

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: P997591

Luminaire Tested: SA2XXDP-B290DB50-4F0-XX-W2A-A

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997591
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-B290DB50-4F0-XX-W2A-A
Description: Define 2 Direct Recessed with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

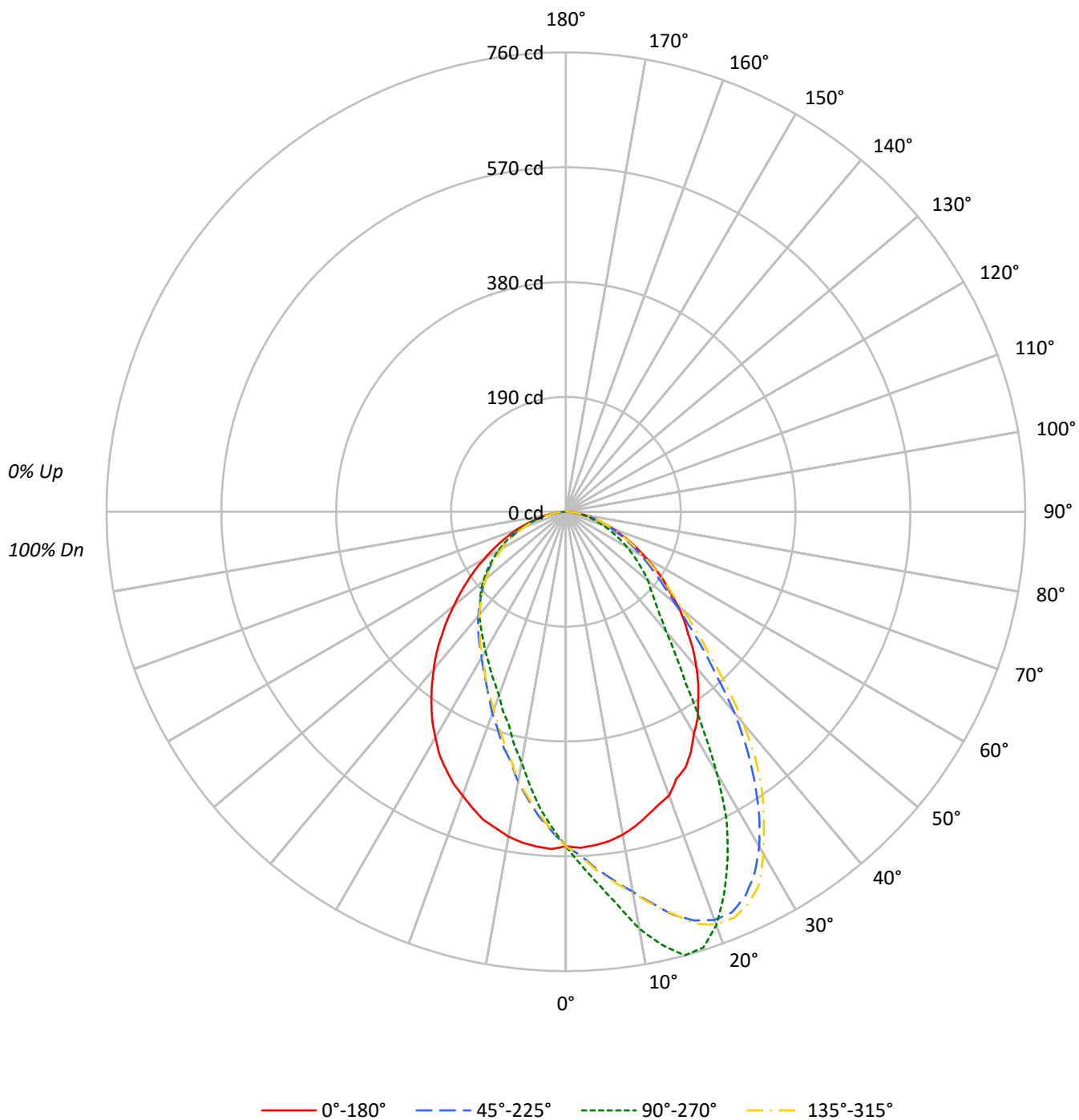
Lumens per Lamp: N/A
Luminaire Lumens: 1221.0 lumens
Efficiency: N/A
Efficacy: 93.9 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.09 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

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: P997591

CATALOG NUMBER: SA2XXDP-B290DB50-4F0-XX-W2A-A

Luminous Intensity Polar Plot



TEST NUMBER: P997591

CATALOG NUMBER: SA2XXDP-B290DB50-4F0-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
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°	8760	8760	8760	8760
5°	8800	9821	8835	7813
10°	8718	11255	8773	6762
15°	8525	12450	8645	5973
20°	8412	12260	8412	5446
25°	8165	11056	8202	5112
30°	7744	9135	7892	4867
35°	7374	6659	7496	4694
40°	6943	5319	7024	4598
45°	6409	4647	6514	4466
50°	5950	4369	5959	4379
55°	5423	4026	5459	4261
60°	4863	3691	4929	4081
65°	4367	3363	4446	3903
70°	3878	3050	3976	3642
75°	3327	2703	3462	3223
80°	2716	2325	2908	2598
85°	2016	2089	2161	1544

