

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: P231532

Luminaire Tested: **S121-DR-LO-30-X-0048-1-U-DD-3-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231532
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-30-X-0048-1-U-DD-3-W
Description: DEFINE 1 LED LINEAR DIRECT RECESSED LED LUMINAIRE WITH ASYMMETRIC LENS.
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1183.2 lumens
Efficiency: N/A
Efficacy: 87.0 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

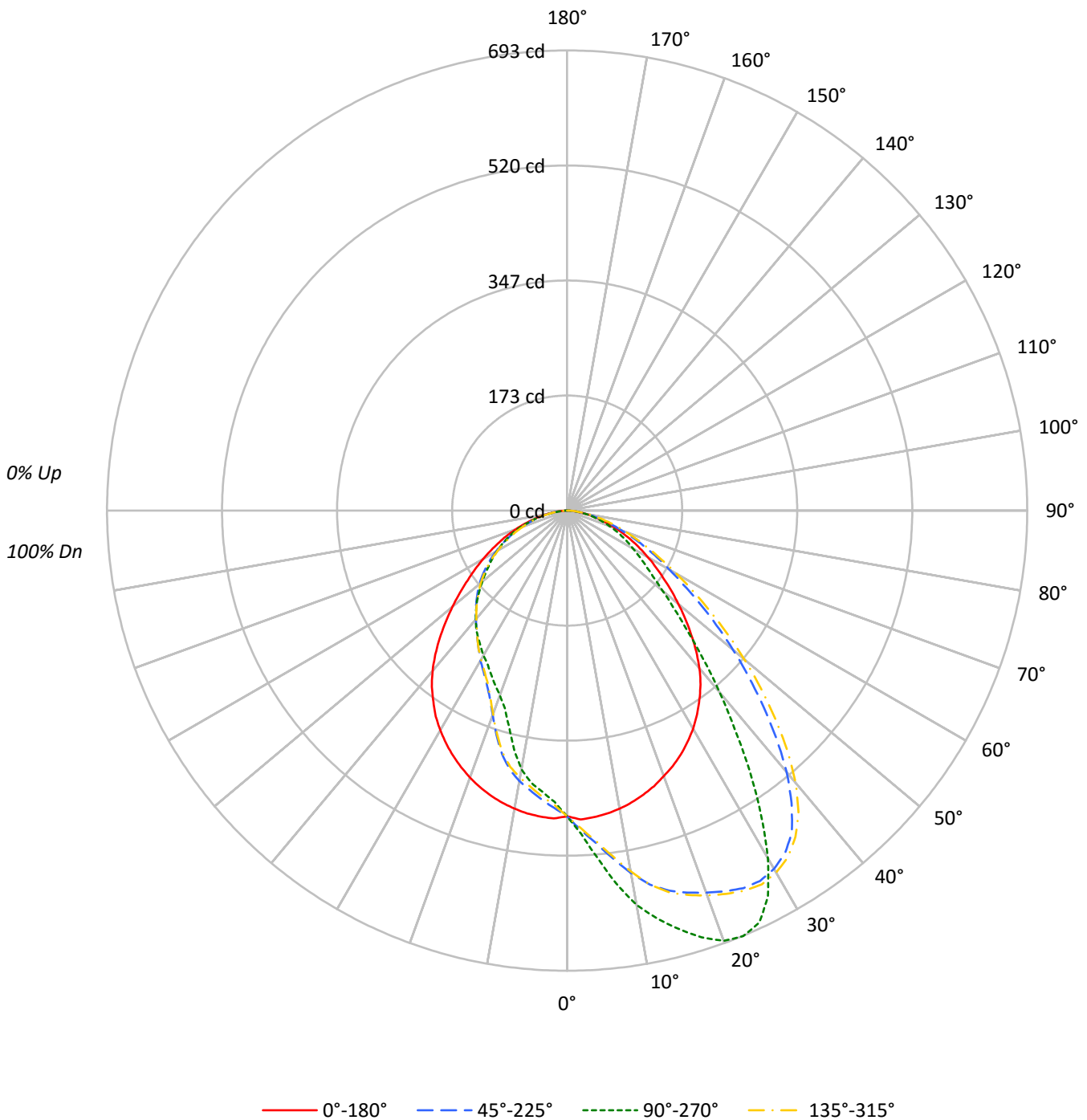
Input Watts (W): 13.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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CATALOG NUMBER: S121-DR-LO-30-X-0048-1-U-DD-3-W

