

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P231533

Luminaire Tested: **S121-DR-LO-35-X-0048-1-U-DD-3-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231533  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29630)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S121-DR-LO-35-X-0048-1-U-DD-3-W  
Description: DEFINE 1 LED LINEAR DIRECT RECESSED LED LUMINAIRE WITH ASYMMETRIC LENS.  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1474.0 lumens  
Efficiency: N/A  
Efficacy: 108.4 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.39  
Luminous Opening: Rectangular (W 3.92' x L: 0.1' x H: 0')  
CIE Type: Direct

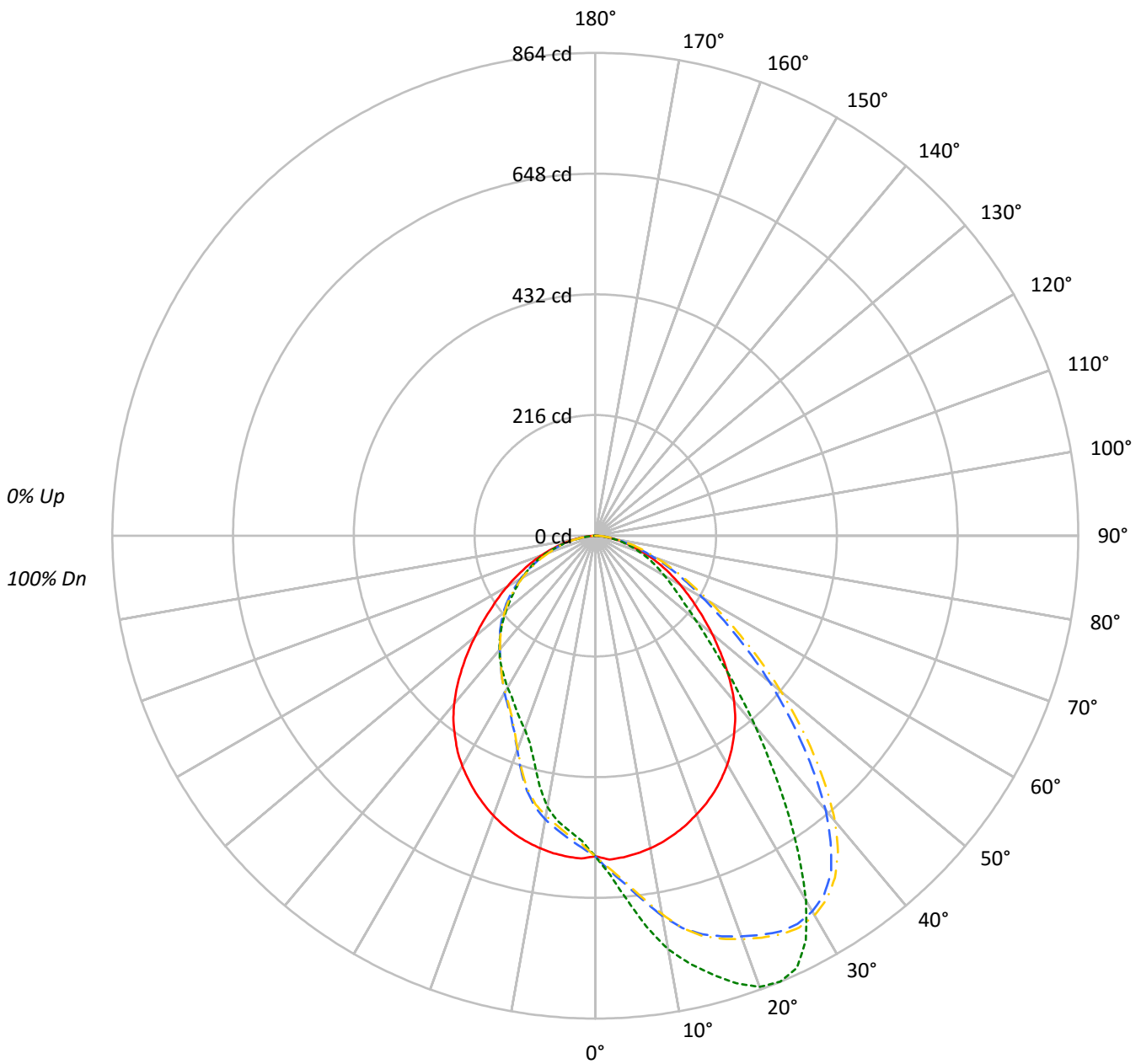
Input Watts (W): 13.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P231533