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 155°

Vertical Angle: 45°

Luminance: 11437 cd/sqm

TEST NUMBER: P997591

CATALOG NUMBER: SA2XXDP-B290DB50-4F0-XX-W2A-A

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.7	4.3
10°-20°	153.4	12.6
20°-30°	222.7	18.2
30°-40°	234.7	19.2
40°-50°	207.7	17.0
50°-60°	165.9	13.6
60°-70°	112.7	9.2
70°-80°	57.6	4.7
80°-90°	13.6	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°	428.8	35.1
0°-40°	663.5	54.3
0°-60°	1037.1	84.9
0°-90°	1221.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1221.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	553	553	553	553	553	
5°	554	618	556	492	554	53
15°	520	760	528	364	520	147
25°	468	633	470	293	468	214
35°	382	345	388	243	382	239
45°	286	208	291	200	286	222
55°	196	146	198	154	196	175
65°	117	90	119	104	117	116
75°	54	44	57	53	54	58
85°	11	12	12	8	11	14
90°	0	0	0	0	0	

TEST NUMBER: P997591

CATALOG NUMBER: SA2XXDP-B290DB50-4F0-XX-W2A-A

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4
2.5°	556.4	557.7	559.8	560.2	564.5	567.9	571.7	571.7	573.0	572.6	569.2
5°	553.8	557.7	563.2	567.9	575.5	578.9	584.0	587.9	591.3	593.8	593.4
7.5°	549.6	556.4	564.5	573.4	583.6	589.6	596.8	603.6	608.3	612.5	615.5
10°	542.4	553.8	564.9	576.8	590.0	598.1	606.6	615.5	622.8	630.8	638.5
12.5°	532.6	549.2	562.8	578.5	594.7	603.6	617.2	624.0	638.1	658.5	664.0
15°	520.2	542.8	555.5	575.5	596.8	604.0	622.8	633.8	662.7	675.5	690.8
17.5°	508.7	533.8	550.9	573.8	594.7	608.7	627.0	649.5	673.8	692.1	709.1
20°	499.4	523.6	544.1	569.6	596.0	613.8	633.0	660.2	686.6	705.3	718.5
22.5°	478.1	509.2	533.0	561.5	593.4	618.1	636.4	666.1	694.6	706.1	717.6
25°	467.5	494.3	521.9	554.3	591.7	621.0	636.8	670.0	695.1	699.3	701.9
27.5°	447.9	478.1	510.5	547.5	591.3	615.9	635.9	666.1	686.1	683.2	675.5
30°	423.7	460.7	496.4	536.4	585.3	612.1	630.8	658.5	668.7	653.4	639.8
32.5°	405.8	440.7	480.2	526.6	578.5	604.0	622.3	644.0	646.1	618.5	595.5
35°	381.6	420.3	464.9	513.9	567.0	590.0	607.0	620.2	610.0	571.3	544.1
37.5°	359.9	398.2	445.8	495.6	551.3	573.8	587.4	589.6	564.5	530.4	490.5
40°	336.0	375.6	425.4	477.7	533.8	553.4	561.9	555.5	519.4	479.8	433.5
42.5°	312.2	351.4	405.0	458.6	511.7	528.3	531.7	514.3	470.0	423.7	370.1
45°	286.3	327.1	380.7	434.7	486.2	495.6	496.0	470.9	418.6	370.1	320.3
47.5°	265.0	302.9	356.0	410.1	453.5	459.8	457.3	428.4	371.4	316.9	273.5
50°	241.6	277.8	330.5	383.7	420.7	422.4	416.0	374.8	319.0	269.3	234.8
52.5°	216.5	253.1	301.6	352.6	385.8	383.3	370.9	326.7	274.4	233.1	206.7
55°	196.5	228.9	274.4	324.1	347.5	340.3	326.7	281.6	240.3	205.5	182.5
57.5°	174.4	202.9	247.6	291.0	304.6	297.8	284.2	242.0	203.8	177.4	162.1
60°	153.6	179.5	218.6	254.8	265.4	258.2	242.5	204.6	177.0	154.8	143.4
62.5°	134.4	157.0	189.7	222.9	227.2	219.9	206.3	175.7	151.9	134.4	125.9
65°	116.6	137.8	164.2	189.3	193.1	185.5	171.4	149.3	129.3	118.3	110.2
67.5°	99.1	116.1	139.5	157.8	159.9	152.7	141.2	123.4	111.0	99.1	93.2
70°	83.8	96.6	114.9	129.7	130.6	123.8	117.8	101.7	92.3	83.8	79.1
72.5°	68.9	77.8	91.9	102.9	103.4	99.1	93.6	83.4	75.3	69.3	64.7
75°	54.4	62.1	70.6	80.4	80.0	76.6	72.3	65.9	59.1	55.3	53.2
77.5°	41.7	46.4	53.2	59.6	59.6	57.9	55.3	50.6	46.4	42.5	40.4
80°	29.8	32.8	38.3	40.4	41.3	40.8	38.7	35.3	33.6	30.6	29.8
82.5°	19.1	21.3	23.8	25.9	27.2	26.4	25.9	24.2	21.7	20.8	20.0
85°	11.1	11.9	13.2	14.5	14.9	14.5	15.3	14.0	12.8	12.8	12.3
87.5°	4.7	5.1	6.0	6.0	6.4	6.4	6.0	6.4	6.4	6.0	5.5
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: P997591

