

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: P997722

Luminaire Tested: SA2XXRDP-B290DB50-4F0-XX-W2A-A

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997722
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-29)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXRDP-B290DB50-4F0-XX-W2A-A
Description: Define 2 Regressed Direct Recessed with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

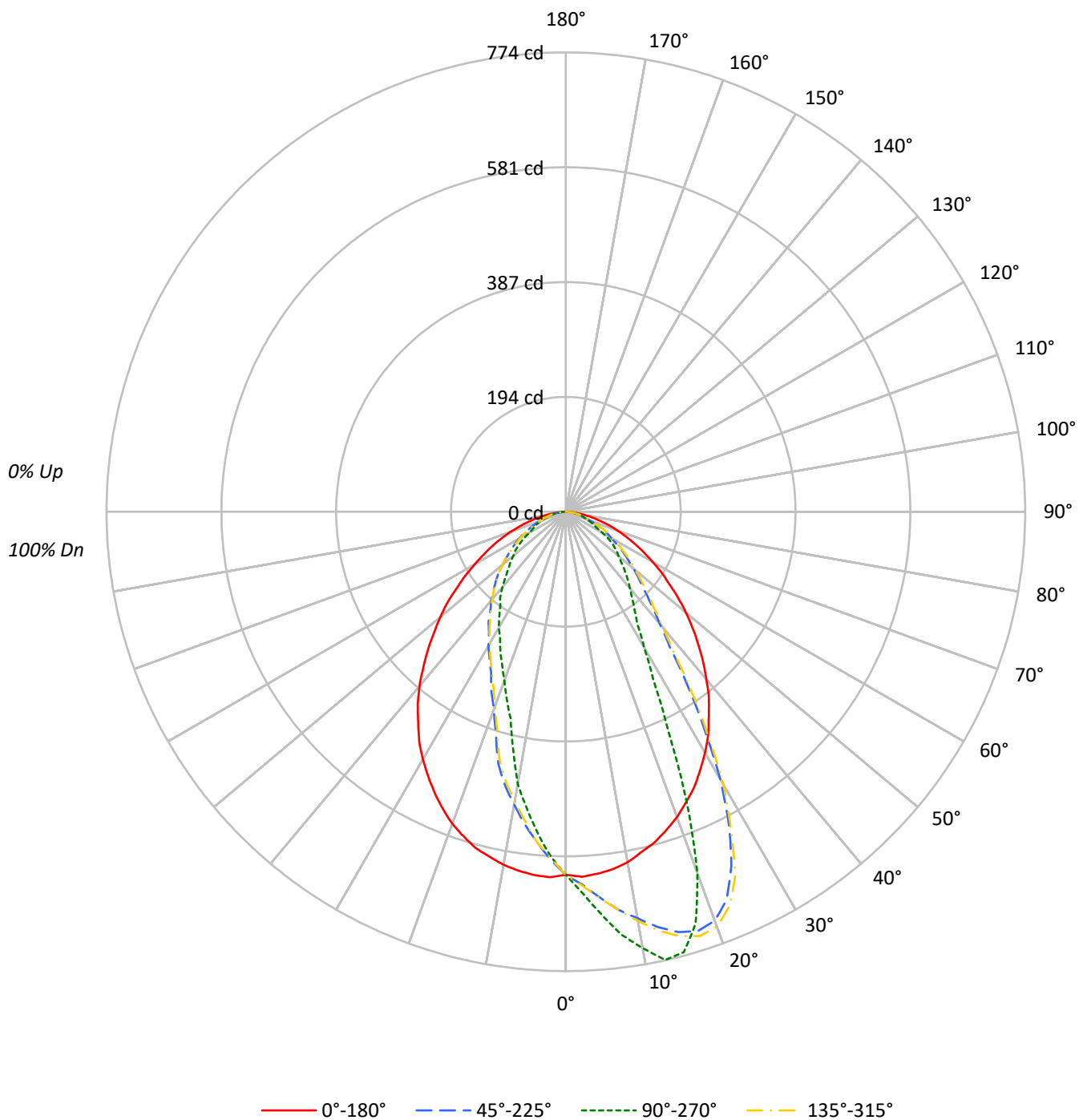
Lumens per Lamp: N/A
Luminaire Lumens: 1057.0 lumens
Efficiency: N/A
Efficacy: 81.3 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.85 / 1.01
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

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	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	111	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87		
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76		
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66		
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	59		
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52		
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47		
7	71	59	51	45	69	58	50	45	56	50	45	55	49	44	54	48	44	42		
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	50	44	40	39		
9	62	50	43	38	61	50	42	37	49	42	37	47	41	37	47	41	37	35		
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34	33		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	9681	9681	9681	9681
5°	9726	10813	9759	8638
10°	9639	11997	9708	7489
15°	9452	12587	9613	5900
20°	9223	10912	9423	5106
25°	8939	7156	9131	4559
30°	8569	4816	8803	4125
35°	8114	3902	8379	3720
40°	7606	3469	7931	3443
45°	7061	3141	7356	3074
50°	6501	2857	6804	2847
55°	5876	2685	6193	2652
60°	5328	2248	5610	2219
65°	4824	1895	5109	2150
70°	4267	1749	4605	2027
75°	3694	1639	4030	1871
80°	3063	1513	3291	1668
85°	2397	1398	2634	1471