CATALOG NUMBER: S121-DR-LO-35-X-0048-1-U-DD-3-W

### Luminous Intensity Polar Plot



— 0°-180°    - - 45°-225°    - - - 90°-270°    - - - 135°-315°



TEST NUMBER: P231533

CATALOG NUMBER: S121-DR-LO-35-X-0048-1-U-DD-3-W

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20					20					20					20					
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	105	102	98	107	103	100	96	99	96	93	95	93	91	92	90	88	86					86			
2	101	93	87	81	98	91	85	81	88	83	79	84	80	77	81	78	75	73					73			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63					63			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	66	61	56	54					54			
5	79	66	58	52	76	65	57	51	63	56	51	61	55	50	59	54	50	48					48			
6	73	60	52	45	71	59	51	45	57	50	45	56	49	44	54	49	44	42					42			
7	68	55	46	40	66	54	46	40	52	45	40	51	45	40	50	44	39	38					38			
8	63	50	42	36	62	49	42	36	48	41	36	47	40	36	46	40	36	34					34			
9	59	46	38	33	58	46	38	33	44	37	33	43	37	32	42	37	32	30					30			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	30	39	34	29	28					28			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	16031	16031	16031	16031
5°	16207	18360	16173	14877
10°	16122	21334	16122	13996
15°	15971	23534	16023	12165
20°	15771	25557	15858	10966
25°	15572	26316	15640	10430
30°	15253	24331	15360	10133
35°	14771	20396	14935	9935
40°	14095	16252	14336	9726
45°	13020	12597	13352	9434
50°	11848	10156	12213	9038
55°	10718	8783	11094	8715
60°	9791	7985	10182	8477
65°	8891	7455	9275	8210
70°	7953	6874	8370	7831
75°	6784	6222	7291	6740
80°	5442	5377	6263	5265
85°	3881	4363	4844	3657



TEST NUMBER: P231533

CATALOG NUMBER: S121-DR-LO-35-X-0048-1-U-DD-3-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.0	3.8
10°-20°	167.2	11.3
20°-30°	256.6	17.4
30°-40°	292.3	19.8
40°-50°	265.6	18.0
50°-60°	207.2	14.1
60°-70°	140.3	9.5
70°-80°	71.9	4.9
80°-90°	16.9	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°	479.8	32.5
0°-40°	772.0	52.4
0°-60°	1244.9	84.5
0°-90°	1474.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1474.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	573	573	573	573	573	
5°	578	654	576	530	578	55
15°	552	813	554	420	552	156
25°	505	853	507	338	505	232
35°	433	598	438	291	433	270
45°	329	319	338	239	329	254
55°	220	180	228	179	220	198
65°	134	113	140	124	134	134
75°	63	58	68	62	63	67
85°	12	14	15	11	12	15
90°	0	0	0	0	0	



TEST NUMBER: P231533

CATALOG NUMBER: S121-DR-LO-35-X-0048-1-U-DD-3-W

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	573.4	573.4	573.4	573.4	573.4	573.4	573.4	573.4	573.4	573.4	573.4
2.5°	580.0	577.5	578.9	583.0	587.4	588.8	589.6	591.4	593.6	597.3	600.2
5°	577.5	577.8	582.2	589.2	596.2	599.1	601.7	606.8	612.7	620.0	626.6
7.5°	573.4	576.3	584.4	594.3	605.0	610.1	614.2	624.4	635.1	646.8	658.2
10°	567.9	573.8	584.8	598.4	614.2	621.5	628.5	643.9	659.3	675.5	690.5
12.5°	560.6	569.4	583.7	601.7	623.0	632.9	642.4	662.6	682.1	701.2	718.8
15°	551.8	563.5	581.5	604.2	630.3	642.4	654.2	677.7	699.3	719.5	738.2
17.5°	542.2	556.5	578.2	605.7	635.8	649.0	661.1	686.5	708.5	730.2	751.5
20°	530.1	548.8	573.8	604.6	636.6	650.1	663.4	689.0	712.5	737.9	762.8
22.5°	518.3	537.8	567.5	599.8	631.4	646.1	659.7	687.6	714.7	744.1	773.1
25°	504.8	526.8	558.4	590.7	622.2	636.9	652.3	683.9	716.9	750.0	781.6
27.5°	489.3	512.8	545.1	576.7	609.4	626.3	643.9	680.6	718.0	752.9	783.4
30°	472.5	498.2	528.3	559.1	595.8	614.9	635.1	676.2	716.6	748.2	776.1
32.5°	453.7	479.4	507.3	541.8	581.1	602.8	626.3	668.1	708.5	736.4	761.4
35°	432.8	455.9	484.6	522.4	566.1	589.9	613.1	656.0	694.6	718.0	735.3
37.5°	411.2	434.3	461.1	502.2	549.2	575.2	596.9	638.0	674.0	690.9	691.3
40°	386.2	407.5	436.1	481.3	530.5	554.7	578.6	616.4	647.2	653.8	641.0
42.5°	358.3	380.7	411.5	459.6	508.4	533.8	554.3	590.7	613.8	609.4	581.5
45°	329.3	353.9	386.6	435.7	482.7	505.9	526.8	559.1	573.4	559.5	520.9
47.5°	300.3	326.7	360.9	409.7	453.7	476.1	495.6	522.4	528.3	505.5	462.2
50°	272.4	299.2	334.4	381.4	422.2	444.2	460.7	481.3	479.8	450.4	406.4
52.5°	245.6	273.1	310.2	350.9	389.1	408.6	424.0	437.2	430.6	396.1	352.8
55°	219.9	246.7	279.4	315.3	355.4	370.8	384.7	392.1	381.1	346.2	303.2
57.5°	197.1	221.0	254.0	286.0	320.1	333.0	344.7	346.9	332.2	294.4	258.8
60°	175.1	196.4	225.4	250.4	283.0	295.1	303.6	302.5	286.7	255.1	221.0
62.5°	154.2	172.5	197.1	221.7	246.7	256.2	263.6	263.6	244.1	216.6	190.2
65°	134.4	149.8	169.2	187.2	211.8	219.2	225.0	219.9	205.9	179.9	160.4
67.5°	115.6	127.8	142.8	157.9	178.8	184.3	188.0	186.5	171.4	149.8	134.0
70°	97.3	106.8	118.6	130.3	146.8	150.9	154.2	152.7	141.0	125.2	108.7
72.5°	78.9	85.9	95.4	105.4	117.5	120.4	123.3	121.9	110.5	100.2	88.1
75°	62.8	67.5	74.2	81.9	90.7	93.6	95.4	94.7	85.9	77.5	69.4
77.5°	47.4	50.7	55.8	61.3	67.2	68.3	70.1	69.4	63.9	58.0	52.5
80°	33.8	35.6	39.3	42.6	46.6	47.7	48.5	48.5	44.4	40.7	37.8
82.5°	22.0	23.1	25.3	27.2	29.7	30.1	30.8	30.8	28.3	26.8	25.3
85°	12.1	12.8	14.3	15.1	16.2	15.8	16.5	16.9	15.8	15.4	14.7
87.5°	5.1	5.1	5.5	6.2	5.9	5.9	6.2	6.6	6.2	5.9	6.2
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: P231533