CATALOG NUMBER: SA2XXDP-B290DB50-4F0-XX-W2A-A

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4
2.5°	575.1	575.5	576.4	580.6	582.8	583.2	581.5	585.3	586.6	585.3	584.5
5°	602.3	604.9	610.0	615.5	615.1	615.5	618.1	620.6	621.5	618.1	619.3
7.5°	626.2	631.3	636.8	645.3	645.3	649.5	651.3	653.4	658.5	655.9	655.1
10°	653.4	660.2	670.4	684.0	684.4	688.7	692.9	699.7	701.9	700.2	701.0
12.5°	687.4	700.6	701.4	716.3	723.1	724.0	730.8	729.5	733.8	733.8	741.0
15°	702.3	722.7	734.2	748.7	752.9	747.8	753.3	759.3	759.7	759.7	759.3
17.5°	729.1	737.2	748.7	756.3	758.0	758.0	758.4	761.0	759.3	755.9	758.4
20°	734.6	738.0	742.3	741.4	742.3	738.0	733.8	729.5	729.9	727.8	734.2
22.5°	724.4	723.6	713.8	707.4	707.4	698.9	690.8	687.0	683.2	684.4	686.6
25°	698.9	685.7	673.8	664.4	662.3	648.7	637.6	634.2	627.9	633.0	633.8
27.5°	658.1	643.2	624.0	615.9	604.9	599.4	591.7	581.5	568.3	576.0	574.7
30°	614.2	592.1	576.4	556.8	539.4	538.1	523.6	506.6	499.8	499.8	503.6
32.5°	565.3	536.0	513.0	485.4	468.3	461.1	443.7	426.7	430.5	417.7	422.4
35°	508.3	469.6	440.7	413.9	401.1	392.6	370.1	360.7	350.5	344.6	355.6
37.5°	453.9	409.2	372.2	342.9	338.2	322.9	307.5	301.6	295.6	298.2	297.8
40°	387.5	348.0	314.8	291.8	283.7	276.5	266.3	259.1	255.2	257.4	257.8
42.5°	327.5	294.4	269.7	253.5	246.7	241.6	236.5	230.6	229.3	229.3	231.0
45°	281.2	253.9	237.4	224.2	220.3	216.5	212.7	210.1	209.3	207.6	208.9
47.5°	244.2	222.5	212.3	202.5	198.2	197.4	194.0	192.7	191.0	190.6	191.0
50°	213.1	199.5	190.1	184.6	181.6	180.4	178.7	176.1	175.3	177.4	176.5
52.5°	191.4	178.7	173.6	168.0	166.3	164.6	162.1	162.5	162.1	161.2	161.2
55°	169.7	161.6	156.5	152.3	151.9	150.2	148.0	147.2	146.8	145.9	147.2
57.5°	152.3	145.9	141.2	137.4	135.7	135.7	133.6	131.9	131.9	131.4	131.9
60°	134.8	128.5	125.5	121.7	120.4	120.0	118.7	117.8	116.6	116.6	116.6
62.5°	118.7	113.6	110.2	106.8	107.2	105.1	103.4	102.5	102.5	102.9	102.9
65°	103.4	100.0	95.7	92.7	91.9	91.5	90.6	90.2	88.9	89.8	89.8
67.5°	89.3	84.6	82.1	80.8	79.5	79.1	78.3	77.4	77.0	76.6	77.4
70°	75.3	71.5	69.3	68.5	67.2	66.8	66.4	65.1	65.5	65.9	66.4
72.5°	62.5	59.1	58.7	56.1	56.1	56.1	54.4	55.3	54.9	54.0	54.9
75°	49.3	47.6	46.8	45.5	45.9	45.5	45.1	43.8	43.8	44.2	44.7
77.5°	39.1	37.4	37.0	35.7	34.9	35.7	34.9	34.5	34.5	34.9	34.9
80°	28.9	28.1	26.8	26.8	26.8	26.4	26.4	26.4	25.9	25.5	25.9
82.5°	19.1	19.1	18.7	18.3	18.7	17.9	18.3	18.3	18.3	18.3	18.3
85°	12.3	11.9	11.9	11.5	11.5	11.5	11.9	11.1	11.1	11.5	11.5
87.5°	5.5	5.5	5.5	6.0	5.5	5.5	5.5	6.0	5.5	5.5	5.5
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: P997591