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					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				
2	101	93	87	81	98	91	85	81	88	83	79	84	80	77	81	78	75					73				
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65					63				
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	66	61	56					54				
5	79	66	58	52	76	65	57	51	63	56	51	61	55	50	59	54	50					48				
6	73	60	52	45	71	59	51	45	57	50	45	56	49	44	54	49	44					42				
7	68	55	46	40	66	54	46	40	52	45	40	51	45	40	50	44	39					38				
8	63	50	42	36	62	49	42	36	48	41	36	47	40	36	46	40	36					34				
9	59	46	38	33	58	46	38	33	44	37	33	43	37	32	42	37	32					30				
10	55	43	35	30	54	42	35	30	41	34	30	40	34	30	39	34	29					28				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	12869	12869	12869	12869
5°	13008	14736	12985	11941
10°	12942	17124	12942	11236
15°	12819	18891	12863	9766
20°	12659	20517	12731	8804
25°	12499	21124	12555	8372
30°	12245	19531	12329	8135
35°	11857	16372	11990	7976
40°	11314	13047	11507	7806
45°	10450	10114	10719	7571
50°	9512	8151	9804	7255
55°	8603	7053	8905	6995
60°	7862	6408	8175	6805
65°	7138	5987	7449	6589
70°	6384	5518	6719	6286
75°	5444	5001	5855	5412
80°	4363	4315	5023	4218
85°	3112	3496	3881	2919



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.0	3.8
10°-20°	134.2	11.3
20°-30°	206.0	17.4
30°-40°	234.6	19.8
40°-50°	213.2	18.0
50°-60°	166.3	14.1
60°-70°	112.6	9.5
70°-80°	57.7	4.9
80°-90°	13.6	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°	385.1	32.5
0°-40°	619.7	52.4
0°-60°	999.3	84.5
0°-90°	1183.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1183.2	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	460	460	460	460	460	
5°	464	525	463	426	464	44
15°	443	653	444	337	443	125
25°	405	685	407	271	405	186
35°	347	480	351	234	347	217
45°	264	256	271	192	264	204
55°	176	145	183	144	176	159
65°	108	90	113	100	108	107
75°	50	46	54	50	50	54
85°	10	11	12	9	10	12
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°	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3
2.5°	465.6	463.5	464.7	468.0	471.5	472.7	473.3	474.7	476.5	479.4	481.8
5°	463.5	463.8	467.4	473.0	478.6	480.9	483.0	487.1	491.8	497.7	503.0
7.5°	460.3	462.7	469.1	477.1	485.6	489.8	493.0	501.3	509.8	519.2	528.4
10°	455.9	460.6	469.4	480.3	493.0	498.9	504.5	516.9	529.3	542.2	554.3
12.5°	450.0	457.1	468.5	483.0	500.1	508.0	515.7	531.9	547.5	562.8	577.0
15°	442.9	452.3	466.8	485.0	506.0	515.7	525.1	544.0	561.4	577.6	592.6
17.5°	435.2	446.7	464.1	486.2	510.4	521.0	530.7	551.1	568.7	586.1	603.2
20°	425.5	440.6	460.6	485.3	511.0	521.9	532.5	553.1	572.0	592.3	612.4
22.5°	416.1	431.7	455.6	481.5	506.9	518.6	529.5	551.9	573.7	597.3	620.6
25°	405.2	422.9	448.2	474.1	499.5	511.3	523.7	549.0	575.5	602.0	627.4
27.5°	392.8	411.7	437.6	462.9	489.2	502.7	516.9	546.3	576.4	604.4	628.9
30°	379.3	399.9	424.0	448.8	478.3	493.6	509.8	542.8	575.2	600.6	623.0
32.5°	364.2	384.9	407.3	435.0	466.5	483.9	502.7	536.3	568.7	591.1	611.2
35°	347.4	366.0	389.0	419.3	454.4	473.6	492.1	526.6	557.5	576.4	590.2
37.5°	330.0	348.6	370.1	403.1	440.8	461.8	479.2	512.2	541.0	554.6	554.9
40°	310.0	327.1	350.1	386.3	425.8	445.3	464.4	494.8	519.5	524.8	514.5
42.5°	287.6	305.6	330.3	368.9	408.1	428.5	445.0	474.1	492.7	489.2	466.8
45°	264.3	284.1	310.3	349.8	387.5	406.1	422.9	448.8	460.3	449.1	418.2
47.5°	241.1	262.3	289.7	328.9	364.2	382.2	397.8	419.3	424.0	405.8	371.0
50°	218.7	240.2	268.5	306.2	338.9	356.6	369.8	386.3	385.2	361.6	326.2
52.5°	197.1	219.2	249.0	281.7	312.4	328.0	340.4	351.0	345.7	318.0	283.2
55°	176.5	198.0	224.3	253.1	285.3	297.6	308.8	314.7	305.9	277.9	243.4
57.5°	158.2	177.4	203.9	229.6	257.0	267.3	276.7	278.5	266.7	236.3	207.8
60°	140.6	157.7	180.9	201.0	227.2	236.9	243.7	242.8	230.1	204.8	177.4
62.5°	123.8	138.5	158.2	178.0	198.0	205.7	211.6	211.6	196.0	173.9	152.6
65°	107.9	120.2	135.8	150.3	170.0	175.9	180.6	176.5	165.3	144.4	128.8
67.5°	92.8	102.5	114.6	126.7	143.5	147.9	150.9	149.7	137.6	120.2	107.6
70°	78.1	85.8	95.2	104.6	117.9	121.1	123.8	122.6	113.2	100.5	87.2
72.5°	63.4	69.0	76.6	84.6	94.3	96.7	99.0	97.8	88.7	80.4	70.7
75°	50.4	54.2	59.5	65.7	72.8	75.1	76.6	76.0	69.0	62.2	55.7
77.5°	38.0	40.7	44.8	49.2	53.9	54.8	56.3	55.7	51.3	46.6	42.1
80°	27.1	28.6	31.5	34.2	37.4	38.3	38.9	38.9	35.7	32.7	30.4
82.5°	17.7	18.6	20.3	21.8	23.9	24.2	24.8	24.8	22.7	21.5	20.3
85°	9.7	10.3	11.5	12.1	13.0	12.7	13.3	13.6	12.7	12.4	11.8
87.5°	4.1	4.1	4.4	5.0	4.7	4.7	5.0	5.3	5.0	4.7	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



