

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: P231534

Luminaire Tested: **S121-DR-LO-40-X-0048-1-U-DD-3-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231534  
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-40-X-0048-1-U-DD-3-W  
Description: DEFINE 1 LED LINEAR DIRECT RECESSED LED LUMINAIRE WITH ASYMMETRIC LENS.  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1533.0 lumens  
Efficiency: N/A  
Efficacy: 112.7 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

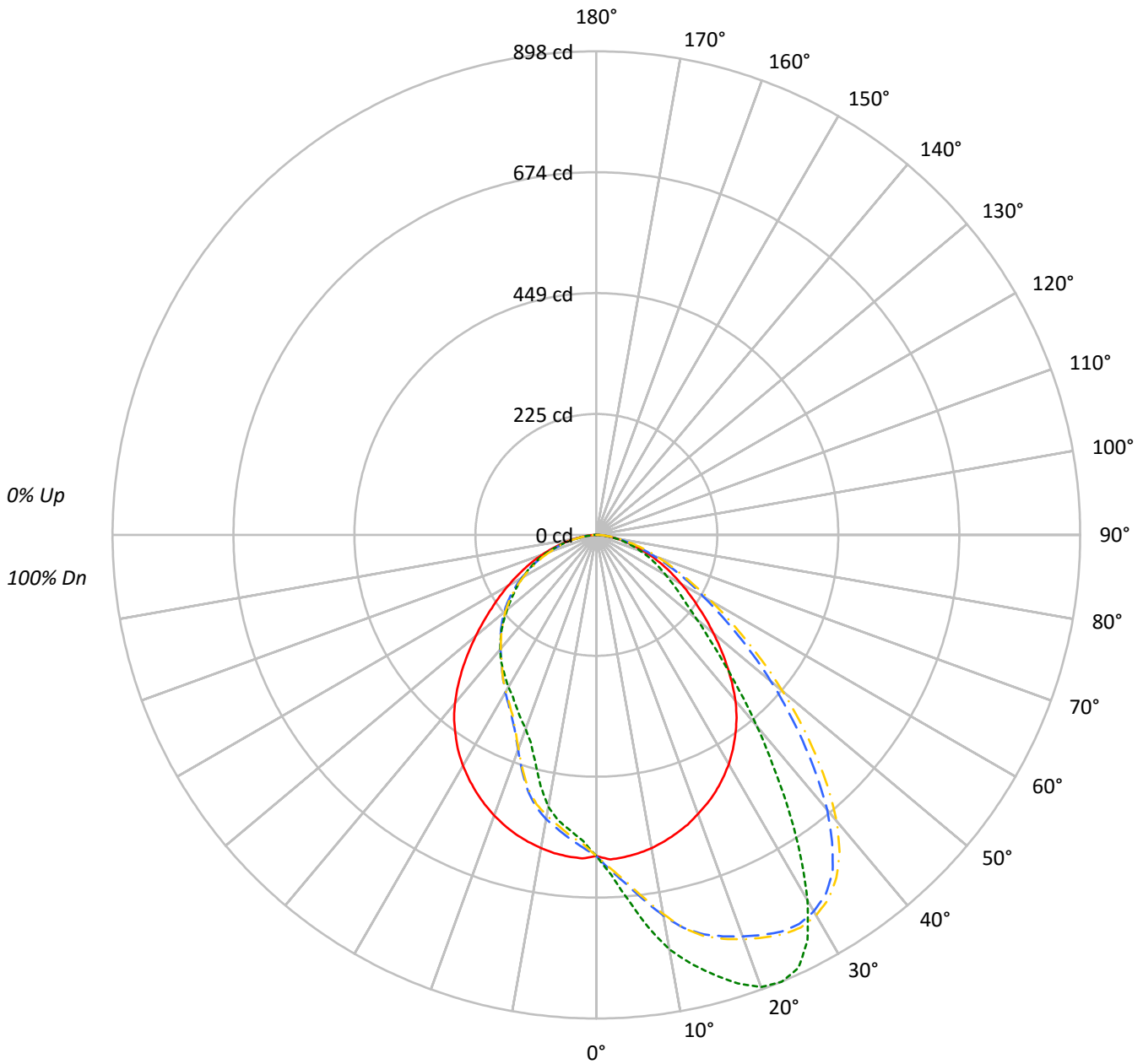
Input Watts (W): 13.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P231534

CATALOG NUMBER: S121-DR-LO-40-X-0048-1-U-DD-3-W

### Luminous Intensity Polar Plot



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



TEST NUMBER: P231534

CATALOG NUMBER: S121-DR-LO-40-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°	16671	16671	16671	16671
5°	16853	19092	16822	15472
10°	16766	22186	16766	14555
15°	16608	24478	16663	12651
20°	16402	26580	16494	11404
25°	16195	27371	16263	10846
30°	15864	25303	15973	10537
35°	15362	21212	15532	10334
40°	14657	16901	14909	10117
45°	13542	13103	13886	9813
50°	12322	10560	12705	9399
55°	11147	9139	11537	9061
60°	10182	8303	10590	8818
65°	9242	7753	9645	8534
70°	8272	7144	8706	8141
75°	7054	6470	7583	7010
80°	5651	5587	6521	5474
85°	4042	4523	5036	3785



