

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: P231531

Luminaire Tested: **S121-DR-LO-27-X-0048-1-U-DD-3-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231531  
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-27-X-0048-1-U-DD-3-W  
Description: DEFINE 1 LED LINEAR DIRECT RECESSED LED LUMINAIRE WITH ASYMMETRIC LENS.  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1102.7 lumens  
Efficiency: N/A  
Efficacy: 81.1 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

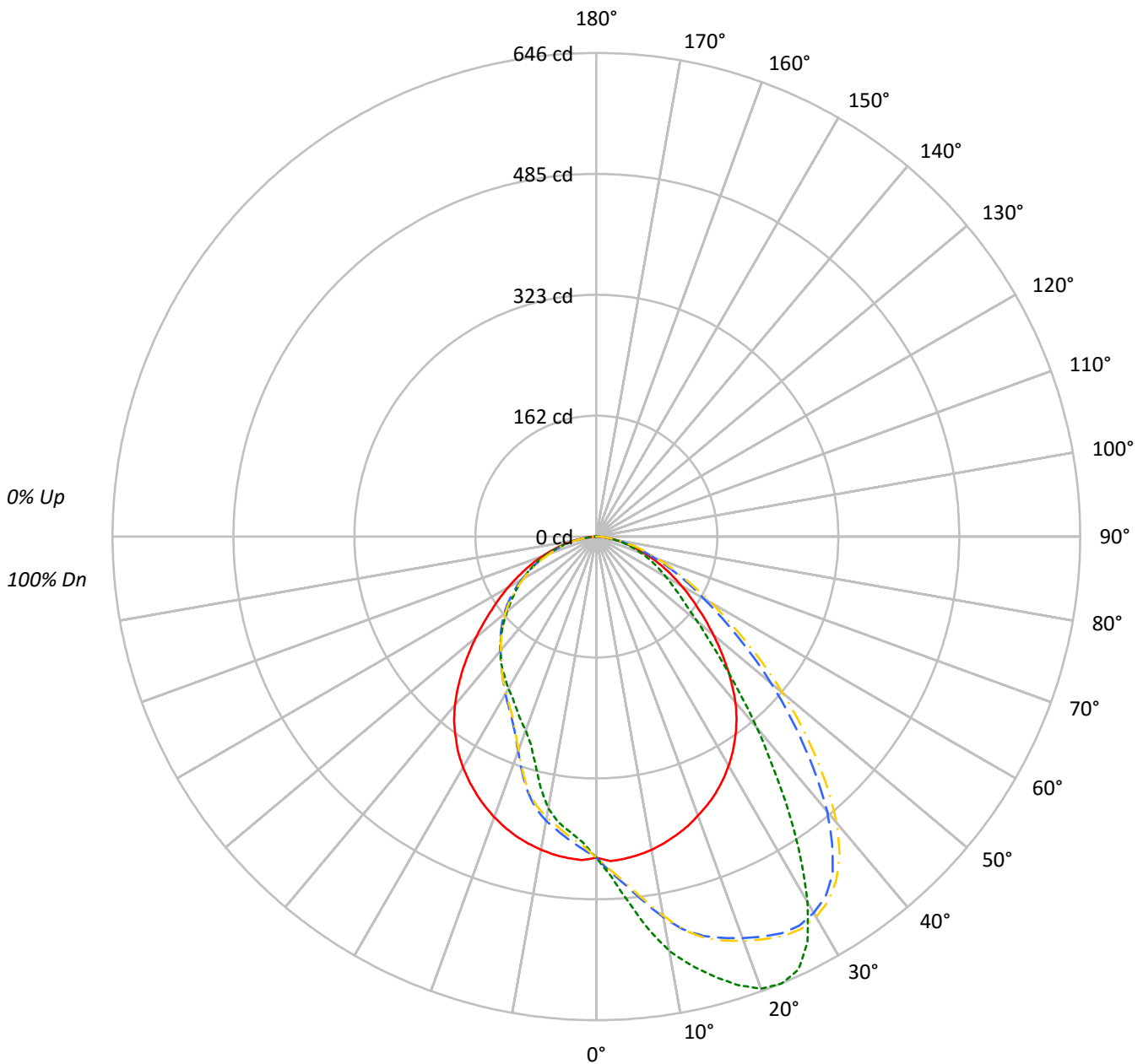
Input Watts (W): 13.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot



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



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**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°	11991	11991	11991	11991
5°	12124	13735	12098	11127
10°	12060	15957	12060	10470
15°	11945	17606	11986	9100
20°	11797	19118	11862	8203
25°	11648	19687	11697	7801
30°	11409	18201	11489	7580
35°	11051	15259	11171	7433
40°	10544	12157	10722	7277
45°	9738	9426	9987	7057
50°	8864	7598	9138	6759
55°	8018	6570	8301	6517
60°	7325	5972	7616	6341
65°	6648	5577	6939	6139
70°	5951	5142	6261	5861
75°	5077	4656	5455	5044
80°	4073	4025	4685	3928
85°	2919	3272	3625	2727