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 160°

Vertical Angle: 45°

Luminance: 10629 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.0	5.5
10°-20°	161.9	15.3
20°-30°	208.4	19.7
30°-40°	197.7	18.7
40°-50°	169.5	16.0
50°-60°	129.0	12.2
60°-70°	81.4	7.7
70°-80°	40.6	3.8
80°-90°	10.4	1.0
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°	428.4	40.5
0°-40°	626.1	59.2
0°-60°	924.6	87.5
0°-90°	1057.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1057.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	612	612	612	612	612	
5°	612	680	614	544	612	58
15°	577	768	587	360	577	162
25°	512	410	523	261	512	235
35°	420	202	434	192	420	263
45°	315	140	329	137	315	243
55°	213	97	224	96	213	192
65°	129	51	136	57	129	128
75°	60	27	66	31	60	65
85°	13	8	14	8	13	16
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°	611.6	611.6	611.6	611.6	611.6	611.6	611.6	611.6	611.6	611.6	611.6
2.5°	615.5	618.0	619.3	621.0	624.8	627.4	631.2	632.0	631.6	633.3	628.6
5°	612.1	617.6	622.7	626.9	633.7	638.0	642.7	648.2	649.5	655.9	652.0
7.5°	607.4	615.5	622.7	631.2	641.4	646.9	654.2	662.7	666.5	674.1	676.3
10°	599.7	611.2	623.5	632.5	646.5	656.3	663.1	676.7	685.6	697.1	695.4
12.5°	587.4	602.3	618.9	633.7	652.0	658.4	671.2	685.2	696.7	707.3	716.6
15°	576.8	593.8	612.1	630.3	651.2	663.1	675.8	694.1	706.4	725.1	733.2
17.5°	562.3	584.0	605.7	626.1	650.8	664.4	680.1	697.9	716.2	734.1	740.4
20°	547.5	570.8	594.2	621.8	649.9	663.1	679.2	701.3	719.2	733.2	733.2
22.5°	529.6	558.1	584.9	611.2	641.8	661.0	677.5	703.5	716.2	719.2	707.7
25°	511.8	540.2	569.6	602.3	637.1	654.2	672.9	697.1	701.3	689.4	659.7
27.5°	490.5	522.4	555.5	590.8	627.4	648.6	665.6	681.8	673.7	641.8	595.5
30°	468.8	503.3	540.7	574.2	618.4	638.0	652.5	657.1	631.6	579.8	519.8
32.5°	446.3	479.9	519.4	559.8	604.4	623.1	632.5	620.1	573.4	507.9	434.8
35°	419.9	457.8	499.0	541.1	585.3	599.3	604.8	574.7	514.7	430.1	357.5
37.5°	396.1	434.0	478.2	521.1	564.0	571.7	566.2	519.0	442.9	359.2	288.2
40°	368.1	408.5	451.8	499.9	535.1	537.3	523.7	462.5	368.1	289.5	245.7
42.5°	342.2	383.0	426.3	475.2	502.0	494.8	476.5	396.1	307.3	249.5	214.2
45°	315.4	354.1	400.8	444.2	463.3	446.3	418.7	333.2	258.0	214.6	187.4
47.5°	289.5	325.6	371.9	413.6	417.0	397.8	365.1	279.3	223.6	188.7	166.6
50°	264.0	300.1	343.4	377.9	374.5	348.1	311.1	242.7	194.2	166.6	148.3
52.5°	238.5	271.2	313.3	340.5	326.0	300.5	264.0	205.7	169.6	145.4	131.3
55°	212.9	243.6	279.7	302.2	279.3	249.9	224.0	176.4	147.1	127.5	116.9
57.5°	191.7	215.9	249.1	262.7	235.1	212.1	189.6	151.7	127.5	113.5	101.2
60°	168.3	190.4	217.6	225.7	197.2	178.5	159.4	128.4	109.2	96.9	88.8
62.5°	148.3	166.6	187.4	187.4	162.4	148.3	133.9	107.5	91.8	82.0	78.2
65°	128.8	142.0	156.8	155.1	133.9	121.6	110.1	88.8	76.9	70.1	66.3
67.5°	109.7	119.9	129.6	123.7	108.4	97.8	87.1	71.8	63.8	59.1	54.0
70°	92.2	100.3	105.4	99.9	84.6	75.7	68.0	57.8	51.4	45.5	42.5
72.5°	77.4	80.8	82.5	75.7	62.9	57.8	52.3	45.1	39.5	36.6	35.7
75°	60.4	63.3	62.1	57.0	46.3	42.5	38.3	33.2	31.9	30.2	29.3
77.5°	47.2	47.2	45.1	40.4	33.2	30.2	28.5	25.9	24.7	24.2	23.4
80°	33.6	33.2	31.9	26.8	22.5	20.8	20.8	19.1	18.7	17.9	17.9
82.5°	22.1	22.1	20.4	16.2	14.9	14.5	14.0	13.2	13.2	12.8	12.8
85°	13.2	12.3	10.2	8.9	8.5	8.5	8.1	7.7	8.1	7.7	7.7
87.5°	6.0	4.7	3.4	3.4	3.4	3.4	3.4	3.4	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