TEST NUMBER: P231534

CATALOG NUMBER: S121-DR-LO-40-X-0048-1-U-DD-3-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	58.3	3.8
10°-20°	173.8	11.3
20°-30°	266.9	17.4
30°-40°	304.0	19.8
40°-50°	276.3	18.0
50°-60°	215.5	14.1
60°-70°	145.9	9.5
70°-80°	74.8	4.9
80°-90°	17.6	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°	499.0	32.5
0°-40°	802.9	52.4
0°-60°	1294.7	84.5
0°-90°	1533.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1533.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	596	596	596	596	596	
5°	600	680	599	551	600	57
15°	574	846	576	437	574	162
25°	525	887	527	352	525	242
35°	450	622	455	303	450	281
45°	342	331	351	248	342	264
55°	229	188	237	186	229	206
65°	140	117	146	129	140	139
75°	65	60	70	65	65	70
85°	13	14	16	12	13	16
90°	0	0	0	0	0	



TEST NUMBER: P231534

CATALOG NUMBER: S121-DR-LO-40-X-0048-1-U-DD-3-W

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3
2.5°	603.2	600.5	602.1	606.3	610.9	612.4	613.1	615.1	617.3	621.2	624.2
5°	600.5	600.9	605.5	612.8	620.0	623.1	625.7	631.1	637.2	644.8	651.7
7.5°	596.3	599.4	607.8	618.1	629.2	634.5	638.7	649.4	660.5	672.7	684.5
10°	590.6	596.7	608.2	622.3	638.7	646.4	653.6	669.7	685.7	702.5	718.1
12.5°	583.0	592.1	607.0	625.7	647.9	658.2	668.1	689.1	709.4	729.2	747.5
15°	573.8	586.0	604.7	628.4	655.5	668.1	680.3	704.8	727.3	748.3	767.8
17.5°	563.9	578.8	601.3	629.9	661.3	675.0	687.6	713.9	736.8	759.4	781.5
20°	551.3	570.8	596.7	628.8	662.0	676.1	689.9	716.6	741.0	767.4	793.3
22.5°	539.1	559.3	590.2	623.8	656.7	671.9	686.1	715.1	743.3	773.9	804.0
25°	525.0	547.9	580.7	614.3	647.1	662.4	678.4	711.3	745.6	780.0	812.8
27.5°	508.9	533.4	567.0	599.8	633.8	651.3	669.7	707.8	746.8	783.0	814.7
30°	491.4	518.1	549.4	581.5	619.6	639.5	660.5	703.2	745.2	778.1	807.1
32.5°	471.9	498.6	527.6	563.5	604.4	626.9	651.3	694.8	736.8	765.9	791.8
35°	450.1	474.2	504.0	543.3	588.7	613.5	637.6	682.3	722.3	746.8	764.7
37.5°	427.6	451.7	479.5	522.3	571.2	598.3	620.8	663.5	701.0	718.5	718.9
40°	401.6	423.8	453.6	500.5	551.7	576.9	601.7	641.0	673.1	680.0	666.6
42.5°	372.6	395.9	428.0	478.0	528.8	555.1	576.5	614.3	638.3	633.8	604.7
45°	342.5	368.0	402.0	453.2	502.0	526.1	547.9	581.5	596.3	581.8	541.8
47.5°	312.3	339.8	375.3	426.1	471.9	495.2	515.4	543.3	549.4	525.7	480.7
50°	283.3	311.2	347.8	396.7	439.1	462.0	479.1	500.5	499.0	468.5	422.6
52.5°	255.4	284.0	322.6	365.0	404.7	424.9	441.0	454.7	447.8	411.9	366.9
55°	228.7	256.6	290.5	328.0	369.6	385.6	400.1	407.7	396.3	360.0	315.4
57.5°	205.0	229.8	264.2	297.4	332.9	346.3	358.5	360.8	345.5	306.2	269.2
60°	182.1	204.3	234.4	260.4	294.4	307.0	315.7	314.6	298.2	265.3	229.8
62.5°	160.3	179.4	205.0	230.6	256.6	266.5	274.1	274.1	253.9	225.3	197.8
65°	139.7	155.8	176.0	194.7	220.3	227.9	234.0	228.7	214.2	187.1	166.8
67.5°	120.3	132.9	148.5	164.2	185.9	191.7	195.5	193.9	178.3	155.8	139.4
70°	101.2	111.1	123.3	135.5	152.7	156.9	160.3	158.8	146.6	130.2	113.0
72.5°	82.1	89.3	99.3	109.6	122.2	125.2	128.3	126.8	114.9	104.2	91.6
75°	65.3	70.2	77.1	85.1	94.3	97.4	99.3	98.5	89.3	80.6	72.2
77.5°	49.3	52.7	58.0	63.8	69.9	71.0	72.9	72.2	66.4	60.3	54.6
80°	35.1	37.0	40.9	44.3	48.5	49.6	50.4	50.4	46.2	42.4	39.3
82.5°	22.9	24.1	26.3	28.3	30.9	31.3	32.1	32.1	29.4	27.9	26.3
85°	12.6	13.4	14.9	15.7	16.8	16.4	17.2	17.6	16.4	16.0	15.3
87.5°	5.3	5.3	5.7	6.5	6.1	6.1	6.5	6.9	6.5	6.1	6.5
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: P231534