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	41.9	3.8
10°-20°	125.0	11.3
20°-30°	192.0	17.4
30°-40°	218.6	19.8
40°-50°	198.7	18.0
50°-60°	155.0	14.1
60°-70°	105.0	9.5
70°-80°	53.8	4.9
80°-90°	12.6	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°	358.9	32.5
0°-40°	577.5	52.4
0°-60°	931.3	84.5
0°-90°	1102.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1102.7	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	429	429	429	429	429	
5°	432	489	431	396	432	41
15°	413	608	414	314	413	116
25°	378	638	379	253	378	174
35°	324	447	327	218	324	202
45°	246	238	253	178	246	190
55°	164	135	170	134	164	148
65°	100	84	105	93	100	100
75°	47	43	50	47	47	50
85°	9	10	11	8	9	11
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°	428.9	428.9	428.9	428.9	428.9	428.9	428.9	428.9	428.9	428.9	428.9
2.5°	433.9	432.0	433.1	436.1	439.4	440.5	441.0	442.4	444.0	446.8	449.0
5°	432.0	432.2	435.5	440.8	446.0	448.2	450.1	453.9	458.3	463.8	468.8
7.5°	428.9	431.1	437.2	444.6	452.6	456.4	459.4	467.1	475.1	483.9	492.4
10°	424.8	429.2	437.5	447.6	459.4	464.9	470.1	481.7	493.2	505.3	516.5
12.5°	419.3	425.9	436.6	450.1	466.0	473.4	480.6	495.7	510.2	524.5	537.7
15°	412.7	421.5	435.0	452.0	471.5	480.6	489.4	506.9	523.1	538.2	552.2
17.5°	405.6	416.3	432.5	453.1	475.6	485.5	494.6	513.5	530.0	546.2	562.1
20°	396.5	410.5	429.2	452.3	476.2	486.3	496.2	515.4	533.0	552.0	570.6
22.5°	387.8	402.3	424.6	448.7	472.3	483.3	493.5	514.3	534.7	556.6	578.3
25°	377.6	394.1	417.7	441.9	465.5	476.5	488.0	511.6	536.3	561.0	584.7
27.5°	366.1	383.6	407.8	431.4	455.9	468.5	481.7	509.1	537.1	563.2	586.0
30°	353.4	372.6	395.2	418.2	445.7	460.0	475.1	505.8	536.0	559.7	580.5
32.5°	339.4	358.6	379.5	405.3	434.7	450.9	468.5	499.8	530.0	550.9	569.5
35°	323.8	341.1	362.5	390.8	423.5	441.3	458.6	490.7	519.6	537.1	550.0
37.5°	307.6	324.9	344.9	375.7	410.8	430.3	446.5	477.3	504.2	516.8	517.1
40°	288.9	304.8	326.2	360.0	396.8	414.9	432.8	461.1	484.1	489.1	479.5
42.5°	268.0	284.8	307.8	343.8	380.3	399.3	414.7	441.9	459.2	455.9	435.0
45°	246.3	264.7	289.2	326.0	361.1	378.4	394.1	418.2	428.9	418.5	389.7
47.5°	224.6	244.4	269.9	306.5	339.4	356.2	370.7	390.8	395.2	378.1	345.7
50°	203.8	223.8	250.2	285.3	315.8	332.3	344.6	360.0	358.9	336.9	304.0
52.5°	183.7	204.3	232.0	262.5	291.1	305.6	317.2	327.1	322.1	296.3	263.9
55°	164.5	184.5	209.0	235.9	265.8	277.4	287.8	293.3	285.0	259.0	226.8
57.5°	147.5	165.3	190.0	213.9	239.5	249.1	257.9	259.5	248.5	220.2	193.6
60°	131.0	146.9	168.6	187.3	211.7	220.8	227.1	226.3	214.5	190.9	165.3
62.5°	115.3	129.1	147.5	165.9	184.5	191.7	197.2	197.2	182.6	162.0	142.2
65°	100.5	112.0	126.6	140.1	158.5	163.9	168.3	164.5	154.1	134.6	120.0
67.5°	86.5	95.6	106.8	118.1	133.7	137.9	140.6	139.5	128.2	112.0	100.2
70°	72.8	79.9	88.7	97.5	109.8	112.9	115.3	114.2	105.5	93.6	81.3
72.5°	59.0	64.3	71.4	78.8	87.9	90.1	92.3	91.2	82.7	75.0	65.9
75°	47.0	50.5	55.5	61.2	67.8	70.0	71.4	70.9	64.3	57.9	51.9
77.5°	35.4	37.9	41.7	45.9	50.3	51.1	52.5	51.9	47.8	43.4	39.3
80°	25.3	26.6	29.4	31.9	34.9	35.7	36.2	36.2	33.2	30.5	28.3
82.5°	16.5	17.3	18.9	20.3	22.2	22.5	23.1	23.1	21.1	20.0	18.9
85°	9.1	9.6	10.7	11.3	12.1	11.8	12.4	12.6	11.8	11.5	11.0
87.5°	3.8	3.8	4.1	4.7	4.4	4.4	4.7	4.9	4.7	4.4	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



