

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: P1000452

Luminaire Tested: SA4XXRDP-B350DB2750-4F0-XX-W2A-A_3000K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P1000452
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-31)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA4XXRDP-B350DB2750-4F0-XX-W2A-A_3000K
Description: Define 4 Regressed Direct Recessed with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

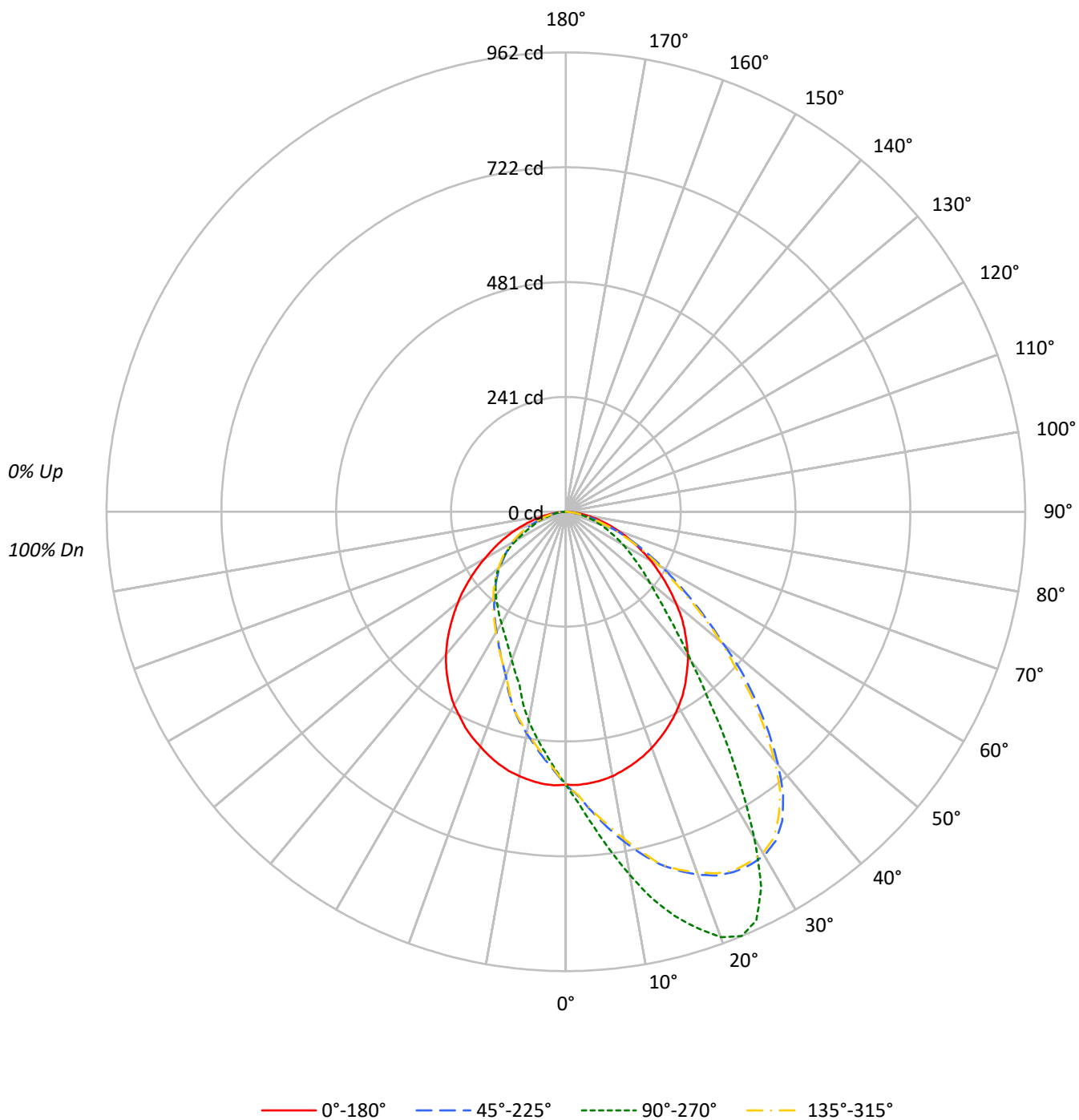
Lumens per Lamp: N/A
Luminaire Lumens: 1445.0 lumens
Efficiency: N/A
Efficacy: 111.2 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.38
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Direct

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	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86		
2	101	93	87	82	98	92	86	81	88	83	79	85	81	77	82	79	76	74		
3	93	83	76	70	90	81	75	69	79	73	68	76	71	67	73	69	65	63		
4	85	74	66	60	83	73	65	59	71	64	59	68	63	58	66	61	57	55		
5	79	67	58	52	77	66	58	52	64	57	51	62	56	51	60	55	50	48		
6	73	61	52	46	71	60	52	46	58	51	46	56	50	45	55	49	45	43		
7	68	55	47	41	66	54	47	41	53	46	41	52	45	40	50	44	40	38		
8	64	51	42	37	62	50	42	37	49	42	37	47	41	36	46	40	36	34		
9	59	47	39	33	58	46	38	33	45	38	33	44	38	33	43	37	33	31		
10	56	43	35	30	55	43	35	30	42	35	30	41	34	30	40	34	30	28		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	4661	4661	4661	4661
5°	4672	5407	4679	4132
10°	4657	6397	4654	3688
15°	4612	7389	4612	3169
20°	4565	8226	4541	2866
25°	4505	8492	4484	2661
30°	4442	7434	4407	2538
35°	4347	5787	4292	2463
40°	4241	4339	4158	2422
45°	4058	3426	3958	2401
50°	3839	2892	3734	2332
55°	3601	2521	3483	2206
60°	3366	2269	3214	1954
65°	3066	1999	2968	1681
70°	2801	1800	2668	1516
75°	2511	1509	2338	1292
80°	2165	1277	1968	1212
85°	1768	1076	1469	1076

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 35°

Vertical Angle: 45°

Luminance: 6969 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.4	3.8
10°-20°	167.2	11.6
20°-30°	261.8	18.1
30°-40°	290.8	20.1
40°-50°	257.6	17.8
50°-60°	200.8	13.9
60°-70°	131.3	9.1
70°-80°	64.4	4.5
80°-90°	15.7	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°	484.3	33.5
0°-40°	775.1	53.6
0°-60°	1233.5	85.4
0°-90°	1445.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1445.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	572	572	572	572	572	
5°	571	660	572	505	571	54
15°	546	875	546	375	546	154
25°	501	944	498	296	501	231
35°	437	581	431	247	437	273
45°	352	297	343	208	352	271
55°	253	177	245	155	253	227
65°	159	104	154	87	159	158
75°	80	48	74	41	80	85
85°	19	12	16	12	19	23
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°	571.6	571.6	571.6	571.6	571.6	571.6	571.6	571.6	571.6	571.6	571.6