CATALOG NUMBER: S121-DR-LO-35-X-0048-1-U-DD-3-W

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	573.4	573.4	573.4	573.4	573.4	573.4	573.4	573.4	573.4	573.4	573.4
2.5°	602.4	599.1	603.5	607.6	608.7	610.5	606.8	604.6	603.9	607.2	605.0
5°	631.8	631.4	638.8	645.0	646.8	650.1	648.3	647.9	648.7	654.2	651.6
7.5°	667.0	670.3	681.3	690.5	693.5	698.2	697.9	698.6	700.1	705.9	703.7
10°	706.7	709.2	722.5	734.2	737.9	742.6	739.7	744.8	746.7	751.5	748.5
12.5°	735.3	739.7	753.7	766.5	769.8	773.1	772.7	776.8	780.1	784.5	782.7
15°	754.4	759.9	776.4	790.7	795.1	798.1	798.4	803.6	807.3	813.1	815.3
17.5°	769.1	777.9	796.6	813.1	817.9	821.2	823.4	829.3	834.1	839.6	841.4
20°	782.7	795.1	816.4	833.7	838.1	840.7	844.0	848.7	854.2	859.0	860.1
22.5°	794.4	809.1	829.6	844.3	847.6	848.7	850.9	854.2	860.1	863.8	865.6
25°	801.0	813.1	831.5	844.0	846.5	844.7	846.2	846.2	850.9	853.1	857.2
27.5°	798.4	808.7	823.0	829.6	828.5	823.4	816.8	811.3	815.7	815.7	821.2
30°	786.3	791.1	795.5	790.7	780.5	774.6	762.8	751.5	755.1	753.7	759.2
32.5°	761.0	754.0	747.1	732.0	717.3	707.8	690.2	683.9	678.0	677.3	682.1
35°	721.0	701.5	683.2	660.4	643.9	632.1	611.2	595.4	596.9	597.6	601.3
37.5°	667.8	638.4	612.3	585.2	570.1	555.1	534.5	526.1	520.2	516.1	523.1
40°	606.5	570.1	540.0	512.1	498.5	482.0	462.9	454.5	448.6	445.3	450.1
42.5°	543.3	504.4	472.8	444.2	429.9	415.6	397.2	389.1	382.5	377.7	383.3
45°	482.0	441.6	409.0	380.7	366.4	355.0	337.0	330.0	323.8	318.6	324.5
47.5°	422.2	388.4	350.2	323.0	310.9	299.9	285.6	279.7	275.0	271.3	275.0
50°	366.0	333.0	297.4	275.0	265.4	255.5	244.1	239.7	236.0	233.5	235.7
52.5°	314.6	283.8	253.7	232.4	227.2	219.9	211.1	207.8	203.4	202.6	205.2
55°	268.4	241.9	217.3	201.5	196.4	190.9	184.3	182.1	179.5	180.2	179.9
57.5°	229.1	207.0	186.9	175.8	171.1	166.7	161.9	160.8	159.7	160.1	159.7
60°	195.7	177.7	161.9	152.7	149.8	146.5	143.2	141.3	142.1	142.8	143.9
62.5°	166.3	152.3	139.9	132.9	131.1	128.9	127.0	125.9	126.6	127.4	128.5
65°	141.0	130.0	120.8	116.0	114.2	113.1	112.0	112.7	112.0	112.7	113.8
67.5°	118.6	110.1	103.2	100.2	99.1	98.0	97.3	98.4	98.0	98.4	99.1
70°	98.4	91.4	86.6	84.4	83.7	83.0	82.6	82.6	83.3	84.1	84.8
72.5°	79.3	75.3	72.3	70.5	69.7	69.4	69.0	69.7	69.7	70.5	71.2
75°	62.8	60.2	57.6	57.3	56.9	56.5	56.5	57.3	57.3	57.6	58.0
77.5°	49.2	47.0	44.8	44.8	44.4	45.2	44.4	45.2	44.4	45.2	45.5
80°	36.3	34.5	34.1	33.0	32.7	33.8	32.7	33.4	32.7	33.4	33.8
82.5°	24.6	23.5	23.1	22.4	22.4	23.1	22.4	22.8	22.4	22.8	23.1
85°	14.3	13.9	13.6	13.6	13.2	13.9	13.2	13.6	13.2	13.6	13.9
87.5°	6.2	6.2	5.9	6.2	5.5	6.2	5.9	6.2	6.6	6.2	6.2
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: P231533