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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	428.9	428.9	428.9	428.9	428.9	428.9	428.9	428.9	428.9	428.9	428.9
2.5°	450.6	448.2	451.5	454.5	455.3	456.7	453.9	452.3	451.7	454.2	452.6
5°	472.6	472.3	477.8	482.5	483.9	486.3	485.0	484.7	485.2	489.4	487.4
7.5°	499.0	501.4	509.7	516.5	518.7	522.3	522.0	522.6	523.7	528.1	526.4
10°	528.6	530.6	540.4	549.2	552.0	555.5	553.3	557.2	558.6	562.1	559.9
12.5°	550.0	553.3	563.8	573.4	575.9	578.3	578.1	581.1	583.6	586.8	585.5
15°	564.3	568.4	580.8	591.5	594.8	597.0	597.3	601.1	603.9	608.3	609.9
17.5°	575.3	581.9	595.9	608.3	611.8	614.3	616.0	620.3	623.9	628.0	629.4
20°	585.5	594.8	610.7	623.6	626.9	628.9	631.3	634.9	639.0	642.6	643.4
22.5°	594.3	605.2	620.6	631.6	634.1	634.9	636.6	639.0	643.4	646.2	647.5
25°	599.2	608.3	622.0	631.3	633.3	631.9	633.0	633.0	636.6	638.2	641.2
27.5°	597.3	605.0	615.7	620.6	619.8	616.0	611.0	606.9	610.2	610.2	614.3
30°	588.2	591.8	595.1	591.5	583.8	579.4	570.6	562.1	564.9	563.8	567.9
32.5°	569.3	564.1	558.8	547.6	536.6	529.5	516.3	511.6	507.2	506.7	510.2
35°	539.3	524.8	511.1	494.0	481.7	472.9	457.2	445.4	446.5	447.1	449.8
37.5°	499.5	477.6	458.1	437.7	426.5	415.2	399.8	393.5	389.1	386.1	391.3
40°	453.7	426.5	404.0	383.1	372.9	360.6	346.3	340.0	335.6	333.1	336.7
42.5°	406.4	377.3	353.7	332.3	321.6	310.9	297.1	291.1	286.1	282.6	286.7
45°	360.6	330.4	305.9	284.8	274.1	265.6	252.1	246.9	242.2	238.4	242.8
47.5°	315.8	290.5	262.0	241.7	232.6	224.4	213.6	209.3	205.7	202.9	205.7
50°	273.8	249.1	222.4	205.7	198.5	191.1	182.6	179.3	176.6	174.7	176.3
52.5°	235.3	212.3	189.8	173.8	170.0	164.5	157.9	155.4	152.1	151.6	153.5
55°	200.7	181.0	162.6	150.8	146.9	142.8	137.9	136.2	134.3	134.8	134.6
57.5°	171.4	154.9	139.8	131.5	128.0	124.7	121.1	120.3	119.5	119.7	119.5
60°	146.4	132.9	121.1	114.2	112.0	109.6	107.1	105.7	106.3	106.8	107.6
62.5°	124.4	114.0	104.6	99.4	98.0	96.4	95.0	94.2	94.7	95.3	96.1
65°	105.5	97.2	90.3	86.8	85.4	84.6	83.8	84.3	83.8	84.3	85.1
67.5°	88.7	82.4	77.2	75.0	74.1	73.3	72.8	73.6	73.3	73.6	74.1
70°	73.6	68.4	64.8	63.2	62.6	62.1	61.8	61.8	62.3	62.9	63.4
72.5°	59.3	56.3	54.1	52.7	52.2	51.9	51.6	52.2	52.2	52.7	53.3
75°	47.0	45.0	43.1	42.8	42.6	42.3	42.3	42.8	42.8	43.1	43.4
77.5°	36.8	35.2	33.5	33.5	33.2	33.8	33.2	33.8	33.2	33.8	34.1
80°	27.2	25.8	25.5	24.7	24.4	25.3	24.4	25.0	24.4	25.0	25.3
82.5°	18.4	17.6	17.3	16.8	16.8	17.3	16.8	17.0	16.8	17.0	17.3
85°	10.7	10.4	10.2	10.2	9.9	10.4	9.9	10.2	9.9	10.2	10.4
87.5°	4.7	4.7	4.4	4.7	4.1	4.7	4.4	4.7	4.9	4.7	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