CATALOG NUMBER: S121-DR-LO-40-X-0048-1-U-DD-3-W

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3
2.5°	626.5	623.1	627.7	631.9	633.0	634.9	631.1	628.8	628.0	631.5	629.2
5°	657.1	656.7	664.3	670.8	672.7	676.1	674.2	673.9	674.6	680.3	677.7
7.5°	693.7	697.1	708.6	718.1	721.2	726.2	725.8	726.5	728.1	734.2	731.9
10°	734.9	737.6	751.4	763.6	767.4	772.4	769.3	774.6	776.6	781.5	778.5
12.5°	764.7	769.3	783.8	797.2	800.6	804.0	803.7	807.9	811.3	815.9	814.0
15°	784.6	790.3	807.5	822.4	826.9	830.0	830.4	835.7	839.5	845.7	847.9
17.5°	799.8	809.0	828.5	845.7	850.6	854.1	856.3	862.5	867.4	873.1	875.1
20°	814.0	826.9	849.1	867.0	871.6	874.3	877.7	882.7	888.4	893.4	894.5
22.5°	826.2	841.5	862.8	878.1	881.5	882.7	885.0	888.4	894.5	898.3	900.2
25°	833.1	845.7	864.7	877.7	880.4	878.5	880.0	880.0	885.0	887.3	891.5
27.5°	830.4	841.1	856.0	862.8	861.7	856.3	849.5	843.7	848.3	848.3	854.1
30°	817.8	822.7	827.3	822.4	811.7	805.6	793.3	781.5	785.3	783.8	789.5
32.5°	791.4	784.2	776.9	761.3	746.0	736.1	717.8	711.3	705.2	704.4	709.4
35°	749.8	729.6	710.5	686.8	669.7	657.4	635.7	619.3	620.8	621.5	625.4
37.5°	694.5	663.9	636.8	608.6	592.9	577.3	555.9	547.1	541.0	536.8	544.0
40°	630.7	592.9	561.6	532.6	518.5	501.3	481.4	472.7	466.5	463.1	468.1
42.5°	565.0	524.6	491.7	462.0	447.1	432.2	413.1	404.7	397.8	392.9	398.6
45°	501.3	459.3	425.3	395.9	381.0	369.2	350.5	343.2	336.7	331.4	337.5
47.5°	439.1	403.9	364.2	336.0	323.4	311.9	297.0	290.9	286.0	282.1	286.0
50°	380.6	346.3	309.2	286.0	276.0	265.7	253.9	249.3	245.5	242.8	245.1
52.5°	327.2	295.1	263.8	241.7	236.3	228.7	219.5	216.1	211.5	210.7	213.4
55°	279.1	251.6	226.0	209.6	204.3	198.5	191.7	189.4	186.7	187.5	187.1
57.5°	238.2	215.3	194.3	182.9	177.9	173.3	168.4	167.2	166.1	166.5	166.1
60°	203.5	184.8	168.4	158.8	155.8	152.3	148.9	147.0	147.8	148.5	149.7
62.5°	172.9	158.4	145.5	138.2	136.3	134.0	132.1	131.0	131.7	132.5	133.6
65°	146.6	135.2	125.6	120.6	118.7	117.6	116.4	117.2	116.4	117.2	118.4
67.5°	123.3	114.5	107.3	104.2	103.1	101.9	101.2	102.3	101.9	102.3	103.1
70°	102.3	95.1	90.1	87.8	87.0	86.3	85.9	85.9	86.7	87.4	88.2
72.5°	82.5	78.3	75.2	73.3	72.5	72.2	71.8	72.5	72.5	73.3	74.1
75°	65.3	62.6	59.9	59.6	59.2	58.8	58.8	59.6	59.6	59.9	60.3
77.5°	51.2	48.9	46.6	46.6	46.2	47.0	46.2	47.0	46.2	47.0	47.3
80°	37.8	35.9	35.5	34.4	34.0	35.1	34.0	34.7	34.0	34.7	35.1
82.5°	25.6	24.4	24.1	23.3	23.3	24.1	23.3	23.7	23.3	23.7	24.1
85°	14.9	14.5	14.1	14.1	13.7	14.5	13.7	14.1	13.7	14.1	14.5
87.5°	6.5	6.5	6.1	6.5	5.7	6.5	6.1	6.5	6.9	6.5	6.5
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: P231534