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3
2.5°	483.6	480.9	484.5	487.7	488.6	490.1	487.1	485.3	484.8	487.4	485.6
5°	507.1	506.9	512.7	517.8	519.2	521.9	520.4	520.1	520.7	525.1	523.1
7.5°	535.4	538.1	546.9	554.3	556.7	560.5	560.2	560.8	562.0	566.7	564.9
10°	567.3	569.3	579.9	589.4	592.3	596.1	593.8	597.9	599.4	603.2	600.9
12.5°	590.2	593.8	605.0	615.3	618.0	620.6	620.3	623.5	626.2	629.7	628.3
15°	605.6	610.0	623.3	634.7	638.3	640.6	640.9	645.1	648.0	652.7	654.5
17.5°	617.4	624.4	639.5	652.7	656.6	659.2	661.0	665.7	669.5	673.9	675.4
20°	628.3	638.3	655.4	669.2	672.8	674.8	677.5	681.3	685.7	689.6	690.4
22.5°	637.7	649.5	666.0	677.8	680.4	681.3	683.1	685.7	690.4	693.4	694.9
25°	643.0	652.7	667.5	677.5	679.5	678.1	679.2	679.2	683.1	684.8	688.1
27.5°	640.9	649.2	660.7	666.0	665.1	661.0	655.7	651.2	654.8	654.8	659.2
30°	631.2	635.0	638.6	634.7	626.5	621.8	612.4	603.2	606.2	605.0	609.4
32.5°	610.9	605.3	599.7	587.6	575.8	568.1	554.0	549.0	544.3	543.7	547.5
35°	578.8	563.1	548.4	530.1	516.9	507.4	490.6	478.0	479.2	479.7	482.7
37.5°	536.0	512.5	491.5	469.7	457.6	445.6	429.1	422.3	417.6	414.3	419.9
40°	486.8	457.6	433.5	411.1	400.2	386.9	371.6	364.8	360.1	357.5	361.3
42.5°	436.1	404.9	379.6	356.6	345.1	333.6	318.8	312.4	307.1	303.2	307.6
45°	386.9	354.5	328.3	305.6	294.1	285.0	270.5	264.9	259.9	255.8	260.5
47.5°	338.9	311.8	281.1	259.3	249.6	240.8	229.3	224.5	220.7	217.8	220.7
50°	293.8	267.3	238.7	220.7	213.1	205.1	196.0	192.4	189.5	187.4	189.2
52.5°	252.5	227.8	203.6	186.5	182.4	176.5	169.4	166.8	163.3	162.7	164.7
55°	215.4	194.2	174.5	161.8	157.7	153.2	147.9	146.2	144.1	144.7	144.4
57.5°	183.9	166.2	150.0	141.2	137.3	133.8	130.0	129.1	128.2	128.5	128.2
60°	157.1	142.6	130.0	122.6	120.2	117.6	114.9	113.5	114.0	114.6	115.5
62.5°	133.5	122.3	112.3	106.7	105.2	103.4	102.0	101.1	101.7	102.3	103.1
65°	113.2	104.3	97.0	93.1	91.6	90.8	89.9	90.5	89.9	90.5	91.4
67.5°	95.2	88.4	82.8	80.4	79.6	78.7	78.1	79.0	78.7	79.0	79.6
70°	79.0	73.4	69.5	67.8	67.2	66.6	66.3	66.3	66.9	67.5	68.1
72.5°	63.7	60.4	58.1	56.6	56.0	55.7	55.4	56.0	56.0	56.6	57.2
75°	50.4	48.3	46.3	46.0	45.7	45.4	45.4	46.0	46.0	46.3	46.6
77.5°	39.5	37.7	36.0	36.0	35.7	36.2	35.7	36.2	35.7	36.2	36.5
80°	29.2	27.7	27.4	26.5	26.2	27.1	26.2	26.8	26.2	26.8	27.1
82.5°	19.7	18.9	18.6	18.0	18.0	18.6	18.0	18.3	18.0	18.3	18.6
85°	11.5	11.2	10.9	10.9	10.6	11.2	10.6	10.9	10.6	10.9	11.2
87.5°	5.0	5.0	4.7	5.0	4.4	5.0	4.7	5.0	5.3	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