CATALOG NUMBER: S121-DR-LO-35-X-0048-1-U-DD-3-W

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	573.4	573.4	573.4	573.4	573.4	573.4	573.4	573.4	573.4	573.4	573.4
2.5°	607.6	603.9	602.8	599.8	600.6	604.2	603.1	605.3	596.5	589.6	584.8
5°	652.7	646.5	643.2	638.0	637.7	638.8	634.7	634.7	622.2	612.0	603.1
7.5°	704.5	696.0	690.9	683.9	682.8	681.3	674.0	670.3	654.2	638.4	624.8
10°	748.5	740.1	734.6	728.0	726.5	724.3	714.4	707.4	687.2	667.0	648.3
12.5°	782.7	773.8	767.6	761.7	759.5	757.3	748.2	736.8	718.8	693.8	671.8
15°	813.5	804.0	796.6	789.6	786.0	781.6	770.9	760.3	741.5	714.7	690.9
17.5°	839.2	828.9	820.1	813.1	808.4	802.5	789.6	775.0	756.2	728.0	703.4
20°	857.9	847.6	838.1	831.9	827.8	819.4	805.8	788.9	768.3	737.5	709.6
22.5°	864.2	854.6	846.2	841.4	837.4	830.7	818.6	802.1	778.3	744.5	712.9
25°	856.4	850.9	845.1	842.5	839.6	834.4	825.6	810.2	787.1	750.7	714.7
27.5°	822.7	824.1	824.9	828.9	828.2	829.3	824.1	810.6	790.4	755.1	715.8
30°	764.7	773.1	780.8	790.4	792.2	805.1	809.1	799.9	784.1	754.4	715.5
32.5°	697.1	703.0	716.2	726.1	736.8	759.9	775.0	780.1	770.9	746.3	710.3
35°	616.0	624.8	642.1	656.4	668.5	699.7	724.7	745.2	747.1	732.0	698.6
37.5°	537.8	547.7	565.3	583.0	592.5	630.3	663.0	696.8	712.9	709.6	682.8
40°	464.8	475.4	492.6	511.0	518.7	558.0	594.0	638.0	667.0	679.5	660.8
42.5°	397.2	408.2	425.1	441.3	457.4	489.0	525.3	574.5	611.6	637.3	631.4
45°	336.3	346.5	363.1	377.4	388.0	424.4	460.0	504.4	551.8	583.3	593.2
47.5°	284.9	293.7	308.4	321.2	335.5	363.8	399.4	443.5	491.9	535.2	549.6
50°	243.8	251.1	263.6	273.9	284.5	309.8	342.5	385.5	433.5	479.8	501.1
52.5°	211.1	217.0	227.2	234.2	243.4	263.9	292.6	332.2	377.4	424.7	450.8
55°	185.0	189.4	198.6	202.3	209.6	226.1	249.6	285.6	324.5	370.8	400.1
57.5°	163.4	166.3	174.0	176.6	182.1	194.9	213.7	244.1	277.9	320.5	355.7
60°	145.4	147.6	152.3	154.5	159.0	168.9	183.6	207.4	236.4	274.6	303.6
62.5°	128.9	130.3	134.0	135.5	138.8	146.1	157.9	176.9	200.4	232.7	263.9
65°	114.2	114.9	117.8	117.8	120.8	126.3	135.1	150.9	168.9	196.4	223.2
67.5°	99.5	99.9	101.0	102.4	104.6	108.7	114.9	127.4	141.7	164.1	186.5
70°	84.8	85.2	86.6	86.6	88.1	91.0	96.9	106.1	117.1	135.1	153.4
72.5°	71.2	72.0	72.7	72.3	73.8	75.6	79.7	85.5	96.5	109.0	123.7
75°	58.4	58.0	59.5	59.1	60.2	61.3	64.6	68.6	76.0	84.8	96.5
77.5°	45.9	45.5	46.6	47.4	47.0	48.1	50.3	52.5	57.6	63.9	72.0
80°	34.1	34.5	34.5	35.2	35.2	35.6	37.1	38.2	41.8	45.5	51.0
82.5°	23.1	23.9	23.9	24.6	24.2	24.6	25.3	26.1	28.3	30.1	33.4
85°	13.9	13.9	14.3	14.7	14.7	14.7	15.4	15.4	16.5	17.3	19.1
87.5°	6.6	6.2	6.6	7.0	6.6	7.0	6.6	7.0	7.7	7.3	8.1
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: P231533