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**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	428.9	428.9	428.9	428.9	428.9	428.9	428.9	428.9	428.9	428.9	428.9
2.5°	454.5	451.7	450.9	448.7	449.3	452.0	451.2	452.8	446.2	441.0	437.5
5°	488.3	483.6	481.1	477.3	477.0	477.8	474.8	474.8	465.5	457.8	451.2
7.5°	527.0	520.7	516.8	511.6	510.8	509.7	504.2	501.4	489.4	477.6	467.4
10°	559.9	553.6	549.5	544.6	543.5	541.8	534.4	529.2	514.1	499.0	485.0
12.5°	585.5	578.9	574.2	569.8	568.2	566.5	559.7	551.1	537.7	519.0	502.5
15°	608.5	601.4	595.9	590.7	587.9	584.7	576.7	568.7	554.7	534.7	516.8
17.5°	627.8	620.1	613.5	608.3	604.7	600.3	590.7	579.7	565.7	544.6	526.2
20°	641.8	634.1	626.9	622.3	619.3	612.9	602.8	590.1	574.8	551.7	530.8
22.5°	646.4	639.3	633.0	629.4	626.4	621.4	612.4	600.0	582.2	556.9	533.3
25°	640.7	636.6	632.2	630.2	628.0	624.2	617.6	606.1	588.8	561.6	534.7
27.5°	615.4	616.5	617.1	620.1	619.5	620.3	616.5	606.3	591.2	564.9	535.5
30°	572.0	578.3	584.1	591.2	592.6	602.2	605.2	598.4	586.6	564.3	535.2
32.5°	521.5	525.9	535.8	543.2	551.1	568.4	579.7	583.6	576.7	558.3	531.4
35°	460.8	467.4	480.3	491.0	500.1	523.4	542.1	557.5	558.8	547.6	522.6
37.5°	402.3	409.7	422.9	436.1	443.2	471.5	496.0	521.2	533.3	530.8	510.8
40°	347.7	355.6	368.5	382.3	388.0	417.4	444.3	477.3	499.0	508.3	494.3
42.5°	297.1	305.4	318.0	330.1	342.2	365.8	393.0	429.8	457.5	476.7	472.3
45°	251.5	259.2	271.6	282.3	290.3	317.5	344.1	377.3	412.7	436.4	443.8
47.5°	213.1	219.7	230.7	240.3	251.0	272.1	298.8	331.7	368.0	400.4	411.1
50°	182.3	187.8	197.2	204.9	212.8	231.8	256.2	288.3	324.3	358.9	374.8
52.5°	157.9	162.3	170.0	175.2	182.1	197.4	218.9	248.5	282.3	317.7	337.2
55°	138.4	141.7	148.6	151.3	156.8	169.2	186.7	213.6	242.8	277.4	299.3
57.5°	122.2	124.4	130.2	132.1	136.2	145.8	159.8	182.6	207.9	239.7	266.1
60°	108.7	110.4	114.0	115.6	118.9	126.3	137.3	155.2	176.9	205.4	227.1
62.5°	96.4	97.5	100.2	101.3	103.8	109.3	118.1	132.4	149.9	174.1	197.4
65°	85.4	86.0	88.2	88.2	90.3	94.5	101.1	112.9	126.3	146.9	167.0
67.5°	74.4	74.7	75.5	76.6	78.3	81.3	86.0	95.3	106.0	122.8	139.5
70°	63.4	63.7	64.8	64.8	65.9	68.1	72.5	79.4	87.6	101.1	114.8
72.5°	53.3	53.8	54.4	54.1	55.2	56.6	59.6	64.0	72.2	81.6	92.5
75°	43.7	43.4	44.5	44.2	45.0	45.9	48.3	51.4	56.8	63.4	72.2
77.5°	34.3	34.1	34.9	35.4	35.2	36.0	37.6	39.3	43.1	47.8	53.8
80°	25.5	25.8	25.8	26.4	26.4	26.6	27.7	28.6	31.3	34.1	38.2
82.5°	17.3	17.8	17.8	18.4	18.1	18.4	18.9	19.5	21.1	22.5	25.0
85°	10.4	10.4	10.7	11.0	11.0	11.0	11.5	11.5	12.4	12.9	14.3
87.5°	4.9	4.7	4.9	5.2	4.9	5.2	4.9	5.2	5.8	5.5	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