2.5°	572.5	577.6	580.4	582.7	587.3	589.1	592.8	593.7	597.4	597.0	595.6
5°	570.7	579.5	585.9	592.8	601.1	605.7	610.8	618.1	621.8	626.9	630.1
7.5°	567.5	579.5	590.0	600.6	614.0	621.4	627.8	639.3	649.0	657.3	666.5
10°	562.4	577.6	593.3	607.6	626.0	634.7	644.4	661.4	674.8	686.3	701.1
12.5°	554.6	575.8	593.3	612.6	636.1	648.1	661.0	681.3	696.9	715.8	734.2
15°	546.3	569.8	592.8	618.1	644.9	658.7	671.6	698.8	722.7	744.4	764.6
17.5°	537.1	562.9	588.2	616.3	648.5	665.6	680.8	713.5	739.7	767.8	788.1
20°	526.0	554.1	583.1	614.5	650.9	669.7	686.8	724.1	753.1	783.5	808.8
22.5°	514.0	544.4	576.2	610.3	648.1	668.8	688.6	728.7	762.3	790.4	824.5
25°	500.7	532.9	565.6	601.6	643.9	666.5	686.8	726.4	762.3	799.2	832.3
27.5°	486.9	520.0	554.1	591.9	635.2	657.3	680.3	718.6	760.5	800.6	834.2
30°	471.7	503.9	539.8	575.8	621.8	643.9	667.4	708.9	754.5	794.6	831.0
32.5°	455.1	488.3	522.3	559.6	604.8	628.7	650.4	697.4	743.9	783.5	817.6
35°	436.7	468.0	500.2	538.5	583.1	604.8	630.6	679.4	726.4	768.3	790.4
37.5°	416.9	446.8	476.7	514.5	557.3	583.6	608.9	658.2	708.0	736.1	747.6
40°	398.4	424.7	450.9	487.3	530.6	557.8	583.6	634.7	678.5	700.1	691.4
42.5°	374.9	402.1	425.6	459.2	503.0	528.3	554.6	607.6	643.0	651.8	630.1
45°	351.9	374.5	397.1	429.8	475.8	497.5	525.6	574.8	604.3	596.5	564.7
47.5°	329.3	347.8	369.0	400.7	442.2	468.0	494.2	537.1	557.8	546.8	502.5
50°	302.6	321.0	343.2	370.8	410.9	435.7	456.5	496.1	511.7	484.6	431.1
52.5°	277.3	293.4	312.3	338.1	376.3	398.9	421.5	455.5	460.6	429.3	373.1
55°	253.3	266.2	286.0	306.8	341.8	365.7	381.4	410.4	409.0	369.9	321.5
57.5°	228.5	240.4	253.8	275.4	308.6	326.6	343.6	369.0	355.6	322.4	274.5
60°	206.4	213.3	226.6	247.4	275.4	291.1	304.5	318.3	306.8	270.8	234.0
62.5°	181.9	189.8	199.4	216.0	240.9	255.6	265.3	271.3	259.3	231.7	198.1
65°	158.9	165.8	176.0	190.7	209.6	220.6	225.7	229.8	223.4	192.1	165.4
67.5°	138.2	142.8	152.0	161.7	181.9	184.7	191.6	193.5	180.6	156.6	135.4
70°	117.5	122.1	126.2	137.7	146.9	152.0	153.4	153.4	140.5	124.8	107.3
72.5°	98.1	100.9	105.0	112.9	117.9	121.6	123.4	121.1	109.2	96.3	83.4
75°	79.7	81.1	84.8	89.8	94.0	92.6	92.1	89.4	80.6	71.4	64.0
77.5°	61.3	62.2	66.3	67.7	67.7	69.1	67.2	64.5	57.1	50.2	47.0
80°	46.1	47.4	47.9	48.8	47.9	47.9	46.5	41.9	38.2	35.0	32.7
82.5°	31.8	32.7	33.2	31.8	32.7	31.3	29.0	25.8	23.5	23.0	22.1
85°	18.9	19.3	18.9	18.9	17.5	17.0	15.2	14.7	13.8	13.8	13.4
87.5°	9.2	8.8	7.8	6.9	6.9	6.4	6.9	6.0	6.9	6.4	6.0
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°	571.6	571.6	571.6	571.6	571.6	571.6	571.6	571.6	571.6	571.6	571.6
2.5°	599.3	604.3	604.8	609.4	608.0	605.7	609.9	607.1	612.6	610.8	613.1
5°	634.3	641.2	647.2	650.9	657.3	655.9	662.8	660.5	665.6	660.5	667.0
7.5°	675.3	686.8	692.8	702.4	705.2	705.7	714.0	715.8	719.0	715.8	719.5