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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	611.6	611.6	611.6	611.6	611.6	611.6	611.6	611.6	611.6	611.6	611.6
2.5°	633.3	634.2	635.4	641.4	642.2	643.9	643.1	643.1	643.5	642.7	643.1
5°	660.5	661.8	668.2	675.4	677.1	675.4	677.5	680.5	680.5	680.5	679.7
7.5°	686.0	690.7	697.9	708.6	710.7	712.8	716.6	714.1	714.9	718.8	717.5
10°	710.7	717.5	725.6	734.5	739.2	742.1	743.8	747.7	756.6	746.4	750.2
12.5°	734.1	743.8	752.3	762.1	765.5	769.3	770.6	774.0	774.0	773.6	776.6
15°	749.4	758.3	765.9	772.3	773.2	772.3	771.5	771.9	773.2	768.1	771.0
17.5°	752.8	753.6	756.2	753.6	754.0	745.1	740.0	738.7	726.8	727.3	737.0
20°	736.2	721.7	717.9	703.9	695.4	672.4	671.6	665.2	640.1	647.8	646.1
22.5°	690.7	666.1	633.3	617.2	609.1	584.9	566.2	553.0	544.1	535.1	531.3
25°	630.8	590.8	544.5	512.6	507.9	485.4	451.0	434.8	415.7	409.7	419.9
27.5°	553.4	501.6	449.3	400.4	391.5	371.1	353.6	342.2	320.1	318.8	319.6
30°	448.4	396.1	352.4	320.5	298.4	289.0	277.6	269.1	260.1	263.5	264.4
32.5°	368.5	318.8	278.0	261.0	250.8	244.8	235.1	229.5	225.7	224.4	224.0
35°	292.9	259.7	241.4	224.9	218.9	214.6	207.4	204.9	201.5	201.9	201.9
37.5°	250.8	223.2	209.5	201.0	195.5	193.4	188.7	186.2	184.0	183.2	184.5
40°	216.4	197.2	188.7	181.1	176.4	175.5	173.0	170.0	167.5	167.9	169.2
42.5°	191.3	180.2	170.0	164.1	160.7	159.4	157.3	155.1	155.1	153.9	153.4
45°	171.3	162.4	153.9	148.3	146.2	144.5	142.0	141.5	139.8	140.3	140.7
47.5°	153.4	146.2	139.8	134.3	132.2	131.8	129.2	127.5	127.5	127.1	126.7
50°	137.3	130.1	124.5	121.6	118.6	117.7	117.3	116.9	116.0	116.0	116.5
52.5°	124.1	116.9	112.6	110.1	108.4	107.5	107.5	107.1	107.1	107.1	106.7
55°	109.7	103.7	100.3	99.5	98.6	98.2	97.8	96.9	96.5	97.3	96.5
57.5°	96.1	93.9	91.0	90.1	88.0	88.0	86.7	85.9	85.0	85.9	85.9
60°	85.4	82.5	80.8	78.2	76.5	74.8	72.7	72.3	71.4	71.0	70.6
62.5°	74.4	71.8	67.6	63.8	61.2	59.5	58.7	58.2	58.2	57.8	57.8
65°	62.1	56.1	54.0	52.7	52.3	51.9	51.0	50.6	51.0	50.6	51.0
67.5°	48.5	47.6	46.3	45.5	45.1	44.6	44.6	44.2	44.2	44.2	44.2
70°	42.1	40.0	39.5	38.7	38.7	38.3	38.3	38.3	38.3	37.8	38.7
72.5°	34.9	33.6	33.2	32.7	32.7	32.7	32.3	32.3	32.3	31.9	32.3
75°	28.5	28.1	27.2	27.2	26.8	27.2	26.8	26.8	26.4	26.8	26.8
77.5°	23.0	22.5	22.1	22.1	21.7	21.7	21.7	21.7	21.7	21.7	22.1
80°	17.4	17.0	16.6	17.0	16.6	17.0	16.6	16.6	17.0	16.6	16.6
82.5°	12.8	12.3	12.3	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9
85°	7.7	7.2	7.2	7.7	7.2	7.7	7.2	7.2	7.2	7.7	7.7
87.5°	3.4	3.8	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	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