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3
2.5°	487.7	484.8	483.9	481.5	482.1	485.0	484.2	485.9	478.9	473.3	469.4
5°	523.9	518.9	516.3	512.2	511.9	512.7	509.5	509.5	499.5	491.2	484.2
7.5°	565.5	558.7	554.6	549.0	548.1	546.9	541.0	538.1	525.1	512.5	501.6
10°	600.9	594.1	589.7	584.4	583.2	581.4	573.5	567.9	551.6	535.4	520.4
12.5°	628.3	621.2	616.2	611.5	609.7	607.9	600.6	591.4	577.0	557.0	539.3
15°	653.0	645.4	639.5	633.9	630.9	627.4	618.8	610.3	595.3	573.7	554.6
17.5°	673.6	665.4	658.3	652.7	648.9	644.2	633.9	622.1	607.0	584.4	564.6
20°	688.7	680.4	672.8	667.8	664.5	657.7	646.8	633.3	616.8	592.0	569.6
22.5°	693.7	686.0	679.2	675.4	672.2	666.9	657.1	643.9	624.7	597.6	572.3
25°	687.5	683.1	678.4	676.3	673.9	669.8	662.7	650.4	631.8	602.6	573.7
27.5°	660.4	661.6	662.2	665.4	664.8	665.7	661.6	650.7	634.5	606.2	574.6
30°	613.8	620.6	626.8	634.5	635.9	646.2	649.5	642.1	629.4	605.6	574.3
32.5°	559.6	564.3	574.9	582.9	591.4	610.0	622.1	626.2	618.8	599.1	570.2
35°	494.5	501.6	515.4	526.9	536.6	561.7	581.7	598.2	599.7	587.6	560.8
37.5°	431.7	439.7	453.8	468.0	475.6	506.0	532.2	559.3	572.3	569.6	548.1
40°	373.1	381.6	395.5	410.2	416.4	447.9	476.8	512.2	535.4	545.5	530.4
42.5°	318.8	327.7	341.2	354.2	367.2	392.5	421.7	461.2	490.9	511.6	506.9
45°	269.9	278.2	291.4	302.9	311.5	340.7	369.2	404.9	442.9	468.3	476.2
47.5°	228.7	235.7	247.5	257.8	269.3	292.0	320.6	356.0	394.9	429.6	441.1
50°	195.7	201.6	211.6	219.8	228.4	248.7	274.9	309.4	348.0	385.2	402.2
52.5°	169.4	174.2	182.4	188.0	195.4	211.9	234.9	266.7	302.9	340.9	361.9
55°	148.5	152.1	159.4	162.4	168.3	181.5	200.4	229.3	260.5	297.6	321.2
57.5°	131.1	133.5	139.7	141.7	146.2	156.5	171.5	196.0	223.1	257.3	285.5
60°	116.7	118.5	122.3	124.1	127.6	135.6	147.3	166.5	189.8	220.4	243.7
62.5°	103.4	104.6	107.6	108.7	111.4	117.3	126.7	142.0	160.9	186.8	211.9
65°	91.6	92.2	94.6	94.6	97.0	101.4	108.4	121.1	135.6	157.7	179.2
67.5°	79.9	80.2	81.0	82.2	84.0	87.2	92.2	102.3	113.7	131.7	149.7
70°	68.1	68.4	69.5	69.5	70.7	73.1	77.8	85.2	94.0	108.4	123.2
72.5°	57.2	57.8	58.3	58.1	59.2	60.7	63.9	68.7	77.5	87.5	99.3
75°	46.9	46.6	47.7	47.4	48.3	49.2	51.9	55.1	61.0	68.1	77.5
77.5°	36.8	36.5	37.4	38.0	37.7	38.6	40.4	42.1	46.3	51.3	57.8
80°	27.4	27.7	27.7	28.3	28.3	28.6	29.8	30.6	33.6	36.5	41.0
82.5°	18.6	19.2	19.2	19.7	19.4	19.7	20.3	20.9	22.7	24.2	26.8
85°	11.2	11.2	11.5	11.8	11.8	11.8	12.4	12.4	13.3	13.9	15.3
87.5°	5.3	5.0	5.3	5.6	5.3	5.6	5.3	5.6	6.2	5.9	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