CATALOG NUMBER: SA2XXDP-B290DB50-4F0-XX-W2A-A

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4
2.5°	586.6	583.6	581.1	581.5	583.6	581.9	577.7	572.1	570.0	567.5	570.0
5°	621.9	619.3	614.2	614.7	613.4	611.7	604.9	596.4	596.4	589.6	588.7
7.5°	656.8	653.0	649.5	648.7	644.0	640.6	634.7	622.8	618.1	610.0	605.3
10°	695.9	692.9	689.1	684.4	681.9	675.9	666.1	648.7	640.2	629.1	621.0
12.5°	735.5	735.0	726.5	717.2	716.8	707.4	700.6	677.2	665.7	650.8	631.7
15°	760.6	758.4	753.8	749.1	750.4	740.2	724.8	697.2	689.5	671.7	651.3
17.5°	760.1	760.1	758.9	758.0	756.7	753.8	745.3	727.0	714.6	692.1	672.9
20°	735.9	741.4	742.7	742.3	746.5	748.7	748.2	736.8	727.0	707.0	687.4
22.5°	687.4	700.2	705.7	709.1	718.0	722.7	733.8	729.5	727.0	712.1	695.5
25°	642.3	646.6	663.2	664.0	676.3	687.8	698.9	706.1	715.5	710.0	695.9
27.5°	584.0	593.8	605.7	614.7	617.2	640.6	658.9	672.5	693.8	695.5	690.8
30°	518.1	522.8	542.4	554.3	567.9	584.9	611.3	634.7	653.8	671.2	677.2
32.5°	437.7	456.9	468.3	482.8	494.7	524.9	557.2	587.4	609.6	638.9	651.7
35°	364.1	379.0	398.6	404.5	426.2	451.7	493.9	532.6	566.2	596.0	621.9
37.5°	303.3	315.2	336.0	345.4	358.2	390.9	426.2	474.3	514.7	551.3	583.6
40°	261.6	270.5	286.3	289.3	299.9	329.7	358.2	403.3	456.9	506.2	541.5
42.5°	233.1	237.4	248.0	251.8	258.6	278.6	304.1	346.7	396.5	447.5	497.3
45°	212.7	215.7	222.0	225.4	234.0	242.9	263.7	297.8	336.9	388.4	442.0
47.5°	194.4	198.2	200.8	202.9	207.6	217.4	231.0	256.1	293.5	340.7	392.6
50°	179.1	180.4	185.0	185.5	188.4	194.8	207.6	222.9	252.7	291.0	341.2
52.5°	163.8	165.0	168.0	171.0	172.3	177.4	185.9	198.7	220.8	251.0	295.6
55°	148.5	150.2	153.1	155.3	156.5	160.8	165.9	178.2	195.7	216.9	253.5
57.5°	133.1	137.0	137.8	139.1	141.2	145.9	150.6	157.8	171.4	191.0	217.8
60°	118.7	120.0	122.9	124.2	126.3	128.9	134.8	140.4	150.2	165.5	189.7
62.5°	103.8	106.8	108.0	109.3	111.0	114.0	117.8	123.8	132.3	144.6	163.8
65°	91.0	91.5	94.0	95.7	97.4	99.5	103.4	108.9	114.0	125.5	139.5
67.5°	78.7	79.5	80.4	82.1	84.2	86.4	89.8	92.7	99.1	106.8	117.8
70°	66.8	66.8	68.9	70.2	69.8	72.3	74.9	78.3	82.9	90.2	99.1
72.5°	56.1	55.7	57.4	57.9	58.7	60.4	62.1	65.5	68.1	73.6	80.4
75°	44.7	45.5	46.4	46.4	47.6	48.9	50.6	52.3	55.3	58.7	63.8
77.5°	35.3	35.3	36.2	36.6	37.9	37.4	39.1	40.8	43.0	45.9	49.8
80°	25.9	26.8	26.8	26.8	27.2	27.6	29.4	30.6	31.9	34.0	35.7
82.5°	18.3	18.3	19.1	19.1	19.1	20.0	20.0	20.4	21.3	22.5	23.8
85°	11.5	11.5	11.5	11.9	11.5	11.9	12.8	12.3	12.8	13.6	13.6
87.5°	5.5	5.5	5.5	5.5	5.5	6.0	5.5	6.0	6.4	6.4	6.4
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: P997591