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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	611.6	611.6	611.6	611.6	611.6	611.6	611.6	611.6	611.6	611.6	611.6
2.5°	644.8	641.8	641.0	641.8	641.0	641.4	638.4	627.4	630.3	625.7	628.2
5°	681.4	678.8	673.3	672.4	671.6	670.7	666.5	656.7	652.9	646.5	646.1
7.5°	716.2	716.2	712.0	709.0	705.2	702.2	696.7	682.2	676.3	668.6	664.4
10°	750.6	739.6	744.3	741.3	731.9	730.2	720.0	711.5	700.1	692.4	685.6
12.5°	775.3	771.9	767.6	765.1	762.5	757.0	750.2	728.5	722.6	707.3	699.6
15°	774.4	772.3	773.6	773.6	772.7	771.5	765.9	750.2	740.0	725.1	712.0
17.5°	732.8	738.3	743.8	747.7	756.2	760.0	765.1	755.7	749.4	736.6	722.6
20°	660.1	673.7	689.9	693.3	700.9	723.4	733.6	741.7	744.3	740.0	728.5
22.5°	558.9	570.4	609.5	608.7	619.7	646.5	676.3	700.5	719.6	730.2	726.0
25°	437.8	454.0	474.8	490.5	526.6	566.6	603.6	642.2	675.4	704.7	712.0
27.5°	331.1	352.4	368.9	389.8	408.0	455.2	502.8	563.2	601.9	657.6	686.5
30°	267.8	277.6	294.1	303.9	312.8	349.0	402.9	462.5	530.5	594.6	644.4
32.5°	228.7	235.5	247.8	252.1	261.4	285.6	319.6	374.0	444.2	522.0	587.4
35°	205.3	212.5	215.1	218.9	226.6	241.9	265.2	304.8	368.1	444.2	522.4
37.5°	185.3	189.1	196.4	198.9	201.5	212.9	228.7	256.3	298.4	360.9	447.6
40°	171.3	173.4	177.2	179.4	181.1	189.1	203.2	221.9	252.9	300.5	380.4
42.5°	156.4	159.0	161.5	164.1	166.2	172.6	181.1	198.9	219.8	255.9	313.7
45°	142.0	143.7	146.6	148.3	151.3	156.4	164.1	176.4	195.1	218.1	264.8
47.5°	128.8	130.9	132.2	134.3	136.4	142.0	149.2	157.3	172.6	195.1	229.1
50°	116.9	119.4	121.1	121.6	123.3	128.4	134.3	143.2	153.0	170.4	200.2
52.5°	108.4	108.8	110.1	111.8	111.4	114.3	119.9	126.7	136.9	150.9	172.6
55°	98.6	99.9	100.7	101.2	101.2	103.7	106.7	113.1	121.1	132.6	150.9
57.5°	86.3	87.6	90.1	91.0	92.2	93.5	94.8	99.0	105.8	116.9	131.8
60°	73.5	74.4	76.9	78.6	79.5	82.9	84.6	88.0	91.8	99.9	113.9
62.5°	59.1	59.9	61.2	62.9	64.6	69.7	74.0	77.4	80.3	85.9	97.3
65°	51.4	51.9	52.7	53.1	53.6	55.7	59.5	64.2	69.7	74.0	80.8
67.5°	44.6	45.1	45.5	46.3	46.8	47.2	48.9	50.2	55.7	61.6	66.7
70°	38.3	39.1	39.5	39.5	40.0	40.8	41.7	43.4	45.1	48.0	54.4
72.5°	32.3	32.7	33.6	33.6	33.6	34.4	35.3	36.1	37.0	38.7	41.2
75°	26.8	27.6	27.6	27.6	28.1	28.1	28.9	29.8	30.6	31.9	32.7
77.5°	22.1	22.1	22.1	22.1	22.5	22.5	23.0	23.8	24.2	24.7	25.5
80°	16.6	17.0	17.0	17.0	17.4	17.4	17.4	18.3	18.7	18.7	19.6
82.5°	12.3	12.3	12.3	12.8	12.3	12.8	12.8	13.2	12.8	13.2	13.6
85°	7.7	7.7	7.7	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.5
87.5°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	4.3	3.8	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

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CATALOG NUMBER: SA2XXRDP-B290DB50-4F0-XX-W2A-A