CATALOG NUMBER: S121-DR-LO-35-X-0048-1-U-DD-3-W

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	573.4	573.4	573.4	573.4	573.4	573.4	573.4	573.4	573.4	573.4	573.4
2.5°	581.9	583.0	582.2	581.1	581.1	584.4	583.7	578.2	572.7	566.4	564.2
5°	597.3	595.4	592.9	590.3	587.4	587.7	584.4	576.3	568.6	560.6	557.3
7.5°	614.2	607.9	603.9	599.5	592.5	590.3	583.7	573.0	563.5	554.0	549.2
10°	632.9	621.1	614.2	607.6	596.9	590.7	581.1	567.9	556.9	545.5	540.0
12.5°	651.2	634.4	625.2	615.6	599.8	590.3	577.5	561.3	548.4	536.0	529.0
15°	667.0	647.2	635.5	623.7	602.4	587.7	571.6	553.6	537.8	525.0	516.5
17.5°	678.0	655.6	643.5	629.9	603.9	584.4	564.6	544.0	526.8	512.1	502.2
20°	682.4	658.9	646.5	632.1	603.1	578.9	556.5	533.0	514.7	499.6	486.4
22.5°	682.1	657.1	643.9	629.2	598.7	572.7	546.6	520.5	500.7	483.5	468.4
25°	678.8	650.9	636.6	621.5	591.0	564.2	535.6	507.0	485.3	465.5	447.1
27.5°	675.5	642.1	626.3	610.9	580.0	552.9	522.4	491.9	468.1	445.3	424.0
30°	671.4	632.5	614.5	596.9	563.5	537.1	507.3	475.8	449.3	423.6	397.9
32.5°	665.6	623.0	603.1	582.2	545.5	518.7	490.1	458.5	428.4	399.0	371.9
35°	657.1	612.0	591.0	567.9	525.3	497.1	470.3	437.6	406.7	374.1	346.9
37.5°	643.5	598.4	576.0	552.1	504.4	473.2	447.1	417.0	382.9	349.1	323.0
40°	625.5	580.8	558.7	533.4	482.7	447.9	421.8	392.8	357.6	324.5	301.4
42.5°	603.9	558.7	537.1	513.2	460.7	422.2	395.0	366.0	331.9	301.4	280.8
45°	575.2	532.7	510.3	489.0	437.2	395.7	367.1	337.7	307.3	280.5	261.4
47.5°	541.5	504.0	481.6	461.1	411.5	369.3	338.8	309.1	282.7	259.9	243.0
50°	502.2	472.5	450.8	429.1	384.0	342.1	310.6	280.8	258.1	240.5	225.4
52.5°	460.0	438.3	417.4	397.2	354.6	314.6	280.8	253.7	235.3	221.4	208.9
55°	415.6	402.0	385.1	363.1	323.4	286.0	254.4	227.6	212.9	202.6	192.4
57.5°	370.0	362.7	348.4	328.2	291.1	257.3	228.3	204.1	191.6	183.9	176.2
60°	325.3	320.8	307.3	292.9	258.8	229.1	201.9	182.1	171.8	165.9	159.7
62.5°	280.8	280.5	272.0	257.0	227.2	201.5	177.3	160.4	152.3	148.3	143.2
65°	239.0	241.6	233.5	221.7	196.4	174.0	153.8	140.2	134.0	130.7	127.0
67.5°	200.1	203.7	197.5	187.6	167.0	147.9	132.2	121.1	116.0	113.4	110.5
70°	164.8	167.8	163.7	155.3	138.8	123.7	110.9	102.4	98.8	96.5	95.1
72.5°	133.3	134.7	131.4	125.2	112.7	101.3	90.3	84.1	81.1	79.3	77.5
75°	102.4	105.7	102.8	97.6	87.7	78.2	72.0	67.5	65.0	63.9	62.8
77.5°	76.0	78.2	76.4	72.7	66.4	59.5	55.1	53.2	51.8	49.2	48.5
80°	53.2	55.1	54.0	51.4	47.4	44.1	39.6	38.9	37.4	35.6	35.2
82.5°	36.0	35.6	35.2	33.0	30.8	29.0	26.1	26.1	23.9	23.5	23.1
85°	19.1	19.8	19.5	18.4	17.6	15.8	15.1	15.1	14.3	13.2	13.2
87.5°	7.7	8.1	8.1	7.3	7.3	6.6	7.0	6.6	6.2	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: P231533