TEST NUMBER: P231531

CATALOG NUMBER: S121-DR-LO-27-X-0048-1-U-DD-3-W

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	428.9	428.9	428.9	428.9	428.9	428.9	428.9	428.9	428.9	428.9	428.9
2.5°	435.3	436.1	435.5	434.7	434.7	437.2	436.6	432.5	428.4	423.7	422.1
5°	446.8	445.4	443.5	441.6	439.4	439.7	437.2	431.1	425.4	419.3	416.9
7.5°	459.4	454.8	451.7	448.4	443.2	441.6	436.6	428.7	421.5	414.4	410.8
10°	473.4	464.6	459.4	454.5	446.5	441.9	434.7	424.8	416.6	408.1	404.0
12.5°	487.2	474.5	467.7	460.5	448.7	441.6	432.0	419.9	410.3	400.9	395.7
15°	499.0	484.1	475.4	466.6	450.6	439.7	427.6	414.1	402.3	392.7	386.4
17.5°	507.2	490.5	481.4	471.2	451.7	437.2	422.4	407.0	394.1	383.1	375.7
20°	510.5	492.9	483.6	472.9	451.2	433.1	416.3	398.7	385.0	373.7	363.9
22.5°	510.2	491.6	481.7	470.7	447.9	428.4	408.9	389.4	374.6	361.7	350.4
25°	507.8	486.9	476.2	464.9	442.1	422.1	400.7	379.2	363.0	348.2	334.5
27.5°	505.3	480.3	468.5	457.0	433.9	413.6	390.8	368.0	350.1	333.1	317.2
30°	502.3	473.2	459.7	446.5	421.5	401.8	379.5	355.9	336.1	316.9	297.7
32.5°	497.9	466.0	451.2	435.5	408.1	388.0	366.6	343.0	320.5	298.5	278.2
35°	491.6	457.8	442.1	424.8	393.0	371.8	351.8	327.3	304.3	279.8	259.5
37.5°	481.4	447.6	430.9	413.0	377.3	354.0	334.5	312.0	286.4	261.2	241.7
40°	467.9	434.4	418.0	399.0	361.1	335.0	315.5	293.8	267.5	242.8	225.5
42.5°	451.7	418.0	401.8	383.9	344.6	315.8	295.5	273.8	248.2	225.5	210.1
45°	430.3	398.5	381.7	365.8	327.1	296.0	274.6	252.6	229.9	209.8	195.5
47.5°	405.1	377.0	360.3	344.9	307.8	276.3	253.5	231.2	211.5	194.4	181.8
50°	375.7	353.4	337.2	321.0	287.2	255.9	232.3	210.1	193.1	179.9	168.6
52.5°	344.1	327.9	312.2	297.1	265.3	235.3	210.1	189.8	176.0	165.6	156.3
55°	310.9	300.7	288.1	271.6	241.9	213.9	190.3	170.3	159.3	151.6	143.9
57.5°	276.8	271.3	260.6	245.5	217.8	192.5	170.8	152.7	143.3	137.6	131.8
60°	243.3	240.0	229.9	219.1	193.6	171.4	151.0	136.2	128.5	124.1	119.5
62.5°	210.1	209.8	203.5	192.2	170.0	150.8	132.6	120.0	114.0	110.9	107.1
65°	178.8	180.7	174.7	165.9	146.9	130.2	115.1	104.9	100.2	97.8	95.0
67.5°	149.7	152.4	147.7	140.3	124.9	110.7	98.9	90.6	86.8	84.9	82.7
70°	123.3	125.5	122.5	116.2	103.8	92.5	82.9	76.6	73.9	72.2	71.1
72.5°	99.7	100.8	98.3	93.6	84.3	75.8	67.6	62.9	60.7	59.3	57.9
75°	76.6	79.1	76.9	73.0	65.6	58.5	53.8	50.5	48.6	47.8	47.0
77.5°	56.8	58.5	57.1	54.4	49.7	44.5	41.2	39.8	38.7	36.8	36.2
80°	39.8	41.2	40.4	38.4	35.4	33.0	29.7	29.1	28.0	26.6	26.4
82.5°	26.9	26.6	26.4	24.7	23.1	21.7	19.5	19.5	17.8	17.6	17.3
85°	14.3	14.8	14.6	13.7	13.2	11.8	11.3	11.3	10.7	9.9	9.9
87.5°	5.8	6.0	6.0	5.5	5.5	4.9	5.2	4.9	4.7	4.1	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