10°	715.3	729.2	743.0	750.8	755.9	762.8	770.2	773.4	775.7	772.5	774.8
12.5°	751.7	773.4	788.6	804.2	807.9	813.9	821.7	820.8	830.0	828.2	832.3
15°	785.4	809.3	827.7	840.2	850.3	855.4	870.1	871.0	870.6	875.2	872.4
17.5°	815.3	835.6	861.8	877.9	890.4	890.4	898.7	915.7	914.3	913.9	916.6
20°	839.7	862.7	887.1	914.3	924.5	926.3	937.8	946.6	947.9	947.9	947.9
22.5°	858.1	885.3	911.6	930.9	938.7	945.2	955.3	960.8	962.7	961.8	962.7
25°	867.3	893.1	919.9	937.4	942.0	945.6	946.6	949.8	949.3	943.8	947.0
27.5°	869.2	894.1	911.6	916.2	913.9	911.6	896.8	898.2	894.1	885.8	889.0
30°	860.9	874.2	873.8	859.5	855.4	845.7	832.3	812.5	796.4	789.5	791.8
32.5°	831.0	831.0	814.4	782.1	767.8	750.3	726.4	708.4	687.2	682.6	691.4
35°	789.5	766.0	735.6	693.2	671.6	658.7	617.2	604.3	586.4	581.3	585.4
37.5°	725.0	685.9	641.6	602.0	583.6	560.6	524.2	505.8	492.9	484.1	488.3
40°	652.7	605.2	559.2	510.4	490.1	471.2	444.0	427.5	406.7	407.6	409.0
42.5°	583.6	527.9	476.3	431.1	411.8	396.1	377.2	357.0	349.6	347.3	345.0
45°	510.4	450.9	402.6	369.0	351.5	336.7	319.2	307.7	298.9	297.1	299.4
47.5°	441.3	391.1	345.0	313.7	299.4	292.0	278.2	267.6	262.1	257.5	260.2
50°	378.6	331.6	294.8	268.5	258.4	253.3	240.4	234.9	229.4	228.0	227.5
52.5°	327.0	287.0	255.2	234.0	226.2	223.4	213.7	205.9	201.3	202.7	203.6
55°	280.1	246.0	221.1	204.1	197.6	194.4	187.5	181.9	178.7	177.3	178.3
57.5°	238.6	209.1	191.2	177.3	172.3	170.9	163.5	161.7	159.4	158.0	158.0
60°	200.8	180.1	163.5	155.7	150.2	148.8	143.3	140.9	140.5	139.1	138.2
62.5°	169.0	152.0	140.5	132.2	129.9	129.4	125.7	123.0	121.6	120.7	120.7
65°	141.4	129.0	119.3	113.3	111.5	110.5	106.4	105.5	104.6	103.6	103.2
67.5°	117.9	106.9	100.0	95.8	93.5	94.0	91.7	89.8	89.8	89.4	88.9
70°	95.3	88.4	82.5	80.1	79.2	78.3	77.4	76.0	75.5	75.5	75.5
72.5°	75.1	70.5	67.2	65.9	64.9	64.0	63.1	63.1	63.1	62.6	62.6
75°	57.6	55.7	53.4	52.0	52.0	53.0	51.6	50.2	48.8	47.9	48.4
77.5°	43.3	42.4	41.0	38.7	39.2	38.2	38.2	37.3	37.8	37.8	36.8
80°	31.8	30.4	29.9	28.6	29.0	28.6	28.1	28.1	27.2	27.2	27.2
82.5°	22.1	20.7	20.7	20.3	19.8	19.8	19.3	19.3	19.8	18.9	18.9
85°	13.4	12.9	12.9	12.0	12.0	12.0	12.0	12.4	12.0	11.5	11.5
87.5°	6.0	6.4	6.0	5.5	5.5	5.5	5.1	5.1	4.6	5.1	5.1
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°	571.6	571.6	571.6	571.6	571.6	571.6	571.6	571.6	571.6	571.6	571.6
2.5°	614.5	611.2	610.8	610.8	605.7	608.5	602.9	597.0	594.2	594.2	589.1
5°	665.6	662.4	659.1	654.1	654.1	651.3	642.6	633.8	627.4	621.8	615.8
7.5°	718.1	714.9	705.7	700.6	703.4	697.8	686.3	671.6	660.5	651.8	639.3
10°	775.2	766.5	761.9	759.1	749.4	743.4	730.1	708.4	694.6	683.1	667.0
12.5°	821.7	824.5	807.0	808.4	798.7	790.4	769.7	749.0	728.2	712.1	688.2
15°	871.9	863.7	853.1	844.8	841.5	831.4	813.9	786.3	763.7	738.4	711.2