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	611.6	611.6	611.6	611.6	611.6	611.6	611.6	611.6	611.6	611.6	611.6
2.5°	624.4	622.3	622.3	621.0	621.0	614.2	614.2	616.3	613.8	610.8	606.5
5°	640.5	635.9	634.6	632.9	627.4	618.9	615.5	614.2	609.1	602.7	595.5
7.5°	655.9	648.2	644.4	640.5	633.3	621.4	614.6	609.9	602.3	592.5	583.2
10°	670.7	661.0	651.2	646.5	636.3	621.4	611.6	604.0	592.9	579.8	566.6
12.5°	684.3	663.9	662.2	652.9	638.0	621.0	606.1	595.1	581.0	565.7	550.4
15°	696.2	675.4	665.2	656.7	637.1	615.9	600.2	586.6	567.9	550.4	531.7
17.5°	702.2	679.7	672.9	658.8	638.8	611.2	590.0	573.4	553.0	532.2	510.9
20°	708.1	681.8	670.7	661.0	633.7	602.3	578.5	559.4	536.8	512.2	488.8
22.5°	711.1	681.8	668.6	655.0	628.6	592.5	564.5	541.9	515.6	490.5	462.5
25°	706.0	679.2	663.5	649.5	619.7	580.6	548.3	522.8	494.8	466.3	437.8
27.5°	693.3	673.3	655.0	640.5	607.4	565.3	531.3	502.4	473.5	441.6	412.7
30°	669.5	660.5	646.1	629.9	593.8	551.7	511.3	481.6	449.7	417.8	387.6
32.5°	632.5	640.1	630.8	616.7	577.6	533.0	490.1	459.9	425.0	390.6	363.0
35°	587.4	614.6	609.5	599.7	560.6	513.0	470.1	433.6	398.7	363.8	336.2
37.5°	538.1	579.3	583.6	577.6	541.1	492.6	445.5	409.7	374.0	338.8	310.7
40°	470.5	533.9	547.5	550.0	520.7	468.0	418.7	383.8	348.5	314.1	280.1
42.5°	408.5	488.4	505.4	516.0	494.8	443.8	394.0	355.3	320.5	289.5	255.5
45°	350.2	433.6	461.2	474.8	465.4	416.1	364.7	328.6	296.7	268.2	235.5
47.5°	290.3	374.0	412.7	434.4	434.4	388.1	336.6	300.9	270.3	246.1	217.2
50°	250.4	320.1	360.0	388.5	396.1	359.6	311.1	276.3	247.4	221.0	198.9
52.5°	213.4	275.9	309.0	338.8	360.9	329.0	282.7	251.2	222.7	198.1	180.6
55°	184.5	231.2	261.4	294.1	318.8	298.0	255.0	224.4	199.8	179.4	164.5
57.5°	156.8	197.6	222.3	251.2	277.6	261.8	227.4	201.0	179.4	161.5	148.3
60°	133.5	166.6	185.7	208.3	241.0	230.0	201.5	177.2	159.8	143.7	132.6
62.5°	113.5	139.8	156.0	172.1	201.9	196.8	174.7	156.0	141.1	127.5	118.2
65°	93.1	114.8	127.5	141.5	165.3	167.5	149.6	136.4	122.8	110.9	102.4
67.5°	75.2	92.2	103.7	115.6	134.7	140.7	128.4	117.3	105.8	96.1	88.4
70°	60.8	72.7	81.2	90.5	106.3	113.5	107.1	99.5	90.1	82.0	75.2
72.5°	48.0	55.7	60.8	68.0	80.8	88.0	87.6	80.8	74.0	68.4	62.9
75°	35.3	41.2	45.5	50.2	60.4	67.2	68.9	65.9	59.1	54.8	50.6
77.5°	26.8	30.2	32.3	35.7	42.9	48.9	51.4	50.6	45.9	42.5	39.5
80°	20.4	21.3	22.1	23.4	29.3	34.9	36.6	36.1	33.6	32.3	28.9
82.5°	14.5	14.9	15.3	15.7	17.9	22.5	24.2	25.1	23.0	21.7	18.7
85°	8.5	8.9	8.9	9.8	10.2	11.5	14.5	14.5	14.0	12.3	11.9
87.5°	4.3	4.3	3.8	3.8	4.3	4.7	5.5	6.4	5.5	5.1	4.7
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: P997722