CATALOG NUMBER: S121-DR-LO-35-X-0048-1-U-DD-3-W

**CANDELA DISTRIBUTION (continued):**

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	573.4	573.4	573.4	573.4	573.4	573.4	573.4	573.4	573.4	573.4	573.4
2.5°	562.8	563.1	562.0	559.8	558.7	555.4	558.4	554.7	549.9	553.6	552.5
5°	554.3	554.0	551.8	548.8	546.6	542.2	544.4	540.0	534.5	536.7	535.2
7.5°	544.8	544.0	541.1	536.7	533.0	527.9	529.7	524.6	518.7	520.9	519.4
10°	534.5	532.7	529.0	523.5	519.4	513.9	515.4	509.5	502.9	503.7	500.7
12.5°	522.0	519.4	515.4	509.5	504.8	497.8	497.4	489.0	479.4	477.6	471.7
15°	508.1	505.1	501.1	493.4	486.4	475.8	472.5	460.0	446.8	442.4	434.6
17.5°	494.5	489.3	484.6	473.2	462.2	447.1	440.9	425.8	412.3	407.1	400.1
20°	475.0	470.3	463.3	447.9	433.2	415.6	407.8	391.3	382.2	379.6	375.5
22.5°	453.4	446.8	439.1	418.5	402.3	385.5	379.2	366.7	361.2	360.5	358.3
25°	428.4	420.3	408.2	388.8	373.3	360.1	357.2	348.4	345.4	345.8	344.0
27.5°	404.5	392.8	381.8	361.2	349.1	340.7	339.9	333.0	331.9	331.5	328.9
30°	374.8	365.6	354.6	337.4	328.9	324.5	324.9	318.6	317.2	316.4	315.0
32.5°	349.1	341.0	330.8	317.2	312.4	310.9	308.7	303.6	304.3	303.6	303.6
35°	325.3	316.4	309.8	299.9	297.7	297.0	293.7	290.0	290.7	292.9	292.2
37.5°	303.6	297.0	290.7	284.5	283.0	282.7	279.0	277.9	280.8	280.8	280.1
40°	283.8	278.3	273.1	269.8	268.7	268.0	265.8	265.8	268.7	268.4	268.0
42.5°	265.8	260.6	257.3	255.5	254.4	254.4	253.3	255.1	256.6	256.2	254.4
45°	248.5	244.5	242.7	240.8	240.1	241.2	240.8	241.9	243.8	242.7	240.5
47.5°	231.6	228.7	227.6	226.1	227.2	227.6	228.0	228.7	229.8	228.0	225.8
50°	215.9	213.7	212.9	211.1	214.0	213.7	214.8	215.9	215.1	212.6	210.7
52.5°	200.4	199.0	198.6	198.6	200.1	200.1	200.8	201.5	199.7	197.1	195.3
55°	185.8	184.3	183.9	182.8	185.0	185.8	185.8	185.8	183.6	180.6	179.1
57.5°	171.1	169.2	168.9	170.0	170.0	170.0	170.3	170.0	167.8	165.6	164.5
60°	155.7	154.2	153.8	154.9	154.5	156.0	154.5	153.8	152.0	150.9	151.2
62.5°	140.2	138.4	138.4	139.5	139.5	140.2	138.8	137.7	136.6	135.8	136.9
65°	123.3	122.6	122.6	124.1	124.1	123.3	122.2	122.2	121.9	121.5	121.5
67.5°	107.6	107.2	107.6	109.0	108.7	107.6	106.8	107.2	107.2	107.6	107.6
70°	93.6	91.0	91.0	93.6	93.6	93.6	91.0	91.8	91.8	93.2	94.7
72.5°	77.5	76.0	76.0	77.5	76.4	77.8	76.4	77.5	77.8	78.6	79.3
75°	61.3	62.8	61.7	63.1	62.4	63.1	62.0	63.1	63.5	63.1	62.8
77.5°	48.5	48.8	47.7	49.2	48.8	49.2	48.5	49.2	49.2	48.5	49.2
80°	35.2	35.6	34.9	36.3	35.6	36.0	35.2	36.0	35.6	34.1	34.5
82.5°	23.5	23.9	23.1	24.6	23.5	24.2	23.1	23.5	23.1	21.7	22.0
85°	13.6	13.9	13.2	14.3	13.6	13.9	12.8	13.2	12.8	12.1	12.1
87.5°	5.5	5.9	5.1	5.9	5.5	5.5	4.8	5.1	5.1	4.4	4.8
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: P231533