17.5°	911.6	905.1	895.0	887.1	880.2	855.8	841.1	816.7	785.8	760.9	727.8
20°	945.2	939.2	924.9	919.9	907.4	889.9	868.7	831.0	803.3	776.1	743.9
22.5°	959.5	953.5	941.0	934.6	926.8	909.7	889.4	853.5	819.4	785.4	751.3
25°	947.5	947.5	941.5	939.2	932.3	917.1	896.4	866.0	829.6	792.7	752.2
27.5°	889.4	901.0	905.1	907.4	907.4	907.9	893.6	864.1	828.6	792.7	750.3
30°	805.6	825.0	842.0	847.1	855.8	865.5	871.5	857.2	825.4	787.7	745.3
32.5°	700.1	725.0	756.8	764.6	776.6	805.6	821.7	827.7	810.2	777.1	731.9
35°	595.1	626.4	645.8	669.7	680.8	723.6	759.6	781.2	777.1	757.3	716.3
37.5°	503.5	521.4	544.9	570.2	592.4	633.3	678.0	719.9	737.0	727.3	696.5
40°	415.5	436.7	464.8	485.5	500.7	541.7	597.0	642.6	679.9	685.9	667.0
42.5°	353.3	374.5	391.5	414.1	426.1	465.7	514.5	571.6	615.8	639.3	631.0
45°	305.4	318.3	332.1	345.0	359.7	394.7	439.9	502.5	552.3	585.4	588.7
47.5°	263.5	275.0	287.0	298.9	307.2	334.4	375.9	427.0	481.3	526.9	544.9
50°	234.0	239.5	248.3	255.2	264.9	288.3	321.5	365.7	423.3	472.6	496.1
52.5°	205.0	211.9	218.8	224.8	231.2	247.8	278.2	316.4	366.2	416.9	445.9
55°	180.6	186.1	192.5	196.7	200.4	215.1	238.1	267.6	310.5	358.4	394.3
57.5°	160.8	163.1	168.6	170.9	175.0	187.0	203.6	229.8	264.4	310.9	340.4
60°	139.1	143.7	147.9	149.7	152.9	161.2	172.7	197.1	227.1	261.2	294.8
62.5°	121.6	123.4	126.7	129.0	131.3	140.0	149.7	168.1	190.7	219.3	250.1
65°	105.5	106.4	108.2	111.5	112.9	119.3	124.8	138.2	159.4	181.0	211.9
67.5°	88.9	89.8	92.1	94.0	95.3	99.5	105.5	115.2	126.7	150.6	167.7
70°	76.0	76.0	77.4	78.3	79.7	81.5	84.8	92.1	102.7	117.9	133.6
72.5°	63.6	63.6	63.6	64.9	64.9	66.3	68.2	73.2	80.6	92.6	102.7
75°	49.3	49.7	50.7	50.7	51.1	53.0	54.4	55.7	59.4	67.2	76.5
77.5°	37.3	38.2	38.7	37.8	38.7	38.7	40.5	42.4	44.2	46.5	53.4
80°	27.6	28.1	27.2	27.6	27.6	28.6	29.5	29.0	29.9	32.7	34.5
82.5°	18.4	18.9	18.9	18.9	18.9	20.3	20.3	19.8	20.3	20.7	21.2
85°	11.5	11.1	11.1	11.5	11.1	11.1	11.5	12.0	11.5	12.0	12.4
87.5°	5.1	5.1	5.1	5.1	4.6	4.6	5.1	4.6	5.1	4.6	4.1
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):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	571.6	571.6	571.6	571.6	571.6	571.6	571.6	571.6	571.6	571.6	571.6
2.5°	586.4	584.1	582.7	582.2	578.1	575.8	574.4	573.5	572.1	568.4	565.2
5°	608.5	602.0	598.8	595.1	588.7	581.3	575.3	571.6	567.0	559.6	552.7
7.5°	629.2	619.5	613.1	608.0	597.0	585.0	575.3	567.5	558.7	548.6	538.9
10°	650.9	635.2	626.9	619.1	602.9	587.3	573.5	562.0	549.5	536.2	525.6
12.5°	667.9	647.2	638.0	626.9	607.1	588.7	571.2	555.5	539.4	525.1	509.9
15°	687.7	661.9	651.3	637.0	609.9	585.9	563.3	546.3	529.7	508.5	492.4
17.5°	699.2	669.3	654.1	641.6	612.2	583.1	556.9	535.7	516.4	495.2	478.1
20°	710.7	676.6	659.6	642.1	607.1	576.2	548.6	523.3	503.0	480.0	462.5