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CATALOG NUMBER: S121-DR-LO-30-X-0048-1-U-DD-3-W

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3
2.5°	467.1	468.0	467.4	466.5	466.5	469.1	468.5	464.1	459.7	454.7	452.9
5°	479.4	478.0	475.9	473.9	471.5	471.8	469.1	462.7	456.5	450.0	447.3
7.5°	493.0	488.0	484.8	481.2	475.6	473.9	468.5	460.0	452.3	444.7	440.8
10°	508.0	498.6	493.0	487.7	479.2	474.1	466.5	455.9	447.0	437.9	433.5
12.5°	522.8	509.2	501.8	494.2	481.5	473.9	463.5	450.6	440.3	430.2	424.6
15°	535.4	519.5	510.1	500.7	483.6	471.8	458.8	444.4	431.7	421.4	414.6
17.5°	544.3	526.3	516.6	505.7	484.8	469.1	453.2	436.7	422.9	411.1	403.1
20°	547.8	529.0	518.9	507.4	484.2	464.7	446.7	427.9	413.1	401.1	390.5
22.5°	547.5	527.5	516.9	505.1	480.6	459.7	438.8	417.9	401.9	388.1	376.0
25°	544.9	522.5	511.0	498.9	474.4	452.9	429.9	407.0	389.6	373.7	358.9
27.5°	542.2	515.4	502.7	490.4	465.6	443.8	419.3	394.9	375.7	357.5	340.4
30°	539.0	507.7	493.3	479.2	452.3	431.1	407.3	381.9	360.7	340.1	319.4
32.5°	534.3	500.1	484.2	467.4	437.9	416.4	393.4	368.1	343.9	320.3	298.5
35°	527.5	491.2	474.4	455.9	421.7	399.0	377.5	351.3	326.5	300.3	278.5
37.5°	516.6	480.3	462.4	443.2	404.9	379.8	358.9	334.8	307.4	280.2	259.3
40°	502.1	466.2	448.5	428.2	387.5	359.5	338.6	315.3	287.0	260.5	241.9
42.5°	484.8	448.5	431.1	412.0	369.8	338.9	317.1	293.8	266.4	241.9	225.4
45°	461.8	427.6	409.6	392.5	351.0	317.7	294.7	271.1	246.6	225.1	209.8
47.5°	434.7	404.6	386.6	370.1	330.3	296.5	272.0	248.1	226.9	208.6	195.1
50°	403.1	379.3	361.9	344.5	308.2	274.6	249.3	225.4	207.2	193.0	180.9
52.5°	369.2	351.9	335.1	318.8	284.7	252.5	225.4	203.6	188.9	177.7	167.7
55°	333.6	322.7	309.1	291.4	259.6	229.6	204.2	182.7	170.9	162.7	154.4
57.5°	297.0	291.1	279.7	263.4	233.7	206.6	183.3	163.8	153.8	147.6	141.4
60°	261.1	257.6	246.6	235.2	207.8	183.9	162.1	146.2	137.9	133.2	128.2
62.5°	225.4	225.1	218.4	206.3	182.4	161.8	142.3	128.8	122.3	119.1	114.9
65°	191.8	193.9	187.4	178.0	157.7	139.7	123.5	112.6	107.6	104.9	102.0
67.5°	160.6	163.5	158.5	150.6	134.1	118.8	106.1	97.2	93.1	91.1	88.7
70°	132.3	134.7	131.4	124.7	111.4	99.3	89.0	82.2	79.3	77.5	76.3
72.5°	107.0	108.1	105.5	100.5	90.5	81.3	72.5	67.5	65.1	63.7	62.2
75°	82.2	84.9	82.5	78.4	70.4	62.8	57.8	54.2	52.2	51.3	50.4
77.5°	61.0	62.8	61.3	58.3	53.3	47.7	44.2	42.7	41.6	39.5	38.9
80°	42.7	44.2	43.3	41.3	38.0	35.4	31.8	31.2	30.1	28.6	28.3
82.5°	28.9	28.6	28.3	26.5	24.8	23.3	20.9	20.9	19.2	18.9	18.6
85°	15.3	15.9	15.6	14.7	14.1	12.7	12.1	12.1	11.5	10.6	10.6
87.5°	6.2	6.5	6.5	5.9	5.9	5.3	5.6	5.3	5.0	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: P231532