CATALOG NUMBER: S121-DR-LO-40-X-0048-1-U-DD-3-W

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3
2.5°	631.9	628.0	626.9	623.8	624.6	628.4	627.3	629.6	620.4	613.1	608.2
5°	678.8	672.3	668.9	663.5	663.2	664.3	660.1	660.1	647.1	636.4	627.3
7.5°	732.6	723.9	718.5	711.3	710.1	708.6	701.0	697.1	680.3	663.9	649.8
10°	778.5	769.7	764.0	757.1	755.6	753.3	743.0	735.7	714.7	693.7	674.2
12.5°	814.0	804.8	798.3	792.2	789.9	787.6	778.1	766.2	747.5	721.6	698.7
15°	846.0	836.1	828.5	821.2	817.4	812.8	801.7	790.7	771.2	743.3	718.5
17.5°	872.8	862.1	852.9	845.7	840.7	834.6	821.2	805.9	786.5	757.1	731.5
20°	892.2	881.5	871.6	865.1	860.9	852.1	838.0	820.5	799.1	767.0	738.0
22.5°	898.7	888.8	880.0	875.1	870.9	864.0	851.4	834.2	809.4	774.3	741.4
25°	890.7	885.0	878.9	876.2	873.1	867.8	858.6	842.6	818.5	780.8	743.3
27.5°	855.6	857.1	857.9	862.1	861.3	862.5	857.1	843.0	822.0	785.3	744.5
30°	795.3	804.0	812.1	822.0	823.9	837.3	841.5	831.9	815.5	784.6	744.1
32.5°	725.0	731.1	744.9	755.2	766.2	790.3	805.9	811.3	801.7	776.2	738.8
35°	640.6	649.8	667.7	682.6	695.2	727.7	753.6	775.0	776.9	761.3	726.5
37.5°	559.3	569.6	587.9	606.3	616.2	655.5	689.5	724.6	741.4	738.0	710.1
40°	483.3	494.4	512.4	531.4	539.5	580.3	617.7	663.5	693.7	706.7	687.2
42.5°	413.1	424.5	442.1	458.9	475.7	508.5	546.3	597.5	636.1	662.8	656.7
45°	349.7	360.4	377.6	392.5	403.5	441.3	478.4	524.6	573.8	606.7	617.0
47.5°	296.3	305.4	320.7	334.1	349.0	378.3	415.4	461.2	511.6	556.6	571.5
50°	253.5	261.1	274.1	284.8	295.9	322.2	356.2	400.9	450.9	499.0	521.1
52.5°	219.5	225.6	236.3	243.6	253.1	274.5	304.3	345.5	392.5	441.7	468.8
55°	192.4	197.0	206.5	210.4	218.0	235.2	259.6	297.0	337.5	385.6	416.1
57.5°	169.9	172.9	181.0	183.6	189.4	202.7	222.2	253.9	289.0	333.3	369.9
60°	151.2	153.5	158.4	160.7	165.3	175.6	190.9	215.7	245.9	285.6	315.7
62.5°	134.0	135.5	139.4	140.9	144.3	152.0	164.2	184.0	208.5	242.1	274.5
65°	118.7	119.5	122.6	122.6	125.6	131.3	140.5	156.9	175.6	204.3	232.1
67.5°	103.5	103.8	105.0	106.5	108.8	113.0	119.5	132.5	147.4	170.7	193.9
70°	88.2	88.6	90.1	90.1	91.6	94.7	100.8	110.3	121.8	140.5	159.6
72.5°	74.1	74.8	75.6	75.2	76.7	78.6	82.8	89.0	100.4	113.4	128.7
75°	60.7	60.3	61.8	61.5	62.6	63.8	67.2	71.4	79.0	88.2	100.4
77.5°	47.7	47.3	48.5	49.3	48.9	50.0	52.3	54.6	59.9	66.4	74.8
80°	35.5	35.9	35.9	36.7	36.7	37.0	38.6	39.7	43.5	47.3	53.1
82.5°	24.1	24.8	24.8	25.6	25.2	25.6	26.3	27.1	29.4	31.3	34.7
85°	14.5	14.5	14.9	15.3	15.3	15.3	16.0	16.0	17.2	17.9	19.9
87.5°	6.9	6.5	6.9	7.3	6.9	7.3	6.9	7.3	8.0	7.6	8.4
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: P231534