CATALOG NUMBER: S121-DR-LO-35-X-0048-1-U-DD-3-W

**CANDELA DISTRIBUTION (continued):**

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	573.4	573.4	573.4	573.4	573.4	573.4	573.4	573.4	573.4	573.4	573.4
2.5°	552.5	549.9	548.4	547.0	545.5	546.6	547.3	547.7	549.9	549.2	549.6
5°	534.5	531.9	529.7	528.3	527.9	530.1	531.2	530.8	531.9	530.5	531.2
7.5°	519.1	516.5	514.3	512.1	512.5	515.0	516.5	516.5	518.0	515.8	515.8
10°	500.7	497.4	493.8	491.2	490.8	493.0	493.4	492.6	495.6	495.6	497.1
12.5°	471.4	466.6	464.0	457.4	457.0	459.2	460.3	462.5	463.6	465.1	468.1
15°	433.5	429.1	425.5	418.5	418.1	420.3	418.9	424.7	426.9	429.1	432.1
17.5°	399.0	396.1	392.4	387.3	386.6	388.8	388.4	392.4	393.9	395.4	397.9
20°	374.8	371.1	370.4	367.1	367.1	368.6	368.2	370.0	370.8	370.8	372.2
22.5°	357.9	355.7	354.6	352.4	352.4	353.5	353.9	354.6	354.6	353.5	354.3
25°	343.6	341.4	339.6	336.6	337.0	338.1	338.5	339.2	339.6	339.2	339.9
27.5°	328.2	326.0	324.5	322.7	323.0	324.2	323.8	324.5	324.5	324.5	325.3
30°	314.6	313.1	313.1	312.0	313.1	313.9	313.5	313.5	312.8	311.3	311.3
32.5°	302.9	302.5	302.5	302.1	302.1	302.1	302.5	302.9	302.1	301.0	300.7
35°	291.8	291.1	291.1	290.0	291.1	291.1	291.1	291.5	290.7	290.0	288.9
37.5°	280.5	280.5	279.7	279.7	279.4	280.1	279.7	279.7	279.4	278.3	277.5
40°	268.4	268.0	266.5	266.1	265.8	266.5	265.8	266.5	266.5	266.1	265.8
42.5°	254.4	254.0	253.3	252.6	252.2	252.9	252.2	252.6	252.9	252.9	252.2
45°	240.1	240.5	239.0	237.1	238.6	238.6	238.2	238.6	238.6	239.0	238.2
47.5°	225.8	225.8	224.3	223.6	223.2	223.2	222.5	223.2	223.9	224.7	223.9
50°	210.3	210.0	208.1	206.3	207.4	207.8	206.7	207.4	207.8	208.9	208.9
52.5°	194.6	194.6	193.1	192.0	193.5	193.1	192.4	192.4	192.7	192.4	192.7
55°	179.1	179.9	178.8	178.0	178.4	178.8	178.4	178.4	178.4	178.0	177.7
57.5°	164.8	165.6	164.5	164.1	164.8	165.2	164.1	164.1	164.1	164.1	163.4
60°	150.9	151.2	150.9	150.1	151.2	151.6	150.9	150.5	150.1	149.4	149.4
62.5°	136.6	136.9	137.3	136.9	137.7	138.0	137.3	136.9	136.6	135.1	134.7
65°	122.2	123.0	123.7	123.7	124.4	124.1	123.7	123.3	122.6	121.5	120.4
67.5°	107.9	109.0	109.8	109.8	110.5	110.1	109.8	109.4	108.7	107.6	106.5
70°	94.0	95.1	95.1	95.4	95.4	95.8	94.7	94.7	94.7	93.2	91.4
72.5°	78.2	79.3	78.9	79.3	79.3	78.6	78.6	78.6	78.9	77.5	76.7
75°	63.1	63.9	63.5	63.9	62.8	62.4	63.5	62.4	62.4	62.4	61.7
77.5°	47.7	48.1	47.7	48.1	46.3	47.7	47.4	46.3	46.6	46.6	48.1
80°	33.4	33.8	33.0	33.0	31.6	32.7	32.7	31.9	31.9	31.9	33.4
82.5°	21.3	21.3	20.9	20.9	19.8	20.9	20.6	19.8	19.8	20.2	20.9
85°	12.1	11.7	11.4	11.7	10.6	11.4	11.4	11.0	11.0	11.0	11.4
87.5°	4.8	4.4	4.4	4.4	4.4	4.4	4.4	4.0	4.0	4.4	4.4
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: P231533