CATALOG NUMBER: S121-DR-LO-30-X-0048-1-U-DD-3-W

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3
2.5°	451.7	452.0	451.2	449.4	448.5	445.9	448.2	445.3	441.4	444.4	443.5
5°	445.0	444.7	442.9	440.6	438.8	435.2	437.0	433.5	429.1	430.8	429.6
7.5°	437.3	436.7	434.4	430.8	427.9	423.8	425.2	421.1	416.4	418.2	417.0
10°	429.1	427.6	424.6	420.2	417.0	412.6	413.7	409.0	403.7	404.3	401.9
12.5°	419.0	417.0	413.7	409.0	405.2	399.6	399.3	392.5	384.9	383.4	378.7
15°	407.8	405.5	402.2	396.1	390.5	381.9	379.3	369.2	358.6	355.1	348.9
17.5°	396.9	392.8	389.0	379.8	371.0	358.9	353.9	341.8	330.9	326.8	321.2
20°	381.3	377.5	371.9	359.5	347.7	333.6	327.4	314.1	306.8	304.7	301.5
22.5°	363.9	358.6	352.4	335.9	323.0	309.4	304.4	294.4	290.0	289.4	287.6
25°	343.9	337.4	327.7	312.1	299.7	289.1	286.7	279.7	277.3	277.6	276.1
27.5°	324.7	315.3	306.5	290.0	280.2	273.5	272.9	267.3	266.4	266.1	264.0
30°	300.9	293.5	284.7	270.8	264.0	260.5	260.8	255.8	254.6	254.0	252.8
32.5°	280.2	273.8	265.5	254.6	250.8	249.6	247.8	243.7	244.3	243.7	243.7
35°	261.1	254.0	248.7	240.8	239.0	238.4	235.7	232.8	233.4	235.2	234.6
37.5°	243.7	238.4	233.4	228.4	227.2	226.9	224.0	223.1	225.4	225.4	224.8
40°	227.8	223.4	219.2	216.6	215.7	215.1	213.4	213.4	215.7	215.4	215.1
42.5°	213.4	209.2	206.6	205.1	204.2	204.2	203.3	204.8	206.0	205.7	204.2
45°	199.5	196.3	194.8	193.3	192.7	193.6	193.3	194.2	195.7	194.8	193.0
47.5°	185.9	183.6	182.7	181.5	182.4	182.7	183.0	183.6	184.5	183.0	181.2
50°	173.3	171.5	170.9	169.4	171.8	171.5	172.4	173.3	172.7	170.6	169.1
52.5°	160.9	159.7	159.4	159.4	160.6	160.6	161.2	161.8	160.3	158.2	156.8
55°	149.1	147.9	147.6	146.8	148.5	149.1	149.1	149.1	147.3	145.0	143.8
57.5°	137.3	135.8	135.6	136.4	136.4	136.4	136.7	136.4	134.7	132.9	132.0
60°	124.9	123.8	123.5	124.4	124.1	125.2	124.1	123.5	122.0	121.1	121.4
62.5°	112.6	111.1	111.1	112.0	112.0	112.6	111.4	110.5	109.6	109.0	109.9
65°	99.0	98.4	98.4	99.6	99.6	99.0	98.1	98.1	97.8	97.5	97.5
67.5°	86.3	86.0	86.3	87.5	87.2	86.3	85.8	86.0	86.0	86.3	86.3
70°	75.1	73.1	73.1	75.1	75.1	75.1	73.1	73.7	73.7	74.8	76.0
72.5°	62.2	61.0	61.0	62.2	61.3	62.5	61.3	62.2	62.5	63.1	63.7
75°	49.2	50.4	49.5	50.7	50.1	50.7	49.8	50.7	51.0	50.7	50.4
77.5°	38.9	39.2	38.3	39.5	39.2	39.5	38.9	39.5	39.5	38.9	39.5
80°	28.3	28.6	28.0	29.2	28.6	28.9	28.3	28.9	28.6	27.4	27.7
82.5°	18.9	19.2	18.6	19.7	18.9	19.4	18.6	18.9	18.6	17.4	17.7
85°	10.9	11.2	10.6	11.5	10.9	11.2	10.3	10.6	10.3	9.7	9.7
87.5°	4.4	4.7	4.1	4.7	4.4	4.4	3.8	4.1	4.1	3.5	3.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P231532