22.5°	714.4	674.8	656.8	640.7	603.9	569.3	537.5	511.7	488.3	465.2	445.4
25°	714.4	674.3	653.2	632.4	593.7	558.3	526.5	498.4	472.1	449.1	429.3
27.5°	707.0	665.1	643.0	624.1	584.1	545.8	513.1	482.3	456.9	433.9	411.3
30°	697.8	651.8	629.7	607.1	568.4	532.0	496.5	468.0	441.3	415.0	394.7
32.5°	686.3	637.5	613.1	590.0	549.1	511.3	478.6	450.5	425.1	398.0	375.4
35°	669.7	616.3	589.1	568.9	529.2	490.1	458.8	431.1	406.7	378.6	354.2
37.5°	648.5	597.0	569.3	544.4	503.5	467.5	438.0	411.3	387.4	361.6	334.4
40°	623.7	569.8	545.8	519.6	476.3	442.2	414.6	390.6	366.7	342.2	316.0
42.5°	595.6	542.1	515.4	490.1	448.6	415.0	389.2	367.6	345.5	322.9	294.8
45°	562.0	511.7	486.0	462.0	421.9	387.4	363.9	343.2	324.3	301.2	276.4
47.5°	524.2	480.4	454.2	428.4	389.2	359.3	336.2	318.7	302.6	279.6	257.0
50°	487.3	444.0	422.8	396.6	360.7	332.6	309.1	294.3	281.9	259.3	239.1
52.5°	440.8	408.1	387.8	365.3	330.7	302.2	283.7	270.8	256.1	238.6	220.6
55°	399.8	369.4	353.3	332.1	298.0	272.7	257.0	245.0	233.5	217.9	203.6
57.5°	353.3	334.4	318.3	299.9	266.2	244.6	230.8	220.6	210.0	197.1	185.6
60°	304.5	295.7	280.1	265.3	236.8	217.9	206.4	197.1	187.0	176.4	166.7
62.5°	261.2	256.1	246.9	235.4	208.7	192.5	181.0	174.1	166.7	157.1	147.9
65°	220.2	217.9	209.1	200.8	182.4	168.1	158.0	153.8	145.6	138.2	129.9
67.5°	183.8	181.0	176.0	172.3	156.6	143.3	138.2	132.7	125.7	120.2	113.3
70°	146.9	146.5	143.3	138.6	130.4	120.7	115.6	111.9	105.0	100.9	95.8
72.5°	114.2	116.5	113.8	111.9	106.4	99.5	94.9	92.6	87.1	83.8	80.1
75°	85.2	87.1	88.4	85.2	83.8	80.6	76.5	74.2	71.4	66.8	65.4
77.5°	58.0	62.2	62.2	63.1	63.6	61.7	58.5	56.7	53.4	52.5	50.7
80°	38.2	41.9	42.4	43.3	44.7	44.7	42.4	41.9	38.7	38.2	36.8
82.5°	22.1	25.3	27.2	28.6	28.1	29.9	28.1	27.6	25.8	25.8	24.9
85°	12.0	12.4	13.4	14.3	15.2	16.1	16.1	15.7	15.2	14.7	13.8
87.5°	4.6	4.6	5.1	4.6	5.1	6.0	6.4	6.4	6.0	5.5	4.6
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: P1000452

CATALOG NUMBER: SA4XXRDP-B350DB2750-4F0-XX-W2A-A_3000K

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	571.6	571.6	571.6	571.6	571.6	571.6	571.6	571.6	571.6	571.6	571.6
2.5°	562.4	561.5	560.6	556.9	553.7	548.1	543.5	541.7	541.2	541.7	540.3
5°	546.3	545.8	542.6	536.2	530.2	523.7	519.1	514.5	511.7	511.7	508.5
7.5°	531.1	527.9	525.1	516.8	509.9	501.2	494.2	490.1	487.8	482.7	482.7
10°	515.0	510.4	506.7	498.8	488.7	480.0	471.2	466.1	462.0	458.3	456.9
12.5°	498.8	495.2	488.3	480.0	469.8	458.8	449.6	445.9	436.2	428.4	428.8
15°	483.6	475.4	472.1	460.2	448.2	437.6	424.2	413.6	405.8	400.7	394.3
17.5°	466.6	458.3	452.3	442.2	426.5	409.9	397.1	382.8	374.9	366.2	362.0
20°	447.7	440.8	436.2	420.1	401.2	381.4	367.1	358.4	349.6	343.2	339.5
22.5°	431.6	422.8	417.3	395.7	374.9	355.1	344.1	336.7	329.3	323.8	322.0
25°	410.9	405.8	392.4	373.6	348.2	334.9	325.2	315.5	311.4	307.7	303.5
