10.2	9.3	8.8	8.8	8.8	9.3	8.8	9.7	9.3
87.5°	2.2	1.8	2.2	2.2	1.8	1.8	2.2	1.8	2.2	2.7	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: P997582

CATALOG NUMBER: SA2XXDP-B290DB30-4F0-XX-W2A-A

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2
2.5°	546.0	549.5	548.2	543.3	549.1	549.1	553.1	553.1	557.9	559.7	562.3
5°	515.0	517.7	519.9	517.7	521.7	527.9	531.4	534.5	541.1	543.8	547.8
7.5°	481.9	486.8	489.0	489.0	495.6	502.7	509.7	514.2	523.4	527.0	531.0
10°	449.6	455.4	459.8	459.3	470.4	474.8	483.7	493.8	503.1	508.4	514.2
12.5°	415.6	418.7	424.9	433.7	436.4	444.3	454.5	467.3	484.1	489.0	497.4
15°	387.3	395.7	400.5	404.5	410.7	418.2	429.3	441.7	458.5	469.1	477.9
17.5°	363.4	374.5	377.6	376.7	384.6	396.1	408.9	418.2	433.3	446.1	454.5
20°	344.0	348.4	353.7	355.9	362.1	374.5	386.8	397.4	409.8	420.0	429.7
22.5°	324.5	328.0	332.5	336.4	341.3	348.4	360.3	373.6	385.5	395.2	406.3
25°	308.6	310.8	314.8	317.9	323.2	328.0	336.4	351.0	365.2	370.9	380.6
27.5°	293.1	294.9	297.5	301.1	303.7	308.6	316.1	328.0	342.6	348.4	361.6
30°	279.4	280.7	283.4	285.2	286.5	292.2	298.0	307.3	318.3	326.3	336.0
32.5°	266.6	267.9	270.6	271.0	272.8	275.9	281.2	289.6	299.3	305.9	314.3
35°	252.4	253.3	256.0	256.9	258.2	260.8	264.8	271.0	279.8	284.7	292.2
37.5°	241.4	240.9	242.7	244.0	245.8	247.1	248.5	254.6	261.3	265.7	271.4
40°	229.4	228.6	229.0	230.8	231.7	233.4	233.4	239.6	244.0	247.6	252.0
42.5°	217.5	217.1	216.2	217.1	218.0	218.4	218.8	223.3	227.7	230.8	235.6
45°	205.6	205.1	204.2	204.7	204.7	205.6	206.9	208.7	211.8	214.4	217.1
47.5°	194.5	193.6	192.3	191.9	192.8	192.8	192.8	194.5	197.6	198.5	201.2
50°	183.0	181.7	179.9	179.0	179.0	178.6	179.5	179.9	182.6	183.5	185.7
52.5°	170.6	169.8	168.0	166.2	166.7	165.8	166.2	166.7	167.6	168.9	170.2
55°	158.3	156.5	155.2	154.7	153.4	153.4	152.1	153.9	153.4	153.9	155.6
57.5°	146.3	144.6	142.4	141.5	140.1	139.7	138.8	138.4	138.8	140.1	141.5
60°	132.2	131.3	130.0	128.7	127.8	126.4	125.6	125.6	125.1	125.1	125.6
62.5°	118.5	118.0	116.3	115.8	114.9	114.1	112.7	111.9	111.9	112.7	113.2
65°	105.2	104.8	103.5	103.0	100.8	99.9	99.5	99.0	98.1	98.1	98.1
67.5°	92.8	91.5	91.5	89.3	87.5	86.7	85.8	85.3	85.3	85.3	85.8
70°	79.1	79.1	77.8	76.5	74.7	75.2	73.8	72.5	72.5	71.6	72.1
72.5°	65.9	65.4	64.1	63.7	62.3	61.0	60.1	61.0	59.7	59.2	59.7
75°	53.1	52.6	51.7	50.8	51.3	50.0	48.6	48.2	48.2	47.3	47.3
77.5°	40.7	41.6	39.8	39.3	38.5	37.6	37.1	36.7	36.7	36.7	37.6
80°	28.3	28.7	28.7	27.9	28.3	27.0	27.0	27.0	25.6	26.1	26.5
82.5°	18.1	18.1	17.7	18.1	17.7	17.7	17.2	17.2	16.8	16.8	17.2
85°	10.2	9.7	9.3	10.2	9.7	9.7	9.3	9.3	9.3	9.3	9.3
87.5°	2.2	2.7	2.7	2.7	2.7	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: P997582