TEST NUMBER: P231531

CATALOG NUMBER: S121-DR-LO-27-X-0048-1-U-DD-3-W

**CANDELA DISTRIBUTION (continued):**

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	428.9	428.9	428.9	428.9	428.9	428.9	428.9	428.9	428.9	428.9	428.9
2.5°	421.0	421.3	420.4	418.8	418.0	415.5	417.7	414.9	411.4	414.1	413.3
5°	414.7	414.4	412.7	410.5	408.9	405.6	407.3	404.0	399.8	401.5	400.4
7.5°	407.5	407.0	404.8	401.5	398.7	394.9	396.3	392.4	388.0	389.7	388.6
10°	399.8	398.5	395.7	391.6	388.6	384.5	385.6	381.2	376.2	376.8	374.6
12.5°	390.5	388.6	385.6	381.2	377.6	372.4	372.1	365.8	358.6	357.3	352.9
15°	380.1	377.9	374.8	369.1	363.9	355.9	353.4	344.1	334.2	330.9	325.1
17.5°	369.9	366.1	362.5	354.0	345.7	334.5	329.8	318.6	308.4	304.5	299.3
20°	355.3	351.8	346.6	335.0	324.0	310.9	305.1	292.7	285.9	283.9	280.9
22.5°	339.1	334.2	328.4	313.1	301.0	288.3	283.7	274.3	270.2	269.7	268.0
25°	320.5	314.4	305.4	290.8	279.3	269.4	267.2	260.6	258.4	258.7	257.3
27.5°	302.6	293.8	285.6	270.2	261.2	254.8	254.3	249.1	248.2	248.0	246.1
30°	280.4	273.5	265.3	252.4	246.1	242.8	243.0	238.4	237.3	236.7	235.6
32.5°	261.2	255.1	247.4	237.3	233.7	232.6	230.9	227.1	227.7	227.1	227.1
35°	243.3	236.7	231.8	224.4	222.7	222.2	219.7	216.9	217.5	219.1	218.6
37.5°	227.1	222.2	217.5	212.8	211.7	211.5	208.7	207.9	210.1	210.1	209.5
40°	212.3	208.2	204.3	201.8	201.0	200.5	198.8	198.8	201.0	200.7	200.5
42.5°	198.8	195.0	192.5	191.1	190.3	190.3	189.5	190.9	192.0	191.7	190.3
45°	185.9	182.9	181.5	180.1	179.6	180.4	180.1	181.0	182.3	181.5	179.9
47.5°	173.3	171.1	170.3	169.2	170.0	170.3	170.5	171.1	171.9	170.5	168.9
50°	161.5	159.8	159.3	157.9	160.1	159.8	160.6	161.5	160.9	159.0	157.6
52.5°	149.9	148.8	148.6	148.6	149.7	149.7	150.2	150.8	149.4	147.5	146.1
55°	139.0	137.9	137.6	136.8	138.4	139.0	139.0	139.0	137.3	135.1	134.0
57.5°	128.0	126.6	126.3	127.1	127.1	127.1	127.4	127.1	125.5	123.9	123.0
60°	116.4	115.3	115.1	115.9	115.6	116.7	115.6	115.1	113.7	112.9	113.1
62.5°	104.9	103.5	103.5	104.4	104.4	104.9	103.8	103.0	102.2	101.6	102.4
65°	92.3	91.7	91.7	92.8	92.8	92.3	91.4	91.4	91.2	90.9	90.9
67.5°	80.5	80.2	80.5	81.6	81.3	80.5	79.9	80.2	80.2	80.5	80.5
70°	70.0	68.1	68.1	70.0	70.0	70.0	68.1	68.7	68.7	69.8	70.9
72.5°	57.9	56.8	56.8	57.9	57.1	58.2	57.1	57.9	58.2	58.8	59.3
75°	45.9	47.0	46.1	47.2	46.7	47.2	46.4	47.2	47.5	47.2	47.0
77.5°	36.2	36.5	35.7	36.8	36.5	36.8	36.2	36.8	36.8	36.2	36.8
80°	26.4	26.6	26.1	27.2	26.6	26.9	26.4	26.9	26.6	25.5	25.8
82.5°	17.6	17.8	17.3	18.4	17.6	18.1	17.3	17.6	17.3	16.2	16.5
85°	10.2	10.4	9.9	10.7	10.2	10.4	9.6	9.9	9.6	9.1	9.1
87.5°	4.1	4.4	3.8	4.4	4.1	4.1	3.6	3.8	3.8	3.3	3.6
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: P231531