27.5°	393.8	381.4	372.2	347.3	331.6	316.4	306.8	299.4	294.3	290.6	287.4
30°	372.6	361.1	348.2	327.5	313.2	298.9	290.2	284.2	278.7	276.4	273.6
32.5°	350.5	339.9	327.5	310.9	293.4	282.4	275.4	269.0	265.3	263.0	259.8
35°	330.7	317.4	309.1	293.4	279.1	266.7	260.2	254.7	250.6	249.7	249.2
37.5°	309.5	299.4	291.6	275.4	263.5	252.9	246.9	240.9	238.6	238.1	236.3
40°	291.1	282.4	275.0	259.8	246.9	237.2	232.6	228.9	226.6	226.6	226.2
42.5°	275.0	265.8	258.4	244.6	233.1	224.3	219.3	215.6	214.6	215.1	214.6
45°	257.0	249.2	241.8	227.5	217.9	211.4	205.9	204.1	202.7	203.1	203.6
47.5°	240.0	233.5	226.2	214.6	203.6	196.7	193.5	191.6	191.6	191.6	192.5
50°	224.8	217.4	211.0	199.0	188.9	183.3	180.6	178.3	178.7	179.2	179.6
52.5°	206.8	200.4	195.8	183.8	176.4	169.5	166.3	166.7	166.3	166.3	167.2
55°	191.2	184.7	180.1	169.0	161.7	157.1	154.3	152.9	153.4	152.5	154.3
57.5°	173.7	168.1	164.9	154.3	147.9	143.7	141.4	139.1	140.0	139.6	139.1
60°	158.5	152.0	146.9	139.6	134.0	129.0	127.6	125.3	126.2	125.3	124.8
62.5°	140.9	135.9	132.2	124.8	120.2	116.1	112.9	111.5	111.0	109.6	108.2
65°	123.4	120.7	117.0	109.6	105.0	101.8	100.0	98.6	98.1	94.4	90.3
67.5°	107.3	105.5	101.8	96.3	92.1	88.9	86.1	83.8	81.1	78.3	76.0
70°	92.1	89.4	87.1	82.0	78.3	75.1	72.3	69.6	68.2	65.4	64.5
72.5°	77.4	74.6	72.3	67.7	64.5	61.3	60.3	57.1	55.7	55.3	55.3
75°	62.2	59.9	58.5	54.4	51.6	49.3	47.9	47.0	46.1	45.1	43.8
77.5°	47.4	46.1	45.1	42.4	40.1	38.7	38.2	35.0	34.1	33.2	32.2
80°	34.5	34.1	33.2	30.9	29.9	26.7	26.7	25.8	25.3	25.3	25.3
82.5°	23.5	22.6	22.1	19.8	19.3	18.9	18.4	18.0	18.4	18.0	18.4
85°	12.4	12.0	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.1	11.5
87.5°	4.6	4.6	4.6	4.6	4.1	4.6	4.6	4.1	4.6	4.6	4.6
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: P1000452

CATALOG NUMBER: SA4XXRDP-B350DB2750-4F0-XX-W2A-A_3000K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	571.6	571.6	571.6	571.6	571.6	571.6	571.6	571.6	571.6	571.6	571.6
2.5°	540.3	542.1	539.8	541.2	538.0	537.5	538.0	538.0	538.5	538.9	539.4
5°	509.9	509.4	506.7	504.8	503.5	504.8	505.8	506.7	505.8	506.7	507.1
7.5°	481.3	480.0	478.6	475.4	476.3	475.4	478.1	476.7	476.7	479.0	480.9
10°	456.0	453.2	452.3	448.6	445.9	445.4	448.6	450.0	451.4	452.3	456.0
12.5°	423.3	419.2	415.9	417.3	409.5	412.7	413.6	411.8	417.3	423.8	420.1
15°	388.3	388.8	382.3	380.0	373.6	375.4	375.9	380.5	385.1	384.6	390.1
17.5°	362.5	359.7	354.2	353.8	351.0	352.4	351.9	355.6	354.2	356.5	361.1
20°	338.6	336.7	332.1	330.3	331.2	330.3	330.7	331.2	332.6	337.6	336.7
22.5°	319.7	317.4	317.4	315.1	312.3	311.4	313.7	315.1	316.9	317.8	320.1
25°	303.1	301.2	298.9	297.6	295.3	295.7	297.1	298.9	300.3	302.2	304.0
27.5°	286.0	286.0	283.7	283.3	282.4	281.9	283.7	284.7	284.7	286.0	287.9