CATALOG NUMBER: S121-DR-LO-40-X-0048-1-U-DD-3-W

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3
2.5°	605.1	606.3	605.5	604.4	604.4	607.8	607.0	601.3	595.6	589.1	586.8
5°	621.2	619.3	616.6	613.9	610.9	611.2	607.8	599.4	591.4	583.0	579.5
7.5°	638.7	632.2	628.0	623.5	616.2	613.9	607.0	596.0	586.0	576.1	571.2
10°	658.2	646.0	638.7	631.9	620.8	614.3	604.4	590.6	579.2	567.3	561.6
12.5°	677.3	659.7	650.2	640.3	623.8	613.9	600.5	583.7	570.4	557.4	550.2
15°	693.7	673.1	660.9	648.7	626.5	611.2	594.4	575.7	559.3	546.0	537.2
17.5°	705.2	681.9	669.3	655.1	628.0	607.8	587.2	565.8	547.9	532.6	522.3
20°	709.7	685.3	672.3	657.4	627.3	602.1	578.8	554.4	535.3	519.6	505.9
22.5°	709.4	683.4	669.7	654.4	622.7	595.6	568.5	541.4	520.8	502.8	487.2
25°	705.9	676.9	662.0	646.4	614.7	586.8	557.0	527.2	504.7	484.1	465.0
27.5°	702.5	667.7	651.3	635.3	603.2	575.0	543.3	511.6	486.8	463.1	441.0
30°	698.3	657.8	639.1	620.8	586.0	558.6	527.6	494.8	467.3	440.6	413.9
32.5°	692.2	647.9	627.3	605.5	567.3	539.5	509.7	476.8	445.5	415.0	386.7
35°	683.4	636.4	614.7	590.6	546.3	516.9	489.1	455.1	423.0	389.0	360.8
37.5°	669.3	622.3	599.0	574.2	524.6	492.1	465.0	433.7	398.2	363.1	336.0
40°	650.6	604.0	581.1	554.7	502.0	465.8	438.7	408.5	371.9	337.5	313.4
42.5°	628.0	581.1	558.6	533.7	479.1	439.1	410.8	380.6	345.1	313.4	292.1
45°	598.3	554.0	530.7	508.5	454.7	411.6	381.8	351.2	319.6	291.7	271.8
47.5°	563.1	524.2	500.9	479.5	428.0	384.1	352.4	321.5	294.0	270.3	252.7
50°	522.3	491.4	468.8	446.3	399.3	355.8	323.0	292.1	268.4	250.1	234.4
52.5°	478.4	455.9	434.1	413.1	368.8	327.2	292.1	263.8	244.7	230.2	217.2
55°	432.2	418.1	400.5	377.6	336.4	297.4	264.6	236.7	221.4	210.7	200.1
57.5°	384.8	377.2	362.3	341.3	302.8	267.6	237.5	212.3	199.3	191.3	183.3
60°	338.3	333.7	319.6	304.7	269.2	238.2	210.0	189.4	178.7	172.6	166.1
62.5°	292.1	291.7	282.9	267.2	236.3	209.6	184.4	166.8	158.4	154.2	148.9
65°	248.5	251.2	242.8	230.6	204.3	181.0	160.0	145.8	139.4	135.9	132.1
67.5°	208.1	211.9	205.4	195.1	173.7	153.9	137.4	126.0	120.6	118.0	114.9
70°	171.4	174.5	170.3	161.5	144.3	128.7	115.3	106.5	102.7	100.4	98.9
72.5°	138.6	140.1	136.7	130.2	117.2	105.4	93.9	87.4	84.4	82.5	80.6
75°	106.5	110.0	106.9	101.6	91.2	81.3	74.8	70.2	67.6	66.4	65.3
77.5°	79.0	81.3	79.4	75.6	69.1	61.8	57.3	55.4	53.8	51.2	50.4
80°	55.4	57.3	56.1	53.4	49.3	45.8	41.2	40.5	38.9	37.0	36.7
82.5°	37.4	37.0	36.7	34.4	32.1	30.2	27.1	27.1	24.8	24.4	24.1
85°	19.9	20.6	20.2	19.1	18.3	16.4	15.7	15.7	14.9	13.7	13.7
87.5°	8.0	8.4	8.4	7.6	7.6	6.9	7.3	6.9	6.5	5.7	5.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P231534