CATALOG NUMBER: SA2XXRDP-B290DB50-4F0-XX-W2A-A

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	611.6	611.6	611.6	611.6	611.6	611.6	611.6	611.6	611.6	611.6	611.6
2.5°	604.8	605.3	606.5	602.7	596.8	594.2	586.6	585.3	584.0	584.0	585.3
5°	591.2	589.5	590.0	582.7	574.2	569.1	558.5	560.2	554.7	551.3	552.1
7.5°	576.4	571.7	571.3	561.9	551.3	541.9	530.9	528.3	523.2	517.3	514.7
10°	557.7	554.3	547.9	537.3	523.7	516.0	501.1	492.2	490.9	482.0	478.6
12.5°	538.5	532.6	526.2	511.3	496.0	483.7	472.7	462.9	456.1	448.4	443.3
15°	516.4	509.2	502.0	486.3	468.4	456.1	439.5	425.0	405.1	389.3	380.4
17.5°	492.2	484.1	474.4	456.9	439.5	422.5	391.9	374.9	360.9	351.5	346.0
20°	467.1	458.2	448.4	431.0	400.8	371.1	354.1	340.9	332.4	323.0	316.2
22.5°	440.8	431.4	420.8	393.6	361.7	340.9	327.7	315.4	303.1	298.0	294.6
25°	416.1	407.6	394.0	357.0	332.0	312.8	298.0	289.9	283.5	276.7	270.3
27.5°	390.6	374.9	355.8	324.7	309.0	289.5	278.8	272.9	261.8	257.2	254.2
30°	360.0	342.6	324.3	302.2	283.9	270.3	260.6	250.8	244.4	239.7	234.6
32.5°	329.0	312.4	300.9	278.0	264.4	250.4	241.0	235.1	225.7	222.7	220.6
35°	302.2	288.2	278.0	259.3	246.5	233.8	227.0	218.1	212.1	206.6	203.2
37.5°	275.9	268.2	257.6	241.9	228.3	218.1	208.7	205.7	197.6	194.7	191.3
40°	257.6	246.1	237.2	223.6	212.1	201.0	195.1	188.3	182.8	178.1	176.8
42.5°	235.5	227.0	221.9	207.0	195.1	188.7	181.5	173.8	169.6	165.8	161.1
45°	218.9	211.2	204.0	192.1	181.5	173.4	167.0	161.9	154.7	153.0	145.8
47.5°	201.5	193.8	188.3	176.4	166.6	159.0	154.3	147.5	141.5	137.7	134.3
50°	184.0	177.7	172.6	162.4	153.9	145.8	139.4	132.6	130.1	123.7	121.6
52.5°	167.5	163.2	157.7	147.9	139.4	132.6	125.8	120.3	116.5	113.1	110.5
55°	153.4	146.6	144.1	133.5	126.2	119.0	113.1	109.7	105.0	102.9	100.7
57.5°	137.7	133.9	129.6	121.6	113.5	106.7	102.4	97.3	94.8	92.2	90.5
60°	124.1	118.6	115.2	108.4	101.2	94.8	91.0	87.1	83.7	81.6	78.2
62.5°	108.4	104.1	102.0	94.8	88.8	82.9	79.5	75.7	73.1	69.3	65.0
65°	94.8	91.4	88.8	82.9	77.4	71.8	68.4	63.8	60.4	58.2	57.8
67.5°	82.9	80.3	76.5	71.0	65.5	61.2	57.4	53.6	53.1	52.3	52.3
70°	69.7	67.2	65.0	59.1	54.4	49.7	48.9	47.6	46.3	45.9	45.1
72.5°	58.2	56.1	53.6	48.5	43.8	42.5	41.7	40.8	39.5	39.1	38.7
75°	47.2	44.2	42.5	37.8	36.6	35.7	34.9	33.6	32.7	32.3	31.5
77.5°	36.1	33.2	33.2	30.6	29.8	28.5	27.6	26.8	26.4	25.5	25.5
80°	25.5	25.5	24.7	23.4	22.1	21.7	20.4	20.0	19.6	20.0	19.1
82.5°	18.7	17.0	17.0	16.2	15.3	14.9	14.0	14.0	13.6	13.6	13.6
85°	10.6	10.6	10.2	9.4	8.9	8.9	8.5	8.5	8.1	8.1	7.7
87.5°	4.3	3.8	4.3	3.8	3.8	3.4	3.4	3.4	3.0	3.4	3.0
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: P997722

CATALOG NUMBER: SA2XXRDP-B290DB50-4F0-XX-W2A-A

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	611.6	611.6	611.6	611.6	611.6	611.6	611.6	611.6	611.6	611.6	611.6
2.5°	585.3	584.4	581.9	582.7	581.5	581.5	580.6	580.6	580.6	582.7	581.5
5°	553.4	550.4	547.5	546.2	544.9	543.6	543.6	543.2	547.0	546.2	549.6
7.5°	513.9	513.0	507.1	507.1	505.0	504.1	506.2	506.7	507.1	507.9	510.1
10°	478.6	476.5	468.0	468.8	467.6	465.9	467.1	466.3	469.3	470.1	469.3
12.5°	437.0	433.1	423.8	419.1	414.0	410.2	414.8	411.4	423.3	426.7	436.1
15°	381.7	374.5	368.1	368.1	363.4	360.0	362.1	366.0	368.5	372.3	374.0
17.5°	344.7	341.7	336.6	333.7	332.4	331.1	331.1	332.8	338.3	337.9	341.3
20°	313.3	311.6	309.0	305.2	303.9	303.1	303.1	303.1	306.9	310.3	312.4
22.5°	291.6	290.3	288.6	283.5	281.0	280.1	282.2	283.5	286.5	289.0	291.2
25°	269.9	266.9	264.0	262.3	261.0	261.0	261.8	262.3	263.5	264.8	267.4
27.5°	252.1	249.9	245.7	241.0	241.0	239.7	240.6	241.4	244.4	248.7	250.8
30°	232.1	231.7	230.0	228.3	226.6	225.7	227.4	228.7	229.1	231.2	231.2
32.5°	217.6	214.6	211.7	210.0	209.1	208.7	209.1	210.8	210.8	213.4	216.4
35°	203.2	201.5	198.5	195.5	194.7	192.5	194.2	195.9	198.9	200.2	201.5
37.5°	187.4	185.3	184.0	183.2	181.5	181.9	180.6	183.2	185.7	185.3	186.2
40°	175.5	171.7	167.9	167.5	167.0	166.6	166.6	167.0	168.7	170.4	173.0
42.5°	160.2	159.0	155.6	152.2	151.3	150.5	149.6	151.3	154.7	157.7	159.0
45°	144.5	142.8	142.0	139.4	137.7	137.3	136.4	138.6	141.5	142.8	143.7
47.5°	130.1	129.6	127.1	127.5	126.2	126.7	126.2	127.5	127.5	128.8	129.6
50°	120.3	119.0	117.7	116.9	115.6	115.6	115.2	115.6	117.3	119.0	118.6
52.5°	110.5	108.4	108.0	107.5	106.7	107.5	106.3	106.7	108.4	109.2	108.8
55°	99.0	98.6	97.8	96.9	96.5	96.1	96.1	96.1	97.8	99.0	99.5
57.5°	90.1	88.0	86.3	86.3	84.6	84.2	85.0	85.4	86.7	87.6	88.4
60°	77.8	76.9	74.4	73.1	70.6	70.1	70.1	71.8	74.0	76.9	77.8
62.5°	64.6	63.3	62.9	62.9	62.9	62.9	62.9	62.9	62.9	63.3	63.3
65°	57.4	57.8	57.4	57.0	57.4	57.4	57.0	57.0	57.0	57.4	57.8
67.5°	51.4	51.0	51.4	51.0	50.6	50.6	50.2	50.6	51.0	51.4	51.4
70°	44.6	44.6	44.2	44.6	44.2	43.8	43.4	43.4	44.2	44.6	44.6
72.5°	38.3	38.3	37.8	37.8	37.0	37.0	37.4	37.0	37.0	38.3	38.3
75°	31.9	31.5	31.0	31.0	30.6	30.6	30.6	30.2	31.0	31.0	31.5
77.5°	25.1	25.1	25.1	24.7	24.7	24.2	24.2	24.7	24.7	24.7	25.1
80°	19.1	19.1	19.1	18.7	18.3	18.3	18.3	18.3	18.3	18.7	18.3
82.5°	13.2	13.2	13.2	13.2	13.2	12.8	12.8	12.8	13.2	13.2	12.8
85°	8.1	7.7	8.1	8.1	7.7	8.1	7.7	7.7	7.2	7.2	7.7
87.5°	3.4	3.0	2.6	2.6	3.0	2.6	2.6	2.6	3.0	2.6	2.6
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: P997722