CATALOG NUMBER: S121-DR-LO-27-X-0048-1-U-DD-3-W

**CANDELA DISTRIBUTION (continued):**

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	428.9	428.9	428.9	428.9	428.9	428.9	428.9	428.9	428.9	428.9	428.9
2.5°	413.3	411.4	410.3	409.2	408.1	408.9	409.4	409.7	411.4	410.8	411.1
5°	399.8	397.9	396.3	395.2	394.9	396.5	397.4	397.1	397.9	396.8	397.4
7.5°	388.3	386.4	384.7	383.1	383.4	385.3	386.4	386.4	387.5	385.8	385.8
10°	374.6	372.1	369.4	367.4	367.2	368.8	369.1	368.5	370.7	370.7	371.8
12.5°	352.6	349.0	347.1	342.2	341.9	343.5	344.4	346.0	346.8	347.9	350.1
15°	324.3	321.0	318.3	313.1	312.8	314.4	313.3	317.7	319.4	321.0	323.2
17.5°	298.5	296.3	293.6	289.7	289.2	290.8	290.5	293.6	294.7	295.8	297.7
20°	280.4	277.6	277.1	274.6	274.6	275.7	275.4	276.8	277.4	277.4	278.5
22.5°	267.7	266.1	265.3	263.6	263.6	264.5	264.7	265.3	265.3	264.5	265.0
25°	257.0	255.4	254.0	251.8	252.1	252.9	253.2	253.7	254.0	253.7	254.3
27.5°	245.5	243.9	242.8	241.4	241.7	242.5	242.2	242.8	242.8	242.8	243.3
30°	235.3	234.2	234.2	233.4	234.2	234.8	234.5	234.5	234.0	232.9	232.9
32.5°	226.6	226.3	226.3	226.0	226.0	226.0	226.3	226.6	226.0	225.2	224.9
35°	218.3	217.8	217.8	216.9	217.8	217.8	217.8	218.0	217.5	216.9	216.1
37.5°	209.8	209.8	209.3	209.3	209.0	209.5	209.3	209.3	209.0	208.2	207.6
40°	200.7	200.5	199.4	199.1	198.8	199.4	198.8	199.4	199.4	199.1	198.8
42.5°	190.3	190.0	189.5	188.9	188.7	189.2	188.7	188.9	189.2	189.2	188.7
45°	179.6	179.9	178.8	177.4	178.5	178.5	178.2	178.5	178.5	178.8	178.2
47.5°	168.9	168.9	167.8	167.2	167.0	167.0	166.4	167.0	167.5	168.1	167.5
50°	157.4	157.1	155.7	154.3	155.2	155.4	154.6	155.2	155.4	156.3	156.3
52.5°	145.5	145.5	144.4	143.6	144.7	144.4	143.9	143.9	144.2	143.9	144.2
55°	134.0	134.6	133.7	133.2	133.5	133.7	133.5	133.5	133.5	133.2	132.9
57.5°	123.3	123.9	123.0	122.8	123.3	123.6	122.8	122.8	122.8	122.8	122.2
60°	112.9	113.1	112.9	112.3	113.1	113.4	112.9	112.6	112.3	111.8	111.8
62.5°	102.2	102.4	102.7	102.4	103.0	103.3	102.7	102.4	102.2	101.1	100.8
65°	91.4	92.0	92.5	92.5	93.1	92.8	92.5	92.3	91.7	90.9	90.1
67.5°	80.7	81.6	82.1	82.1	82.7	82.4	82.1	81.8	81.3	80.5	79.6
70°	70.3	71.1	71.1	71.4	71.4	71.7	70.9	70.9	70.9	69.8	68.4
72.5°	58.5	59.3	59.0	59.3	59.3	58.8	58.8	58.8	59.0	57.9	57.4
75°	47.2	47.8	47.5	47.8	47.0	46.7	47.5	46.7	46.7	46.7	46.1
77.5°	35.7	36.0	35.7	36.0	34.6	35.7	35.4	34.6	34.9	34.9	36.0
80°	25.0	25.3	24.7	24.7	23.6	24.4	24.4	23.9	23.9	23.9	25.0
82.5°	15.9	15.9	15.7	15.7	14.8	15.7	15.4	14.8	14.8	15.1	15.7
85°	9.1	8.8	8.5	8.8	8.0	8.5	8.5	8.2	8.2	8.2	8.5
87.5°	3.6	3.3	3.3	3.3	3.3	3.3	3.3	3.0	3.0	3.3	3.3
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: P231531