30°	272.7	272.7	270.4	269.9	269.5	269.5	270.8	271.3	271.8	273.1	274.1
32.5°	259.8	259.3	258.4	258.9	258.4	258.9	258.9	259.3	260.2	260.7	262.6
35°	247.8	248.3	247.4	247.4	246.9	247.4	248.3	248.7	249.2	250.1	250.1
37.5°	236.3	237.2	236.8	238.1	238.1	238.1	238.1	239.1	239.1	239.1	238.6
40°	226.2	226.2	225.7	226.6	227.5	227.5	228.0	228.0	228.5	228.5	228.0
42.5°	214.6	215.6	217.0	217.4	218.3	217.9	219.3	218.8	219.3	218.3	217.4
45°	204.1	204.1	205.9	207.7	208.2	208.2	208.2	209.1	208.2	206.8	206.4
47.5°	192.5	193.5	194.4	196.7	197.1	197.1	197.1	197.1	196.2	196.2	196.2
50°	181.0	181.5	181.9	182.9	184.2	183.8	183.8	183.8	185.6	183.8	184.2
52.5°	167.2	167.7	168.1	170.0	169.5	169.5	170.0	170.0	171.3	170.9	170.0
55°	153.4	153.4	154.3	154.3	154.3	155.2	155.7	156.6	156.1	156.6	157.1
57.5°	139.6	138.6	138.2	138.2	139.6	139.1	139.6	139.6	141.4	142.3	142.8
60°	123.4	123.4	123.0	120.2	120.2	119.8	121.1	122.1	123.0	127.1	126.7
62.5°	106.9	105.0	103.2	103.6	100.9	102.3	101.3	102.3	105.0	108.2	108.7
65°	90.3	88.9	87.1	86.6	85.7	87.1	86.6	87.1	88.4	90.3	92.6
67.5°	75.5	75.1	74.2	73.7	73.7	73.7	74.6	74.6	75.1	76.5	77.8
70°	64.5	64.0	64.5	63.6	64.0	63.6	64.0	64.5	64.9	65.4	66.8
72.5°	54.4	54.4	54.4	53.4	54.4	53.9	53.9	54.4	54.8	55.3	56.2
75°	43.3	42.4	41.5	40.5	40.1	41.0	41.5	41.0	42.4	44.2	44.2
77.5°	32.7	32.2	32.2	32.2	32.7	32.2	33.2	32.7	33.2	33.2	34.1
80°	25.3	24.9	25.3	25.3	24.9	25.8	25.3	25.3	25.8	26.3	25.8
82.5°	18.4	18.9	18.4	18.4	18.4	19.3	18.4	18.4	18.4	18.9	18.9
85°	11.5	11.5	11.5	11.5	12.0	11.5	12.0	11.5	12.4	12.0	12.0
87.5°	4.1	4.6	5.1	5.1	5.1	5.1	4.6	5.1	5.5	5.1	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: P1000452

CATALOG NUMBER: SA4XXRDP-B350DB2750-4F0-XX-W2A-A_3000K

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	571.6	571.6	571.6	571.6	571.6	571.6	571.6	571.6	571.6	571.6	571.6
2.5°	541.2	543.5	542.6	539.4	540.8	543.5	546.3	550.0	552.3	554.1	555.0
5°	509.4	513.6	512.7	512.7	514.5	519.1	523.7	531.6	534.3	537.5	542.1
7.5°	481.3	484.6	487.3	488.3	491.0	497.0	503.0	511.7	518.7	522.3	525.1
10°	456.5	458.8	462.9	465.2	468.0	475.4	484.1	493.3	500.2	506.7	510.4
12.5°	424.7	433.9	439.4	443.1	446.8	457.9	464.8	474.9	483.2	489.2	494.7
15°	389.2	400.3	403.5	417.8	427.0	435.7	446.3	458.3	466.1	473.1	480.4
17.5°	359.3	367.1	370.8	386.0	393.8	407.6	422.8	438.0	450.0	455.1	462.5
20°	340.4	344.5	351.9	357.0	365.3	381.4	398.0	416.4	434.4	439.4	446.8
22.5°	321.0	326.6	331.6	338.6	345.0	356.1	372.6	392.9	412.3	421.5	430.2
25°	303.5	309.1	312.3	319.7	325.7	336.7	348.2	369.0	392.0	399.8	413.6
27.5°	289.7	293.0	298.5	301.7	308.6	318.7	329.3	345.0	367.6	380.9	394.3
30°	275.9	278.2	282.8	287.4	292.5	299.4	311.4	326.6	347.3	358.8	372.2
32.5°	262.1	265.8	268.5	271.8	277.3	285.6	293.9	308.6	325.2	338.1	351.5