CATALOG NUMBER: SA2XXRDP-B290DB50-4F0-XX-W2A-A

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	611.6	611.6	611.6	611.6	611.6	611.6	611.6	611.6	611.6	611.6	611.6
2.5°	582.7	584.9	584.0	579.3	584.0	585.3	587.8	590.4	592.1	594.6	596.8
5°	546.2	550.4	553.0	550.4	558.9	560.2	566.2	569.6	574.7	578.9	582.3
7.5°	511.8	515.2	520.3	521.1	526.2	532.2	540.7	549.2	557.2	561.5	565.3
10°	474.8	480.7	488.4	486.7	494.3	503.7	512.6	526.2	533.0	540.7	547.5
12.5°	437.8	441.6	451.8	455.2	466.3	473.5	485.8	494.3	511.3	520.3	526.2
15°	373.2	388.9	401.7	417.0	431.4	445.0	456.1	471.4	486.3	493.1	502.8
17.5°	343.9	351.1	358.7	366.4	385.1	409.3	428.9	445.5	458.2	467.1	478.6
20°	313.3	320.5	329.0	336.2	347.7	365.1	389.3	417.8	433.1	442.5	453.5
22.5°	291.6	298.4	303.9	310.3	319.2	332.0	350.2	385.5	405.9	417.4	427.2
25°	268.2	276.7	282.7	287.3	294.6	308.6	323.5	343.4	380.0	388.9	402.5
27.5°	252.1	254.6	261.4	268.6	275.9	283.5	298.8	315.8	340.5	360.0	376.6
30°	232.9	239.3	245.7	248.7	255.0	266.1	275.4	293.7	312.8	328.1	348.1
32.5°	218.5	222.3	226.6	233.8	239.7	247.4	256.7	272.0	288.2	298.0	313.3
35°	202.3	204.9	213.8	216.8	222.7	230.4	239.7	251.6	269.1	276.7	287.8
37.5°	187.0	193.0	195.5	202.3	207.8	215.5	222.3	235.9	247.4	256.3	266.5
40°	175.1	177.7	182.3	188.3	193.0	198.9	207.4	217.2	229.5	236.8	245.7
42.5°	160.7	162.8	168.7	172.1	179.8	185.3	190.4	202.3	213.4	218.9	227.8
45°	144.9	150.0	153.9	160.7	164.9	171.7	178.1	186.6	196.8	203.2	208.3
47.5°	131.3	136.4	140.3	146.6	153.4	156.4	163.2	172.1	181.5	186.6	193.8
50°	120.3	122.0	129.2	132.2	139.4	145.4	150.0	157.7	167.9	170.9	176.8
52.5°	109.7	110.9	115.6	119.4	125.8	130.9	136.9	144.1	152.6	157.3	161.9
55°	100.3	101.2	103.3	107.5	111.8	118.2	123.7	130.5	137.7	142.8	147.1
57.5°	89.7	91.4	93.1	95.6	99.9	105.8	111.8	118.2	124.1	127.5	133.0
60°	77.4	79.9	82.9	85.9	88.8	93.1	99.9	105.8	111.4	114.3	118.6
62.5°	64.2	69.3	71.8	75.2	77.8	81.6	86.7	93.5	97.3	101.2	104.6
65°	57.8	58.2	58.7	62.1	66.7	70.6	75.2	80.3	86.3	88.8	91.4
67.5°	51.4	51.9	52.7	53.1	54.8	59.1	64.2	69.7	74.4	76.1	78.6
70°	45.1	45.1	46.8	47.2	47.6	48.0	52.3	57.8	62.1	64.2	67.2
72.5°	38.3	38.7	39.5	40.0	40.8	41.7	42.9	45.9	51.0	53.1	56.5
75°	31.5	31.9	32.3	32.7	34.0	34.4	35.7	37.4	39.5	42.1	44.2
77.5°	25.1	25.1	25.5	26.4	27.2	27.6	28.9	29.8	30.6	31.9	33.6
80°	18.7	19.1	19.1	20.0	20.0	20.4	20.8	22.1	23.0	23.8	24.7
82.5°	12.8	13.6	13.6	13.6	14.0	14.5	14.9	14.9	15.7	16.2	17.4
85°	7.7	8.1	8.1	8.1	7.7	8.5	8.5	8.9	8.9	8.9	9.4
87.5°	3.0	2.6	3.0	3.0	3.0	3.4	3.0	3.0	3.4	3.8	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: P997722