CATALOG NUMBER: S121-DR-LO-35-X-0048-1-U-DD-3-W

**CANDELA DISTRIBUTION (continued):**

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	573.4	573.4	573.4	573.4	573.4	573.4	573.4	573.4	573.4	573.4	573.4
2.5°	551.8	553.6	557.3	560.9	552.1	553.6	555.4	558.0	560.2	561.3	562.4
5°	533.0	536.0	540.0	545.1	538.5	538.9	542.9	546.6	549.9	551.4	553.2
7.5°	517.2	519.4	525.0	528.6	523.1	523.9	529.0	534.5	538.5	540.7	543.3
10°	499.3	502.6	509.9	513.6	508.8	509.2	513.6	520.2	526.1	528.6	531.9
12.5°	471.7	476.9	487.5	493.0	492.6	493.8	498.5	505.1	511.4	514.7	519.1
15°	433.2	442.4	455.9	464.0	469.2	473.2	480.5	489.7	496.3	499.3	502.9
17.5°	399.4	407.5	420.3	429.1	438.3	446.0	456.3	469.5	478.7	482.7	487.1
20°	373.3	377.7	388.0	395.7	406.0	414.8	426.9	444.6	457.4	462.9	468.8
22.5°	355.0	358.7	363.8	368.9	377.0	384.7	396.1	416.3	432.8	439.8	448.6
25°	340.3	343.2	346.5	349.1	354.3	356.1	367.1	386.9	405.6	414.1	425.1
27.5°	326.0	329.7	332.6	334.4	337.4	336.6	344.7	359.0	377.7	387.3	398.3
30°	311.3	313.9	317.9	319.7	323.0	319.7	323.8	334.4	350.9	360.1	371.1
32.5°	299.9	299.9	301.8	304.0	308.7	305.8	306.9	313.5	327.1	335.2	345.8
35°	288.9	288.5	288.9	289.3	293.3	292.6	292.2	295.5	306.2	312.8	321.9
37.5°	277.2	276.8	276.8	276.4	278.6	279.0	279.0	279.7	287.1	291.1	299.9
40°	264.7	264.3	264.7	264.3	265.0	264.7	265.0	265.8	270.2	273.1	279.0
42.5°	251.8	252.2	252.2	252.2	251.8	250.7	251.1	251.5	254.8	255.9	260.6
45°	237.9	239.0	239.0	238.6	238.6	237.9	236.4	237.5	239.7	239.7	243.4
47.5°	223.9	224.3	225.0	225.0	225.0	224.7	222.5	223.2	225.0	224.3	226.9
50°	208.5	209.6	210.3	211.1	211.5	210.7	208.9	208.5	208.5	209.2	210.3
52.5°	192.7	194.2	195.3	196.4	197.1	196.8	195.7	194.2	194.6	194.6	195.3
55°	177.7	178.0	179.9	181.7	182.1	182.1	181.3	179.5	180.6	179.5	180.6
57.5°	162.6	163.0	164.1	164.1	166.3	167.0	166.7	165.2	165.9	164.8	165.6
60°	148.7	148.7	148.7	149.8	150.5	151.6	151.6	150.1	150.5	150.1	150.5
62.5°	134.4	134.0	133.6	134.4	134.4	135.8	136.2	135.1	135.1	135.8	135.1
65°	120.0	119.7	119.3	117.8	118.6	119.7	120.8	120.0	119.7	120.0	119.7
67.5°	106.1	105.4	105.0	103.2	103.5	103.9	105.0	104.6	104.6	104.6	104.3
70°	93.2	90.3	89.9	89.2	87.7	88.1	88.5	88.5	88.1	88.5	87.7
72.5°	77.8	76.0	74.9	74.9	74.9	73.4	73.8	73.8	73.1	73.4	72.7
75°	63.1	61.7	61.3	61.3	60.6	59.5	59.5	58.7	58.7	58.7	58.0
77.5°	48.1	47.4	47.4	47.4	47.0	45.9	46.3	45.5	44.8	45.2	45.5
80°	33.8	33.4	33.4	33.8	34.1	33.0	33.4	32.7	32.3	32.3	31.6
82.5°	21.3	21.3	21.3	22.0	22.4	22.8	22.0	21.3	21.3	21.3	21.7
85°	11.7	11.4	11.7	12.1	12.1	11.7	12.1	12.1	12.1	12.1	11.4
87.5°	4.4	4.0	4.4	4.4	4.4	4.0	4.4	4.4	4.4	4.8	4.8
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: P231533

CATALOG NUMBER: S121-DR-LO-35-X-0048-1-U-DD-3-W

**CANDELA DISTRIBUTION (continued):**

	345°	350°	355°	360°
0°	573.4	573.4	573.4	573.4
2.5°	566.4	573.0	577.8	580.0
5°	558.4	566.4	573.0	577.5
7.5°	549.6	558.4	567.2	573.4
10°	539.3	550.3	559.5	567.9
12.5°	527.5	539.6	549.9	560.6
15°	514.3	527.9	539.6	551.8
17.5°	499.3	514.7	527.5	542.2
20°	482.0	499.6	514.3	530.1
22.5°	463.6	483.1	500.0	518.3
25°	443.1	464.8	484.6	504.8
27.5°	419.2	444.9	467.7	489.3
30°	393.9	422.2	448.6	472.5
32.5°	367.5	398.3	428.4	453.7
35°	342.5	373.7	406.7	432.8
37.5°	319.0	348.4	383.6	411.2
40°	296.3	323.0	358.3	386.2
42.5°	275.7	299.6	333.0	358.3
45°	255.9	277.2	306.5	329.3
47.5°	237.1	256.6	281.2	300.3
50°	219.5	236.4	256.2	272.4
52.5°	202.3	217.0	232.7	245.6
55°	185.4	197.9	208.9	219.9
57.5°	169.2	178.8	186.9	197.1
60°	153.1	160.4	165.6	175.1
62.5°	136.9	142.4	145.7	154.2
65°	120.8	124.8	127.4	134.4
67.5°	105.0	107.9	109.4	115.6
70°	88.1	89.2	91.0	97.3
72.5°	73.1	73.8	74.9	78.9
75°	58.4	59.5	59.8	62.8
77.5°	45.9	45.5	46.6	47.4
80°	31.9	32.3	33.4	33.8
82.5°	20.6	20.9	22.0	22.0
85°	11.4	11.7	12.5	12.1
87.5°	4.4	4.8	5.1	5.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)