CATALOG NUMBER: SA2XXDP-B290DB50-4F0-XX-W2A-A

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4
2.5°	567.9	565.7	564.5	565.3	562.8	556.4	556.4	558.5	556.0	553.4	549.6
5°	583.6	579.4	576.8	576.4	570.4	560.2	558.1	556.0	550.4	544.5	538.1
7.5°	598.9	591.3	587.0	584.0	575.5	562.3	556.8	552.1	543.2	534.3	526.2
10°	611.7	600.6	595.5	590.8	579.8	563.2	554.3	545.8	534.3	522.8	512.6
12.5°	621.9	609.1	602.8	596.0	582.3	560.6	549.6	536.0	524.5	509.2	499.0
15°	638.9	612.5	606.6	600.2	586.2	556.4	542.8	527.5	511.7	491.3	480.2
17.5°	652.5	617.2	616.8	603.2	584.9	554.7	533.8	513.9	496.8	476.4	459.0
20°	660.6	624.5	617.6	603.6	580.6	543.2	521.5	499.4	481.1	456.4	439.0
22.5°	667.4	634.7	616.8	599.8	571.7	539.4	507.5	486.6	461.5	434.7	418.1
25°	670.0	636.8	618.1	598.5	565.3	528.3	492.2	469.6	441.5	417.3	394.7
27.5°	670.4	636.4	613.4	593.0	556.4	513.9	476.8	453.0	422.0	393.9	371.4
30°	666.1	631.7	610.8	588.7	547.9	500.7	458.1	431.8	398.6	370.5	347.1
32.5°	653.4	622.3	605.3	581.1	536.8	482.4	440.3	410.9	376.0	348.4	325.8
35°	632.1	610.8	592.1	569.6	522.4	465.4	422.4	387.9	352.6	326.3	305.0
37.5°	605.7	594.3	576.8	554.7	505.8	450.0	402.4	364.1	328.8	303.3	282.4
40°	570.0	573.0	556.0	536.0	486.2	429.2	376.5	339.9	306.7	282.9	262.5
42.5°	531.3	543.6	533.8	514.7	464.5	406.2	357.3	316.9	284.6	259.9	242.9
45°	489.6	510.9	504.9	490.9	442.0	382.0	330.1	291.0	262.5	238.6	223.7
47.5°	444.1	474.3	474.3	464.1	416.9	357.7	306.7	266.7	238.6	221.6	207.2
50°	397.7	431.8	437.3	430.5	388.8	330.1	278.2	242.0	217.8	201.2	190.6
52.5°	349.2	388.8	399.0	395.6	359.0	303.7	254.8	219.5	197.4	182.9	173.6
55°	302.9	348.8	359.9	361.1	327.1	274.8	228.9	197.8	176.5	166.7	158.7
57.5°	259.1	303.3	315.6	317.8	294.8	248.4	204.6	177.4	158.2	150.2	143.8
60°	221.6	258.6	274.8	279.5	259.5	217.8	182.1	155.7	141.2	133.6	127.6
62.5°	191.0	220.8	237.8	239.1	230.1	191.0	158.7	136.5	124.2	117.4	114.4
65°	161.2	188.0	198.2	203.3	196.1	165.5	137.0	118.7	108.9	102.9	100.0
67.5°	137.4	154.4	162.9	169.7	162.5	139.5	116.6	101.7	94.4	88.5	86.8
70°	112.7	126.8	133.1	139.9	133.6	116.1	99.5	85.9	79.5	74.9	72.7
72.5°	90.2	101.2	107.2	111.4	107.6	93.2	79.5	70.2	65.5	62.1	60.8
75°	71.5	79.1	82.5	85.5	83.8	72.7	64.2	56.6	52.3	49.3	48.5
77.5°	54.4	60.0	63.8	64.7	62.5	55.3	48.1	43.4	40.0	38.3	37.4
80°	38.7	42.1	44.2	45.5	43.4	40.4	35.3	31.9	28.9	26.8	26.4
82.5°	25.9	27.6	29.4	28.9	28.1	25.5	22.5	20.8	19.6	17.9	17.9
85°	14.9	15.3	16.2	16.6	16.2	14.5	12.8	11.9	11.1	9.8	9.8
87.5°	6.4	6.8	6.8	7.2	6.4	6.4	5.5	4.7	4.7	4.3	3.8
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: P997591