CATALOG NUMBER: S121-DR-LO-30-X-0048-1-U-DD-3-W

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3
2.5°	443.5	441.4	440.3	439.1	437.9	438.8	439.4	439.7	441.4	440.8	441.1
5°	429.1	427.0	425.2	424.0	423.8	425.5	426.4	426.1	427.0	425.8	426.4
7.5°	416.7	414.6	412.9	411.1	411.4	413.4	414.6	414.6	415.8	414.0	414.0
10°	401.9	399.3	396.3	394.3	394.0	395.8	396.1	395.5	397.8	397.8	399.0
12.5°	378.4	374.5	372.5	367.2	366.9	368.6	369.5	371.3	372.2	373.4	375.7
15°	348.0	344.5	341.5	335.9	335.6	337.4	336.2	340.9	342.7	344.5	346.8
17.5°	320.3	318.0	315.0	310.9	310.3	312.1	311.8	315.0	316.2	317.4	319.4
20°	300.9	297.9	297.3	294.7	294.7	295.9	295.6	297.0	297.6	297.6	298.8
22.5°	287.3	285.5	284.7	282.9	282.9	283.8	284.1	284.7	284.7	283.8	284.4
25°	275.8	274.1	272.6	270.2	270.5	271.4	271.7	272.3	272.6	272.3	272.9
27.5°	263.4	261.7	260.5	259.0	259.3	260.2	259.9	260.5	260.5	260.5	261.1
30°	252.5	251.4	251.4	250.5	251.4	252.0	251.7	251.7	251.1	249.9	249.9
32.5°	243.1	242.8	242.8	242.5	242.5	242.5	242.8	243.1	242.5	241.6	241.3
35°	234.3	233.7	233.7	232.8	233.7	233.7	233.7	234.0	233.4	232.8	231.9
37.5°	225.1	225.1	224.5	224.5	224.3	224.8	224.5	224.5	224.3	223.4	222.8
40°	215.4	215.1	213.9	213.6	213.4	213.9	213.4	213.9	213.9	213.6	213.4
42.5°	204.2	203.9	203.3	202.7	202.4	203.0	202.4	202.7	203.0	203.0	202.4
45°	192.7	193.0	191.8	190.4	191.5	191.5	191.2	191.5	191.5	191.8	191.2
47.5°	181.2	181.2	180.1	179.5	179.2	179.2	178.6	179.2	179.8	180.3	179.8
50°	168.9	168.6	167.1	165.6	166.5	166.8	165.9	166.5	166.8	167.7	167.7
52.5°	156.2	156.2	155.0	154.1	155.3	155.0	154.4	154.4	154.7	154.4	154.7
55°	143.8	144.4	143.5	142.9	143.2	143.5	143.2	143.2	143.2	142.9	142.6
57.5°	132.3	132.9	132.0	131.7	132.3	132.6	131.7	131.7	131.7	131.7	131.1
60°	121.1	121.4	121.1	120.5	121.4	121.7	121.1	120.8	120.5	119.9	119.9
62.5°	109.6	109.9	110.2	109.9	110.5	110.8	110.2	109.9	109.6	108.4	108.1
65°	98.1	98.7	99.3	99.3	99.9	99.6	99.3	99.0	98.4	97.5	96.7
67.5°	86.6	87.5	88.1	88.1	88.7	88.4	88.1	87.8	87.2	86.3	85.5
70°	75.4	76.3	76.3	76.6	76.6	76.9	76.0	76.0	76.0	74.8	73.4
72.5°	62.8	63.7	63.4	63.7	63.7	63.1	63.1	63.1	63.4	62.2	61.6
75°	50.7	51.3	51.0	51.3	50.4	50.1	51.0	50.1	50.1	50.1	49.5
77.5°	38.3	38.6	38.3	38.6	37.1	38.3	38.0	37.1	37.4	37.4	38.6
80°	26.8	27.1	26.5	26.5	25.3	26.2	26.2	25.6	25.6	25.6	26.8
82.5°	17.1	17.1	16.8	16.8	15.9	16.8	16.5	15.9	15.9	16.2	16.8
85°	9.7	9.4	9.1	9.4	8.5	9.1	9.1	8.8	8.8	8.8	9.1
87.5°	3.8	3.5	3.5	3.5	3.5	3.5	3.5	3.2	3.2	3.5	3.5
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: P231532