CATALOG NUMBER: S121-DR-LO-40-X-0048-1-U-DD-3-W

**CANDELA DISTRIBUTION (continued):**

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3
2.5°	585.3	585.7	584.5	582.2	581.1	577.6	580.7	576.9	571.9	575.7	574.6
5°	576.5	576.1	573.8	570.8	568.5	563.9	566.2	561.6	555.9	558.2	556.6
7.5°	566.6	565.8	562.8	558.2	554.4	549.0	550.9	545.6	539.5	541.8	540.2
10°	555.9	554.0	550.2	544.4	540.2	534.5	536.0	529.9	523.0	523.8	520.8
12.5°	542.9	540.2	536.0	529.9	525.0	517.7	517.3	508.5	498.6	496.7	490.6
15°	528.4	525.3	521.1	513.1	505.9	494.8	491.4	478.4	464.6	460.1	452.0
17.5°	514.3	508.9	504.0	492.1	480.7	465.0	458.5	442.9	428.7	423.4	416.1
20°	494.0	489.1	481.8	465.8	450.5	432.2	424.2	407.0	397.4	394.8	390.6
22.5°	471.5	464.6	456.6	435.2	418.4	400.9	394.4	381.4	375.7	374.9	372.6
25°	445.5	437.1	424.5	404.3	388.3	374.5	371.5	362.3	359.3	359.6	357.7
27.5°	420.7	408.5	397.1	375.7	363.1	354.3	353.5	346.3	345.1	344.8	342.1
30°	389.8	380.3	368.8	350.9	342.1	337.5	337.9	331.4	329.9	329.1	327.6
32.5°	363.1	354.7	344.0	329.9	324.9	323.4	321.1	315.7	316.5	315.7	315.7
35°	338.3	329.1	322.2	311.9	309.6	308.9	305.4	301.6	302.4	304.7	303.9
37.5°	315.7	308.9	302.4	295.9	294.4	294.0	290.2	289.0	292.1	292.1	291.3
40°	295.1	289.4	284.0	280.6	279.5	278.7	276.4	276.4	279.5	279.1	278.7
42.5°	276.4	271.1	267.6	265.7	264.6	264.6	263.4	265.3	266.9	266.5	264.6
45°	258.5	254.3	252.4	250.5	249.7	250.8	250.5	251.6	253.5	252.4	250.1
47.5°	240.9	237.9	236.7	235.2	236.3	236.7	237.1	237.9	239.0	237.1	234.8
50°	224.5	222.2	221.4	219.5	222.6	222.2	223.3	224.5	223.7	221.1	219.1
52.5°	208.5	206.9	206.5	206.5	208.1	208.1	208.8	209.6	207.7	205.0	203.1
55°	193.2	191.7	191.3	190.1	192.4	193.2	193.2	193.2	190.9	187.8	186.3
57.5°	177.9	176.0	175.6	176.8	176.8	176.8	177.1	176.8	174.5	172.2	171.0
60°	161.9	160.3	160.0	161.1	160.7	162.3	160.7	160.0	158.1	156.9	157.3
62.5°	145.8	143.9	143.9	145.1	145.1	145.8	144.3	143.2	142.0	141.3	142.4
65°	128.3	127.5	127.5	129.0	129.0	128.3	127.1	127.1	126.8	126.4	126.4
67.5°	111.9	111.5	111.9	113.4	113.0	111.9	111.1	111.5	111.5	111.9	111.9
70°	97.4	94.7	94.7	97.4	97.4	97.4	94.7	95.4	95.4	97.0	98.5
72.5°	80.6	79.0	79.0	80.6	79.4	80.9	79.4	80.6	80.9	81.7	82.5
75°	63.8	65.3	64.1	65.7	64.9	65.7	64.5	65.7	66.0	65.7	65.3
77.5°	50.4	50.8	49.6	51.2	50.8	51.2	50.4	51.2	51.2	50.4	51.2
80°	36.7	37.0	36.3	37.8	37.0	37.4	36.7	37.4	37.0	35.5	35.9
82.5°	24.4	24.8	24.1	25.6	24.4	25.2	24.1	24.4	24.1	22.5	22.9
85°	14.1	14.5	13.7	14.9	14.1	14.5	13.4	13.7	13.4	12.6	12.6
87.5°	5.7	6.1	5.3	6.1	5.7	5.7	5.0	5.3	5.3	4.6	5.0
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: P231534