CATALOG NUMBER: SA2XXDP-B290DB50-4F0-XX-W2A-A

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4
2.5°	547.5	549.6	549.2	544.9	540.2	536.4	529.2	530.0	527.5	527.9	530.4
5°	533.8	533.8	532.1	526.2	518.5	514.3	506.2	504.1	499.0	498.5	498.1
7.5°	519.4	517.3	515.1	506.6	497.3	490.5	479.4	476.8	471.7	468.3	466.6
10°	502.4	499.4	495.1	485.4	473.9	465.4	453.9	450.5	440.7	436.4	433.9
12.5°	483.7	482.0	475.1	467.1	448.3	439.0	422.4	425.8	416.0	407.5	406.2
15°	464.9	458.6	454.7	441.5	419.0	414.7	401.6	394.7	385.8	379.0	379.0
17.5°	446.6	436.9	428.4	414.3	397.7	385.8	376.0	372.6	361.6	354.8	353.5
20°	422.4	411.3	409.2	389.2	377.7	364.5	355.2	346.7	338.6	335.6	333.5
22.5°	399.4	386.7	383.3	366.2	354.8	341.6	332.2	326.3	320.3	318.2	314.4
25°	374.8	367.1	362.0	343.7	330.9	318.6	312.2	308.0	302.4	302.0	299.5
27.5°	350.9	343.7	338.6	321.2	311.8	300.3	295.2	290.5	287.6	286.3	285.0
30°	330.5	322.4	316.5	303.7	292.2	282.9	278.6	275.6	273.9	271.8	271.4
32.5°	308.0	303.3	295.2	285.4	276.5	267.6	265.0	262.9	260.3	259.5	259.1
35°	288.8	282.4	277.3	266.3	262.5	254.8	251.8	250.1	246.7	245.9	245.0
37.5°	270.1	264.2	258.6	251.8	244.6	240.3	238.6	236.1	234.4	234.8	234.0
40°	251.4	246.7	242.5	235.2	231.0	228.9	225.4	222.9	222.0	222.5	222.0
42.5°	233.1	228.9	226.3	220.8	216.5	214.4	212.3	209.7	211.0	211.0	212.3
45°	216.5	212.7	211.0	206.7	204.2	200.8	198.7	198.2	199.9	199.5	199.5
47.5°	199.5	198.2	196.1	192.3	188.9	186.7	186.3	186.3	188.0	188.9	188.4
50°	186.3	183.8	181.2	178.2	175.7	174.8	173.6	174.4	176.1	176.1	177.0
52.5°	169.7	168.0	167.2	164.6	162.9	162.9	162.9	163.3	164.6	165.9	165.5
55°	155.3	154.0	153.1	151.9	149.7	150.2	149.7	150.6	151.9	153.1	154.0
57.5°	139.9	139.5	138.7	136.5	136.5	136.1	137.4	137.8	139.9	140.8	142.1
60°	126.3	125.1	125.1	123.4	123.4	123.4	124.6	125.9	127.6	128.0	128.9
62.5°	111.9	111.9	111.4	110.2	110.2	111.4	111.9	113.6	114.4	114.4	115.7
65°	98.3	97.8	97.4	97.8	98.3	98.3	99.5	100.4	101.2	101.7	102.1
67.5°	84.6	84.2	85.1	84.6	85.5	87.2	86.8	88.1	89.3	89.3	89.8
70°	71.9	72.7	72.3	73.2	72.7	73.6	74.9	75.3	75.3	75.7	77.0
72.5°	60.0	60.0	60.0	59.6	60.0	60.8	61.7	62.1	63.0	63.4	64.7
75°	48.5	48.5	47.6	48.5	48.5	49.3	50.2	50.2	50.2	51.0	52.3
77.5°	36.6	37.0	36.6	37.4	37.4	37.9	38.7	38.3	39.1	39.6	40.0
80°	26.8	26.4	26.4	26.4	26.8	26.8	27.6	28.1	28.1	29.4	28.5
82.5°	17.0	17.4	17.0	17.4	17.4	17.9	17.4	17.9	18.3	19.1	18.7
85°	9.8	9.4	9.4	9.8	9.4	9.4	9.8	9.4	9.8	9.4	9.8
87.5°	3.8	3.4	3.4	3.4	3.4	3.0	3.0	2.6	2.6	2.6	2.1
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: P997591

CATALOG NUMBER: SA2XXDP-B290DB50-4F0-XX-W2A-A

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4
2.5°	527.5	528.7	525.8	524.9	525.8	522.8	523.6	524.5	524.5	525.8	526.6
5°	496.8	495.1	492.2	491.3	490.5	491.7	490.9	492.2	492.6	495.6	496.0
7.5°	466.6	464.1	461.5	459.0	458.1	456.0	458.1	458.1	461.1	460.3	462.4
10°	430.9	430.5	427.1	425.8	424.1	420.7	425.4	424.1	426.2	430.1	430.9
12.5°	404.5	399.9	402.0	396.0	398.2	394.7	395.2	395.2	398.6	399.0	398.2
15°	379.4	375.6	370.1	367.5	366.2	364.5	370.1	370.5	368.0	373.9	371.8
17.5°	353.9	353.9	348.8	347.5	344.1	345.8	345.0	345.4	344.6	348.8	350.9
20°	331.8	329.7	328.0	328.4	324.1	323.3	322.4	323.3	326.3	329.2	330.1
22.5°	313.9	312.7	308.4	309.2	305.8	307.1	306.3	308.4	308.8	308.8	311.8
25°	296.9	295.2	295.6	293.9	292.7	292.7	291.4	292.7	294.4	295.2	295.6
27.5°	284.2	282.9	280.7	279.5	280.3	278.2	279.9	281.2	281.2	280.3	281.2
30°	268.8	269.7	269.7	265.4	267.1	266.3	267.6	268.4	268.4	268.8	268.0
32.5°	258.6	256.1	255.7	255.2	255.2	253.5	253.5	254.8	255.2	255.7	256.9
35°	245.0	245.0	242.9	244.2	242.5	242.9	242.5	242.9	243.7	242.5	243.7
37.5°	232.7	233.1	232.3	233.1	233.5	232.7	231.8	233.5	232.7	232.7	231.8
40°	222.0	221.6	222.0	222.0	222.0	222.5	221.6	221.6	221.6	220.8	219.9
42.5°	213.1	210.6	211.4	211.8	210.6	210.6	211.0	210.6	211.8	209.3	209.3
45°	200.4	199.5	199.9	199.9	200.8	199.5	200.4	200.8	199.5	199.1	198.2
47.5°	188.9	189.7	188.9	189.7	189.7	190.6	188.9	189.3	189.7	188.0	186.7
50°	177.4	177.4	178.7	178.2	178.7	177.8	177.8	177.4	177.8	177.0	175.7
52.5°	166.7	165.5	167.6	167.2	166.7	166.3	165.9	166.3	165.5	164.6	164.6
55°	153.6	153.6	154.8	155.3	155.3	154.4	153.6	154.0	153.6	153.1	152.7
57.5°	142.9	141.2	142.1	142.5	142.5	141.2	142.1	141.2	141.2	141.7	140.4
60°	129.3	129.3	128.5	129.7	129.7	128.9	128.9	129.3	128.5	128.0	127.6
62.5°	114.9	115.3	116.6	117.0	117.4	116.6	115.7	116.1	116.1	114.9	115.3
65°	102.5	103.4	105.1	104.6	103.8	104.2	103.4	103.8	102.5	102.9	101.7
67.5°	90.6	90.2	90.6	90.6	91.5	91.0	90.2	90.2	89.8	91.0	89.8
70°	77.8	77.8	77.8	77.8	78.3	78.7	77.8	77.0	77.4	76.6	76.1
72.5°	64.7	65.1	64.7	65.5	64.2	65.1	65.1	64.7	64.2	64.2	64.2
75°	52.3	53.2	51.9	52.3	51.9	52.7	52.3	52.3	51.5	51.0	51.5
77.5°	40.0	40.4	39.6	40.0	39.6	40.0	40.0	39.6	39.6	39.6	39.6
80°	28.5	28.9	28.5	28.1	27.6	28.5	27.6	28.1	28.5	28.1	28.9
82.5°	18.3	18.3	17.9	18.3	17.4	17.4	17.9	17.9	17.4	18.3	17.4
85°	8.9	8.9	9.8	8.9	8.5	8.5	8.5	8.9	8.5	9.4	8.9
87.5°	2.1	1.7	2.1	2.1	1.7	1.7	2.1	1.7	2.1	2.6	1.7
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: P997591