CATALOG NUMBER: S121-DR-LO-30-X-0048-1-U-DD-3-W

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3
2.5°	442.9	444.4	447.3	450.3	443.2	444.4	445.9	447.9	449.7	450.6	451.5
5°	427.9	430.2	433.5	437.6	432.3	432.6	435.8	438.8	441.4	442.6	444.1
7.5°	415.2	417.0	421.4	424.3	419.9	420.5	424.6	429.1	432.3	434.1	436.1
10°	400.8	403.4	409.3	412.3	408.4	408.7	412.3	417.6	422.3	424.3	427.0
12.5°	378.7	382.8	391.3	395.8	395.5	396.3	400.2	405.5	410.5	413.1	416.7
15°	347.7	355.1	366.0	372.5	376.6	379.8	385.7	393.1	398.4	400.8	403.7
17.5°	320.6	327.1	337.4	344.5	351.9	358.0	366.3	376.9	384.3	387.5	391.0
20°	299.7	303.2	311.5	317.7	325.9	333.0	342.7	356.9	367.2	371.6	376.3
22.5°	285.0	287.9	292.0	296.2	302.6	308.8	318.0	334.2	347.4	353.0	360.1
25°	273.2	275.5	278.2	280.2	284.4	285.8	294.7	310.6	325.6	332.4	341.2
27.5°	261.7	264.6	267.0	268.5	270.8	270.2	276.7	288.2	303.2	310.9	319.7
30°	249.9	252.0	255.2	256.7	259.3	256.7	259.9	268.5	281.7	289.1	297.9
32.5°	240.8	240.8	242.2	244.0	247.8	245.5	246.4	251.7	262.6	269.0	277.6
35°	231.9	231.6	231.9	232.2	235.5	234.9	234.6	237.2	245.8	251.1	258.4
37.5°	222.5	222.2	222.2	221.9	223.7	224.0	224.0	224.5	230.4	233.7	240.8
40°	212.5	212.2	212.5	212.2	212.8	212.5	212.8	213.4	216.9	219.2	224.0
42.5°	202.2	202.4	202.4	202.4	202.2	201.3	201.6	201.9	204.5	205.4	209.2
45°	191.0	191.8	191.8	191.5	191.5	191.0	189.8	190.7	192.4	192.4	195.4
47.5°	179.8	180.1	180.6	180.6	180.6	180.3	178.6	179.2	180.6	180.1	182.1
50°	167.4	168.3	168.9	169.4	169.7	169.1	167.7	167.4	167.4	168.0	168.9
52.5°	154.7	155.9	156.8	157.7	158.2	158.0	157.1	155.9	156.2	156.2	156.8
55°	142.6	142.9	144.4	145.9	146.2	146.2	145.6	144.1	145.0	144.1	145.0
57.5°	130.5	130.8	131.7	131.7	133.5	134.1	133.8	132.6	133.2	132.3	132.9
60°	119.3	119.3	119.3	120.2	120.8	121.7	121.7	120.5	120.8	120.5	120.8
62.5°	107.9	107.6	107.3	107.9	107.9	109.0	109.3	108.4	108.4	109.0	108.4
65°	96.4	96.1	95.8	94.6	95.2	96.1	97.0	96.4	96.1	96.4	96.1
67.5°	85.2	84.6	84.3	82.8	83.1	83.4	84.3	84.0	84.0	84.0	83.7
70°	74.8	72.5	72.2	71.6	70.4	70.7	71.0	71.0	70.7	71.0	70.4
72.5°	62.5	61.0	60.1	60.1	60.1	58.9	59.2	59.2	58.6	58.9	58.3
75°	50.7	49.5	49.2	49.2	48.6	47.7	47.7	47.1	47.1	47.1	46.6
77.5°	38.6	38.0	38.0	38.0	37.7	36.8	37.1	36.5	36.0	36.2	36.5
80°	27.1	26.8	26.8	27.1	27.4	26.5	26.8	26.2	25.9	25.9	25.3
82.5°	17.1	17.1	17.1	17.7	18.0	18.3	17.7	17.1	17.1	17.1	17.4
85°	9.4	9.1	9.4	9.7	9.7	9.4	9.7	9.7	9.7	9.7	9.1
87.5°	3.5	3.2	3.5	3.5	3.5	3.2	3.5	3.5	3.5	3.8	3.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P231532

CATALOG NUMBER: S121-DR-LO-30-X-0048-1-U-DD-3-W

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	460.3	460.3	460.3	460.3
2.5°	454.7	460.0	463.8	465.6
5°	448.2	454.7	460.0	463.5
7.5°	441.1	448.2	455.3	460.3
10°	432.9	441.7	449.1	455.9
12.5°	423.5	433.2	441.4	450.0
15°	412.9	423.8	433.2	442.9
17.5°	400.8	413.1	423.5	435.2
20°	386.9	401.1	412.9	425.5
22.5°	372.2	387.8	401.4	416.1
25°	355.7	373.1	389.0	405.2
27.5°	336.5	357.2	375.4	392.8
30°	316.2	338.9	360.1	379.3
32.5°	295.0	319.7	343.9	364.2
35°	274.9	300.0	326.5	347.4
37.5°	256.1	279.7	307.9	330.0
40°	237.8	259.3	287.6	310.0
42.5°	221.3	240.5	267.3	287.6
45°	205.4	222.5	246.1	264.3
47.5°	190.4	206.0	225.7	241.1
50°	176.2	189.8	205.7	218.7
52.5°	162.4	174.2	186.8	197.1
55°	148.8	158.8	167.7	176.5
57.5°	135.8	143.5	150.0	158.2
60°	122.9	128.8	132.9	140.6
62.5°	109.9	114.3	117.0	123.8
65°	97.0	100.2	102.3	107.9
67.5°	84.3	86.6	87.8	92.8
70°	70.7	71.6	73.1	78.1
72.5°	58.6	59.2	60.1	63.4
75°	46.9	47.7	48.0	50.4
77.5°	36.8	36.5	37.4	38.0
80°	25.6	25.9	26.8	27.1
82.5°	16.5	16.8	17.7	17.7
85°	9.1	9.4	10.0	9.7
87.5°	3.5	3.8	4.1	4.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)