CATALOG NUMBER: S121-DR-LO-40-X-0048-1-U-DD-3-W

**CANDELA DISTRIBUTION (continued):**

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3
2.5°	574.6	571.9	570.4	568.9	567.3	568.5	569.2	569.6	571.9	571.2	571.5
5°	555.9	553.2	550.9	549.4	549.0	551.3	552.4	552.1	553.2	551.7	552.4
7.5°	539.8	537.2	534.9	532.6	533.0	535.6	537.2	537.2	538.7	536.4	536.4
10°	520.8	517.3	513.5	510.8	510.4	512.7	513.1	512.4	515.4	515.4	516.9
12.5°	490.2	485.2	482.6	475.7	475.3	477.6	478.8	481.0	482.2	483.7	486.8
15°	450.9	446.3	442.5	435.2	434.9	437.1	435.6	441.7	444.0	446.3	449.4
17.5°	415.0	411.9	408.1	402.8	402.0	404.3	403.9	408.1	409.7	411.2	413.9
20°	389.8	386.0	385.2	381.8	381.8	383.3	382.9	384.8	385.6	385.6	387.1
22.5°	372.2	369.9	368.8	366.5	366.5	367.7	368.0	368.8	368.8	367.7	368.4
25°	357.4	355.1	353.2	350.1	350.5	351.6	352.0	352.8	353.2	352.8	353.5
27.5°	341.3	339.0	337.5	335.6	336.0	337.1	336.7	337.5	337.5	337.5	338.3
30°	327.2	325.7	325.7	324.5	325.7	326.4	326.0	326.0	325.3	323.8	323.8
32.5°	315.0	314.6	314.6	314.2	314.2	314.2	314.6	315.0	314.2	313.1	312.7
35°	303.5	302.8	302.8	301.6	302.8	302.8	302.8	303.1	302.4	301.6	300.5
37.5°	291.7	291.7	290.9	290.9	290.5	291.3	290.9	290.9	290.5	289.4	288.6
40°	279.1	278.7	277.2	276.8	276.4	277.2	276.4	277.2	277.2	276.8	276.4
42.5°	264.6	264.2	263.4	262.7	262.3	263.1	262.3	262.7	263.1	263.1	262.3
45°	249.7	250.1	248.5	246.6	248.2	248.2	247.8	248.2	248.2	248.5	247.8
47.5°	234.8	234.8	233.3	232.5	232.1	232.1	231.4	232.1	232.9	233.7	232.9
50°	218.8	218.4	216.5	214.6	215.7	216.1	214.9	215.7	216.1	217.2	217.2
52.5°	202.3	202.3	200.8	199.7	201.2	200.8	200.1	200.1	200.4	200.1	200.4
55°	186.3	187.1	185.9	185.2	185.5	185.9	185.5	185.5	185.5	185.2	184.8
57.5°	171.4	172.2	171.0	170.7	171.4	171.8	170.7	170.7	170.7	170.7	169.9
60°	156.9	157.3	156.9	156.2	157.3	157.7	156.9	156.5	156.2	155.4	155.4
62.5°	142.0	142.4	142.8	142.4	143.2	143.6	142.8	142.4	142.0	140.5	140.1
65°	127.1	127.9	128.7	128.7	129.4	129.0	128.7	128.3	127.5	126.4	125.2
67.5°	112.2	113.4	114.2	114.2	114.9	114.5	114.2	113.8	113.0	111.9	110.7
70°	97.7	98.9	98.9	99.3	99.3	99.6	98.5	98.5	98.5	97.0	95.1
72.5°	81.3	82.5	82.1	82.5	82.5	81.7	81.7	81.7	82.1	80.6	79.8
75°	65.7	66.4	66.0	66.4	65.3	64.9	66.0	64.9	64.9	64.9	64.1
77.5°	49.6	50.0	49.6	50.0	48.1	49.6	49.3	48.1	48.5	48.5	50.0
80°	34.7	35.1	34.4	34.4	32.8	34.0	34.0	33.2	33.2	33.2	34.7
82.5°	22.1	22.1	21.8	21.8	20.6	21.8	21.4	20.6	20.6	21.0	21.8
85°	12.6	12.2	11.8	12.2	11.1	11.8	11.8	11.5	11.5	11.5	11.8
87.5°	5.0	4.6	4.6	4.6	4.6	4.6	4.6	4.2	4.2	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: P231534