CATALOG NUMBER: SA2XXDP-B290DB50-4F0-XX-W2A-A

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4
2.5°	525.3	528.7	527.5	522.8	528.3	528.3	532.1	532.1	536.8	538.5	541.1
5°	495.6	498.1	500.2	498.1	501.9	507.9	511.3	514.3	520.7	523.2	527.0
7.5°	463.7	468.3	470.5	470.5	476.8	483.7	490.5	494.7	503.6	507.0	510.9
10°	432.6	438.1	442.4	442.0	452.6	456.9	465.4	475.1	484.1	489.2	494.7
12.5°	399.9	402.8	408.8	417.3	419.8	427.5	437.3	449.6	465.8	470.5	478.5
15°	372.6	380.7	385.4	389.2	395.2	402.4	413.0	425.0	441.1	451.3	459.8
17.5°	349.7	360.3	363.3	362.4	370.1	381.1	393.5	402.4	416.9	429.2	437.3
20°	330.9	335.2	340.3	342.4	348.4	360.3	372.2	382.4	394.3	404.1	413.5
22.5°	312.2	315.6	319.9	323.7	328.4	335.2	346.7	359.4	370.9	380.3	390.9
25°	296.9	299.0	302.9	305.8	310.9	315.6	323.7	337.7	351.4	356.9	366.2
27.5°	282.0	283.7	286.3	289.7	292.2	296.9	304.1	315.6	329.7	335.2	348.0
30°	268.8	270.1	272.7	274.4	275.6	281.2	286.7	295.6	306.3	313.9	323.3
32.5°	256.5	257.8	260.3	260.8	262.5	265.4	270.5	278.6	288.0	294.4	302.4
35°	242.9	243.7	246.3	247.1	248.4	251.0	254.8	260.8	269.3	273.9	281.2
37.5°	232.3	231.8	233.5	234.8	236.5	237.8	239.1	245.0	251.4	255.7	261.2
40°	220.8	219.9	220.3	222.0	222.9	224.6	224.6	230.6	234.8	238.2	242.5
42.5°	209.3	208.9	208.0	208.9	209.7	210.1	210.6	214.8	219.1	222.0	226.7
45°	197.8	197.4	196.5	196.9	196.9	197.8	199.1	200.8	203.8	206.3	208.9
47.5°	187.2	186.3	185.0	184.6	185.5	185.5	185.5	187.2	190.1	191.0	193.5
50°	176.1	174.8	173.1	172.3	172.3	171.9	172.7	173.1	175.7	176.5	178.7
52.5°	164.2	163.3	161.6	159.9	160.4	159.5	159.9	160.4	161.2	162.5	163.8
55°	152.3	150.6	149.3	148.9	147.6	147.6	146.3	148.0	147.6	148.0	149.7
57.5°	140.8	139.1	137.0	136.1	134.8	134.4	133.6	133.1	133.6	134.8	136.1
60°	127.2	126.3	125.1	123.8	122.9	121.7	120.8	120.8	120.4	120.4	120.8
62.5°	114.0	113.6	111.9	111.4	110.6	109.7	108.5	107.6	107.6	108.5	108.9
65°	101.2	100.8	99.5	99.1	97.0	96.1	95.7	95.3	94.4	94.4	94.4
67.5°	89.3	88.1	88.1	85.9	84.2	83.4	82.5	82.1	82.1	82.1	82.5
70°	76.1	76.1	74.9	73.6	71.9	72.3	71.0	69.8	69.8	68.9	69.3
72.5°	63.4	63.0	61.7	61.3	60.0	58.7	57.9	58.7	57.4	57.0	57.4
75°	51.0	50.6	49.8	48.9	49.3	48.1	46.8	46.4	46.4	45.5	45.5
77.5°	39.1	40.0	38.3	37.9	37.0	36.2	35.7	35.3	35.3	35.3	36.2
80°	27.2	27.6	27.6	26.8	27.2	25.9	25.9	25.9	24.7	25.1	25.5
82.5°	17.4	17.4	17.0	17.4	17.0	17.0	16.6	16.6	16.2	16.2	16.6
85°	9.8	9.4	8.9	9.8	9.4	9.4	8.9	8.9	8.9	8.9	8.9
87.5°	2.1	2.6	2.6	2.6	2.6	3.0	3.0	3.0	3.4	3.4	3.4
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: P997591