CATALOG NUMBER: SA2XXRDP-B290DB50-4F0-XX-W2A-A

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	611.6	611.6	611.6	611.6
2.5°	600.6	599.3	607.0	615.5
5°	588.3	590.4	600.2	612.1
7.5°	575.5	580.2	591.7	607.4
10°	557.7	566.2	583.6	599.7
12.5°	540.2	551.7	568.3	587.4
15°	520.7	533.4	553.8	576.8
17.5°	499.0	513.5	537.3	562.3
20°	476.1	495.2	520.3	547.5
22.5°	450.6	473.5	499.4	529.6
25°	425.9	451.0	476.9	511.8
27.5°	401.7	426.3	455.2	490.5
30°	377.4	400.0	431.0	468.8
32.5°	351.5	374.9	407.6	446.3
35°	327.7	351.1	381.7	419.9
37.5°	302.2	327.3	356.6	396.1
40°	272.5	301.8	330.3	368.1
42.5°	247.8	278.8	306.5	342.2
45°	228.3	257.6	280.5	315.4
47.5°	210.0	233.8	257.2	289.5
50°	192.5	210.8	235.1	264.0
52.5°	174.7	190.4	211.2	238.5
55°	158.5	173.4	192.1	212.9
57.5°	143.7	154.3	173.0	191.7
60°	127.1	138.1	152.6	168.3
62.5°	113.1	121.6	135.2	148.3
65°	98.2	106.3	116.5	128.8
67.5°	84.6	91.8	99.9	109.7
70°	72.3	77.8	83.7	92.2
72.5°	59.1	65.0	70.6	77.4
75°	48.5	51.0	55.7	60.4
77.5°	37.4	40.8	43.4	47.2
80°	26.8	29.8	30.6	33.6
82.5°	17.9	19.6	21.3	22.1
85°	10.2	11.1	12.8	13.2
87.5°	3.8	4.3	5.1	6.0
90°	0.0	0.0	0.0	0.0

TEST NUMBER: P997722

CATALOG NUMBER: SA2XXRDP-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	18.92	20.38	19.29	20.69	21.00	13.34	14.79	13.70	15.10	15.42
	3H	20.25	21.55	20.63	21.88	22.24	14.47	15.77	14.85	16.09	16.46
	4H	20.68	21.90	21.08	22.25	22.63	14.93	16.14	15.33	16.49	16.87
	6H	20.95	22.08	21.37	22.44	22.84	15.30	16.43	15.72	16.79	17.19
	8H	21.03	22.09	21.45	22.48	22.89	15.43	16.49	15.86	16.88	17.29
	12H	21.07	22.09	21.50	22.47	22.90	15.51	16.53	15.94	16.92	17.34
4H	2H	18.90	20.12	19.30	20.47	20.85	14.02	15.24	14.42	15.59	15.97
	3H	20.35	21.35	20.76	21.75	22.15	15.31	16.32	15.72	16.72	17.12
	4H	20.85	21.75	21.28	22.17	22.61	15.87	16.78	16.30	17.19	17.63
	6H	21.23	22.01	21.69	22.45	22.92	16.35	17.14	16.81	17.58	18.04
	8H	21.34	22.07	21.80	22.52	22.98	16.52	17.25	16.98	17.69	18.16
	12H	21.41	22.07	21.90	22.55	23.02	16.64	17.29	17.12	17.77	18.24
8H	4H	20.84	21.57	21.30	22.02	22.48	16.19	16.92	16.66	17.37	17.84
	6H	21.26	21.86	21.76	22.35	22.83	16.77	17.38	17.27	17.87	18.35
	8H	21.40	21.94	21.92	22.45	22.94	17.00	17.54	17.52	18.06	18.55
	12H	21.52	21.99	22.03	22.49	23.05	17.20	17.67	17.71	18.17	18.73
12H	4H	20.82	21.47	21.30	21.95	22.42	16.23	16.88	16.71	17.36	17.83
	6H	21.23	21.77	21.75	22.28	22.77	16.83	17.38	17.35	17.89	18.38
	8H	21.41	21.89	21.92	22.38	22.95	17.12	17.60	17.63	18.09	18.66