35°	250.6	252.0	255.6	259.3	263.0	270.4	279.1	293.4	308.2	318.3	330.3
37.5°	238.1	240.4	243.2	244.6	250.6	255.2	264.4	275.4	293.0	299.4	311.4
40°	228.5	228.0	230.8	233.1	235.8	243.2	248.7	260.7	274.5	284.7	292.0
42.5°	216.5	216.5	217.4	220.2	223.9	228.5	234.9	245.0	259.3	266.7	275.4
45°	206.8	205.4	205.9	207.7	210.0	214.6	221.1	229.8	244.1	250.1	259.3
47.5°	195.3	193.9	193.9	195.8	197.6	200.8	205.9	216.0	227.5	235.4	242.3
50°	182.4	182.9	182.4	183.8	184.7	187.9	193.5	201.7	212.3	218.8	226.6
52.5°	170.4	169.5	169.0	170.0	171.8	174.1	180.1	187.5	197.6	204.1	211.0
55°	155.7	156.6	156.6	156.6	159.4	160.3	164.9	172.3	182.4	187.5	193.9
57.5°	142.3	141.9	142.8	142.3	144.6	147.9	151.5	157.1	167.2	172.3	178.3
60°	127.6	128.1	128.5	128.5	130.4	133.6	137.7	142.8	151.1	156.1	161.7
62.5°	109.6	111.9	114.2	115.2	117.9	120.2	123.0	128.5	135.9	139.6	144.6
65°	92.6	95.8	99.0	101.3	103.2	105.5	109.2	114.2	120.2	123.9	129.0
67.5°	77.8	80.1	84.3	86.6	90.3	93.0	95.3	99.5	106.9	108.2	112.4
70°	67.2	68.2	70.0	71.9	76.0	78.3	81.1	85.2	90.7	94.0	96.3
72.5°	56.7	57.1	58.0	59.9	61.7	64.5	67.7	71.4	76.5	77.8	81.1
75°	45.1	47.9	47.9	49.3	50.7	52.0	54.8	58.5	61.7	64.0	65.9
77.5°	33.6	35.0	35.9	38.2	40.1	41.5	43.3	46.1	47.9	49.7	51.1
80°	26.3	26.7	27.2	27.2	28.1	29.9	31.8	33.6	35.9	36.8	38.2
82.5°	19.3	19.3	19.3	20.3	20.7	21.2	21.2	22.1	24.4	25.3	26.7
85°	12.4	12.4	12.4	12.4	12.9	13.4	13.8	14.3	14.3	14.3	15.2
87.5°	5.1	6.0	5.5	6.0	6.0	6.0	6.0	6.4	6.4	6.9	6.9
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: P1000452

CATALOG NUMBER: SA4XXRDP-B350DB2750-4F0-XX-W2A-A_3000K

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	571.6	571.6	571.6	571.6
2.5°	558.7	561.5	566.1	572.5
5°	545.8	553.7	561.0	570.7
7.5°	534.3	543.5	553.7	567.5
10°	521.0	532.5	545.4	562.4
12.5°	505.3	521.4	536.2	554.6
15°	493.8	505.8	524.6	546.3
17.5°	477.7	493.8	512.7	537.1
20°	462.5	479.5	500.7	526.0
22.5°	446.3	465.7	486.9	514.0
25°	429.8	450.5	471.7	500.7
27.5°	414.6	433.4	457.4	486.9
30°	396.1	417.8	440.8	471.7
32.5°	378.2	400.7	424.2	455.1
35°	358.8	381.4	407.2	436.7
37.5°	339.9	364.8	388.3	416.9
40°	319.2	345.0	369.4	398.4
42.5°	298.9	325.7	350.1	374.9
45°	280.1	306.3	328.4	351.9
47.5°	262.1	285.6	308.2	329.3
50°	244.6	264.4	285.1	302.6
52.5°	226.2	245.0	261.6	277.3
55°	209.6	224.3	239.1	253.3
57.5°	189.8	204.5	217.4	228.5
60°	173.2	182.4	194.8	206.4
62.5°	154.3	164.9	174.6	181.9
65°	135.9	145.1	152.5	158.9
67.5°	120.2	125.7	131.3	138.2
70°	101.3	105.9	112.4	117.5
72.5°	85.2	88.9	92.1	98.1
75°	69.1	72.3	74.2	79.7
77.5°	53.4	56.7	58.0	61.3
80°	41.0	41.5	43.3	46.1
82.5°	28.1	29.0	29.5	31.8
85°	16.1	18.4	18.0	18.9
87.5°	6.9	7.4	8.3	9.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)