CATALOG NUMBER: SA2XXDP-B290DB50-4F0-XX-W2A-A

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	553.4	553.4	553.4	553.4
2.5°	543.2	543.2	549.6	556.4
5°	531.3	534.3	544.5	553.8
7.5°	519.8	524.9	537.7	549.6
10°	505.8	512.6	528.3	542.4
12.5°	492.2	498.5	516.8	532.6
15°	473.0	481.1	500.7	520.2
17.5°	453.9	462.0	485.8	508.7
20°	431.3	442.0	468.8	499.4
22.5°	410.5	423.7	453.5	478.1
25°	387.5	407.9	435.6	467.5
27.5°	367.1	387.5	415.6	447.9
30°	344.1	365.0	393.9	423.7
32.5°	322.0	341.2	369.2	405.8
35°	299.0	317.3	344.6	381.6
37.5°	278.2	296.1	325.8	359.9
40°	257.8	276.5	302.0	336.0
42.5°	238.6	255.2	278.2	312.2
45°	221.2	233.1	254.4	286.3
47.5°	202.9	213.5	233.1	265.0
50°	185.9	194.8	211.8	241.6
52.5°	169.3	177.0	192.7	216.5
55°	154.4	161.6	173.1	196.5
57.5°	139.1	144.6	155.7	174.4
60°	124.2	129.3	138.2	153.6
62.5°	109.3	113.6	122.1	134.4
65°	96.1	99.5	105.9	116.6
67.5°	83.4	85.5	90.6	99.1
70°	71.0	72.7	77.0	83.8
72.5°	57.9	59.6	64.2	68.9
75°	46.8	47.2	50.6	54.4
77.5°	36.6	36.2	38.7	41.7
80°	25.1	26.4	28.5	29.8
82.5°	17.0	17.4	18.3	19.1
85°	9.4	9.8	9.8	11.1
87.5°	3.8	4.3	4.3	4.7
90°	0.0	0.0	0.0	0.0

TEST NUMBER: P997591

CATALOG NUMBER: SA2XXDP-B290DB50-4F0-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	19.51	21.03	19.88	21.34	21.66	15.78	17.30	16.14	17.61	17.92
	3H	20.63	21.99	21.00	22.32	22.68	17.19	18.55	17.57	18.88	19.24
	4H	20.95	22.23	21.35	22.58	22.95	17.70	18.98	18.10	19.32	19.70
	6H	21.14	22.32	21.55	22.69	23.08	18.06	19.24	18.47	19.60	19.99
	8H	21.18	22.30	21.61	22.69	23.09	18.17	19.29	18.60	19.68	20.08
	12H	21.19	22.27	21.63	22.65	23.08	18.24	19.32	18.67	19.70	20.13
4H	2H	19.63	20.91	20.03	21.26	21.63	16.58	17.85	16.98	18.20	18.58
	3H	20.96	22.02	21.37	22.42	22.82	18.15	19.21	18.56	19.61	20.01
	4H	21.44	22.39	21.87	22.81	23.24	18.75	19.71	19.18	20.12	20.56
	6H	21.77	22.60	22.22	23.04	23.50	19.21	20.03	19.66	20.48	20.94
	8H	21.84	22.62	22.31	23.06	23.53	19.35	20.12	19.81	20.57	21.04
	12H	21.88	22.58	22.37	23.05	23.53	19.45	20.15	19.94	20.63	21.10
8H	4H	21.52	22.30	21.98	22.74	23.21	19.16	19.94	19.62	20.38	20.85
	6H	21.93	22.57	22.42	23.06	23.54	19.70	20.34	20.20	20.83	21.31
	8H	22.06	22.63	22.57	23.14	23.63	19.90	20.47	20.41	20.98	21.47
	12H	22.15	22.65	22.66	23.14	23.71	20.07	20.57	20.58	21.06	21.63
12H	4H	21.51	22.20	21.99	22.68	23.15	19.21	19.91	19.70	20.39	20.86
	6H	21.92	22.50	22.43	23.01	23.49	19.78	20.35	20.29	20.86	21.35
	8H	22.09	22.59	22.60	23.09	23.65	20.03	20.53	20.54	21.03	21.59