CATALOG NUMBER: S121-DR-LO-40-X-0048-1-U-DD-3-W

**CANDELA DISTRIBUTION (continued):**

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3
2.5°	573.8	575.7	579.5	583.4	574.2	575.7	577.6	580.3	582.6	583.7	584.9
5°	554.4	557.4	561.6	567.0	560.1	560.5	564.7	568.5	571.9	573.4	575.4
7.5°	537.9	540.2	546.0	549.8	544.0	544.8	550.2	555.9	560.1	562.4	565.0
10°	519.2	522.7	530.3	534.1	529.2	529.5	534.1	541.0	547.1	549.8	553.2
12.5°	490.6	495.9	507.0	512.7	512.4	513.5	518.5	525.3	531.8	535.3	539.8
15°	450.5	460.1	474.2	482.6	487.9	492.1	499.8	509.3	516.2	519.2	523.0
17.5°	415.4	423.8	437.1	446.3	455.9	463.9	474.6	488.3	497.8	502.0	506.6
20°	388.3	392.9	403.5	411.6	422.3	431.4	444.0	462.3	475.7	481.4	487.5
22.5°	369.2	373.0	378.3	383.7	392.1	400.1	411.9	432.9	450.1	457.4	466.5
25°	353.9	357.0	360.4	363.1	368.4	370.3	381.8	402.4	421.9	430.7	442.1
27.5°	339.0	342.8	345.9	347.8	350.9	350.1	358.5	373.4	392.9	402.8	414.2
30°	323.8	326.4	330.6	332.5	336.0	332.5	336.7	347.8	365.0	374.5	386.0
32.5°	311.9	311.9	313.8	316.1	321.1	318.0	319.2	326.0	340.2	348.6	359.6
35°	300.5	300.1	300.5	300.8	305.0	304.3	303.9	307.3	318.4	325.3	334.8
37.5°	288.2	287.9	287.9	287.5	289.8	290.2	290.2	290.9	298.6	302.8	311.9
40°	275.3	274.9	275.3	274.9	275.6	275.3	275.6	276.4	281.0	284.0	290.2
42.5°	261.9	262.3	262.3	262.3	261.9	260.8	261.1	261.5	265.0	266.1	271.1
45°	247.4	248.5	248.5	248.2	248.2	247.4	245.9	247.0	249.3	249.3	253.1
47.5°	232.9	233.3	234.0	234.0	234.0	233.7	231.4	232.1	234.0	233.3	235.9
50°	216.9	218.0	218.8	219.5	219.9	219.1	217.2	216.9	216.9	217.6	218.8
52.5°	200.4	202.0	203.1	204.3	205.0	204.6	203.5	202.0	202.3	202.3	203.1
55°	184.8	185.2	187.1	189.0	189.4	189.4	188.6	186.7	187.8	186.7	187.8
57.5°	169.1	169.5	170.7	170.7	172.9	173.7	173.3	171.8	172.6	171.4	172.2
60°	154.6	154.6	154.6	155.8	156.5	157.7	157.7	156.2	156.5	156.2	156.5
62.5°	139.7	139.4	139.0	139.7	139.7	141.3	141.6	140.5	140.5	141.3	140.5
65°	124.8	124.5	124.1	122.6	123.3	124.5	125.6	124.8	124.5	124.8	124.5
67.5°	110.3	109.6	109.2	107.3	107.7	108.0	109.2	108.8	108.8	108.8	108.4
70°	97.0	93.9	93.5	92.8	91.2	91.6	92.0	92.0	91.6	92.0	91.2
72.5°	80.9	79.0	77.9	77.9	77.9	76.4	76.7	76.7	76.0	76.4	75.6
75°	65.7	64.1	63.8	63.8	63.0	61.8	61.8	61.1	61.1	61.1	60.3
77.5°	50.0	49.3	49.3	49.3	48.9	47.7	48.1	47.3	46.6	47.0	47.3
80°	35.1	34.7	34.7	35.1	35.5	34.4	34.7	34.0	33.6	33.6	32.8
82.5°	22.1	22.1	22.1	22.9	23.3	23.7	22.9	22.1	22.1	22.1	22.5
85°	12.2	11.8	12.2	12.6	12.6	12.2	12.6	12.6	12.6	12.6	11.8
87.5°	4.6	4.2	4.6	4.6	4.6	4.2	4.6	4.6	4.6	5.0	5.0
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: P231534

CATALOG NUMBER: S121-DR-LO-40-X-0048-1-U-DD-3-W

**CANDELA DISTRIBUTION (continued):**

	345°	350°	355°	360°
0°	596.3	596.3	596.3	596.3
2.5°	589.1	596.0	600.9	603.2
5°	580.7	589.1	596.0	600.5
7.5°	571.5	580.7	589.9	596.3
10°	560.8	572.3	581.8	590.6
12.5°	548.6	561.2	571.9	583.0
15°	534.9	549.0	561.2	573.8
17.5°	519.2	535.3	548.6	563.9
20°	501.3	519.6	534.9	551.3
22.5°	482.2	502.4	520.0	539.1
25°	460.8	483.3	504.0	525.0
27.5°	436.0	462.7	486.4	508.9
30°	409.7	439.1	466.5	491.4
32.5°	382.2	414.2	445.5	471.9
35°	356.2	388.7	423.0	450.1
37.5°	331.8	362.3	399.0	427.6
40°	308.1	336.0	372.6	401.6
42.5°	286.7	311.5	346.3	372.6
45°	266.1	288.2	318.8	342.5
47.5°	246.6	266.9	292.4	312.3
50°	228.3	245.9	266.5	283.3
52.5°	210.4	225.6	242.1	255.4
55°	192.8	205.8	217.2	228.7
57.5°	176.0	185.9	194.3	205.0
60°	159.2	166.8	172.2	182.1
62.5°	142.4	148.1	151.6	160.3
65°	125.6	129.8	132.5	139.7
67.5°	109.2	112.2	113.8	120.3
70°	91.6	92.8	94.7	101.2
72.5°	76.0	76.7	77.9	82.1
75°	60.7	61.8	62.2	65.3
77.5°	47.7	47.3	48.5	49.3
80°	33.2	33.6	34.7	35.1
82.5°	21.4	21.8	22.9	22.9
85°	11.8	12.2	13.0	12.6
87.5°	4.6	5.0	5.3	5.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)