CATALOG NUMBER: SA2XXDP-B290DB30-4F0-XX-W2A-A

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	575.2	575.2	575.2	575.2
2.5°	564.6	564.6	571.2	578.3
5°	552.2	555.3	565.9	575.6
7.5°	540.2	545.5	558.8	571.2
10°	525.7	532.7	549.1	563.7
12.5°	511.5	518.1	537.1	553.5
15°	491.6	500.0	520.3	540.7
17.5°	471.7	480.1	504.9	528.7
20°	448.3	459.3	487.2	519.0
22.5°	426.6	440.3	471.3	496.9
25°	402.8	424.0	452.7	485.9
27.5°	381.5	402.8	431.9	465.5
30°	357.7	379.3	409.4	440.3
32.5°	334.7	354.6	383.7	421.8
35°	310.8	329.8	358.1	396.6
37.5°	289.1	307.7	338.6	374.0
40°	267.9	287.4	313.9	349.3
42.5°	248.0	265.3	289.1	324.5
45°	229.9	242.3	264.4	297.5
47.5°	210.9	221.9	242.3	275.4
50°	193.2	202.5	220.2	251.1
52.5°	176.0	183.9	200.3	225.0
55°	160.5	168.0	179.9	204.2
57.5°	144.6	150.3	161.8	181.3
60°	129.1	134.4	143.7	159.6
62.5°	113.6	118.0	126.9	139.7
65°	99.9	103.5	110.1	121.1
67.5°	86.7	88.9	94.2	103.0
70°	73.8	75.6	80.0	87.1
72.5°	60.1	61.9	66.8	71.6
75°	48.6	49.1	52.6	56.6
77.5°	38.0	37.6	40.2	43.3
80°	26.1	27.4	29.6	30.9
82.5°	17.7	18.1	19.0	19.9
85°	9.7	10.2	10.2	11.5
87.5°	4.0	4.4	4.4	4.9
90°	0.0	0.0	0.0	0.0

TEST NUMBER: P997582

CATALOG NUMBER: SA2XXDP-B290DB30-4F0-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	19.65	21.16	20.01	21.47	21.79	15.91	17.43	16.28	17.74	18.06
	3H	20.76	22.12	21.14	22.45	22.81	17.33	18.69	17.70	19.01	19.38
	4H	21.08	22.36	21.48	22.71	23.09	17.83	19.11	18.23	19.46	19.84
	6H	21.27	22.45	21.69	22.82	23.21	18.19	19.37	18.60	19.74	20.13
	8H	21.31	22.44	21.74	22.83	23.23	18.30	19.43	18.73	19.81	20.22
	12H	21.33	22.40	21.76	22.78	23.21	18.38	19.45	18.81	19.83	20.26
4H	2H	19.76	21.04	20.16	21.39	21.77	16.71	17.99	17.11	18.33	18.71
	3H	21.10	22.16	21.51	22.56	22.96	18.29	19.35	18.70	19.75	20.15
	4H	21.57	22.52	22.00	22.94	23.38	18.88	19.84	19.32	20.25	20.69
	6H	21.90	22.73	22.36	23.17	23.63	19.34	20.17	19.80	20.61	21.07
	8H	21.98	22.75	22.44	23.20	23.66	19.48	20.26	19.95	20.70	21.17
	12H	22.02	22.71	22.50	23.19	23.66	19.59	20.28	20.07	20.76	21.23
8H	4H	21.65	22.43	22.12	22.87	23.34	19.29	20.07	19.76	20.51	20.98
	6H	22.06	22.70	22.56	23.19	23.67	19.84	20.48	20.33	20.97	21.45
	8H	22.19	22.76	22.70	23.27	23.76	20.04	20.61	20.55	21.12	21.61
	12H	22.28	22.79	22.79	23.28	23.84	20.20	20.71	20.71	21.20	21.76
12H	4H	21.65	22.34	22.13	22.82	23.29	19.35	20.04	19.83	20.52	20.99
	6H	22.05	22.63	22.57	23.14	23.63	19.91	20.49	20.43	21.00	21.48
	8H	22.22	22.73	22.73	23.22	23.79	20.16	20.67	20.67	21.16	21.72