CATALOG NUMBER: S121-DR-LO-27-X-0048-1-U-DD-3-W

**CANDELA DISTRIBUTION (continued):**

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	428.9	428.9	428.9	428.9	428.9	428.9	428.9	428.9	428.9	428.9	428.9
2.5°	412.7	414.1	416.9	419.6	413.0	414.1	415.5	417.4	419.1	419.9	420.7
5°	398.7	400.9	404.0	407.8	402.9	403.1	406.2	408.9	411.4	412.5	413.8
7.5°	386.9	388.6	392.7	395.4	391.3	391.9	395.7	399.8	402.9	404.5	406.4
10°	373.5	375.9	381.4	384.2	380.6	380.9	384.2	389.1	393.5	395.4	397.9
12.5°	352.9	356.7	364.7	368.8	368.5	369.4	372.9	377.9	382.5	385.0	388.3
15°	324.0	330.9	341.1	347.1	351.0	354.0	359.5	366.3	371.3	373.5	376.2
17.5°	298.8	304.8	314.4	321.0	327.9	333.7	341.3	351.2	358.1	361.1	364.4
20°	279.3	282.6	290.3	296.0	303.7	310.3	319.4	332.6	342.2	346.3	350.7
22.5°	265.6	268.3	272.1	276.0	282.0	287.8	296.3	311.4	323.8	329.0	335.6
25°	254.6	256.8	259.2	261.2	265.0	266.4	274.6	289.4	303.4	309.8	318.0
27.5°	243.9	246.6	248.8	250.2	252.4	251.8	257.9	268.6	282.6	289.7	298.0
30°	232.9	234.8	237.8	239.2	241.7	239.2	242.2	250.2	262.5	269.4	277.6
32.5°	224.4	224.4	225.7	227.4	230.9	228.8	229.6	234.5	244.7	250.7	258.7
35°	216.1	215.8	216.1	216.4	219.4	218.9	218.6	221.1	229.0	234.0	240.8
37.5°	207.3	207.1	207.1	206.8	208.4	208.7	208.7	209.3	214.7	217.8	224.4
40°	198.0	197.7	198.0	197.7	198.3	198.0	198.3	198.8	202.1	204.3	208.7
42.5°	188.4	188.7	188.7	188.7	188.4	187.6	187.8	188.1	190.6	191.4	195.0
45°	177.9	178.8	178.8	178.5	178.5	177.9	176.9	177.7	179.3	179.3	182.1
47.5°	167.5	167.8	168.3	168.3	168.3	168.1	166.4	167.0	168.3	167.8	169.7
50°	156.0	156.8	157.4	157.9	158.2	157.6	156.3	156.0	156.0	156.5	157.4
52.5°	144.2	145.3	146.1	146.9	147.5	147.2	146.4	145.3	145.5	145.5	146.1
55°	132.9	133.2	134.6	135.9	136.2	136.2	135.7	134.3	135.1	134.3	135.1
57.5°	121.7	121.9	122.8	122.8	124.4	124.9	124.7	123.6	124.1	123.3	123.9
60°	111.2	111.2	111.2	112.0	112.6	113.4	113.4	112.3	112.6	112.3	112.6
62.5°	100.5	100.2	100.0	100.5	100.5	101.6	101.9	101.1	101.1	101.6	101.1
65°	89.8	89.5	89.2	88.2	88.7	89.5	90.3	89.8	89.5	89.8	89.5
67.5°	79.4	78.8	78.5	77.2	77.4	77.7	78.5	78.3	78.3	78.3	78.0
70°	69.8	67.6	67.3	66.7	65.6	65.9	66.2	66.2	65.9	66.2	65.6
72.5°	58.2	56.8	56.0	56.0	56.0	54.9	55.2	55.2	54.6	54.9	54.4
75°	47.2	46.1	45.9	45.9	45.3	44.5	44.5	43.9	43.9	43.9	43.4
77.5°	36.0	35.4	35.4	35.4	35.2	34.3	34.6	34.1	33.5	33.8	34.1
80°	25.3	25.0	25.0	25.3	25.5	24.7	25.0	24.4	24.2	24.2	23.6
82.5°	15.9	15.9	15.9	16.5	16.8	17.0	16.5	15.9	15.9	15.9	16.2
85°	8.8	8.5	8.8	9.1	9.1	8.8	9.1	9.1	9.1	9.1	8.5
87.5°	3.3	3.0	3.3	3.3	3.3	3.0	3.3	3.3	3.3	3.6	3.6
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: P231531

CATALOG NUMBER: S121-DR-LO-27-X-0048-1-U-DD-3-W

**CANDELA DISTRIBUTION (continued):**

	345°	350°	355°	360°
0°	428.9	428.9	428.9	428.9
2.5°	423.7	428.7	432.2	433.9
5°	417.7	423.7	428.7	432.0
7.5°	411.1	417.7	424.3	428.9
10°	403.4	411.6	418.5	424.8
12.5°	394.6	403.7	411.4	419.3
15°	384.7	394.9	403.7	412.7
17.5°	373.5	385.0	394.6	405.6
20°	360.6	373.7	384.7	396.5
22.5°	346.8	361.4	374.0	387.8
25°	331.5	347.7	362.5	377.6
27.5°	313.6	332.8	349.9	366.1
30°	294.7	315.8	335.6	353.4
32.5°	274.9	298.0	320.5	339.4
35°	256.2	279.6	304.3	323.8
37.5°	238.6	260.6	287.0	307.6
40°	221.6	241.7	268.0	288.9
42.5°	206.2	224.1	249.1	268.0
45°	191.4	207.3	229.3	246.3
47.5°	177.4	192.0	210.4	224.6
50°	164.2	176.9	191.7	203.8
52.5°	151.3	162.3	174.1	183.7
55°	138.7	148.0	156.3	164.5
57.5°	126.6	133.7	139.8	147.5
60°	114.5	120.0	123.9	131.0
62.5°	102.4	106.5	109.0	115.3
65°	90.3	93.4	95.3	100.5
67.5°	78.5	80.7	81.8	86.5
70°	65.9	66.7	68.1	72.8
72.5°	54.6	55.2	56.0	59.0
75°	43.7	44.5	44.8	47.0
77.5°	34.3	34.1	34.9	35.4
80°	23.9	24.2	25.0	25.3
82.5°	15.4	15.7	16.5	16.5
85°	8.5	8.8	9.3	9.1
87.5°	3.3	3.6	3.8	3.8
90°	0.0	0.0	0.0	0.0

(END OF REPORT)