

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: LUMARK

Report Number: P146579

Luminaire Tested: **LDRL-T3-E01-E-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P146579  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33695)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: LDRL-T3-E01-E-7030  
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE  
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 3  
Light Source: (21) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2727.1 lumens  
Efficiency: N/A  
Efficacy: 110.4 lumens/watt  
Luminous Opening: Rectangular (W 0.17' x L: 1' x H: 0')  
IES Classification: Type III - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G1

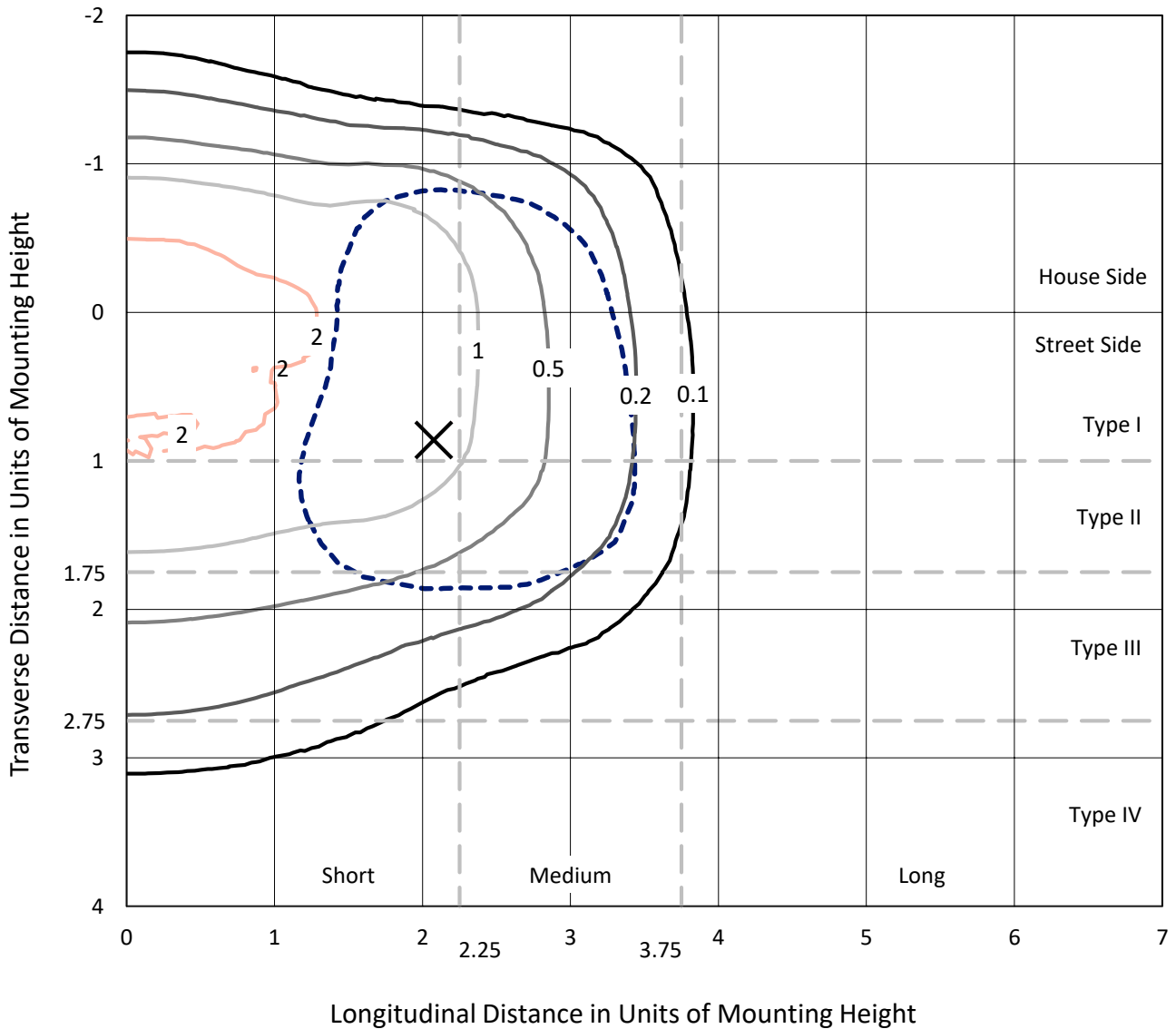
Input Watts (W): 24.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P146579  
 CATALOG NUMBER: LDRL-T3-E01-E-7030

### Iso-Footcandle Lines of Horizontal Illumination

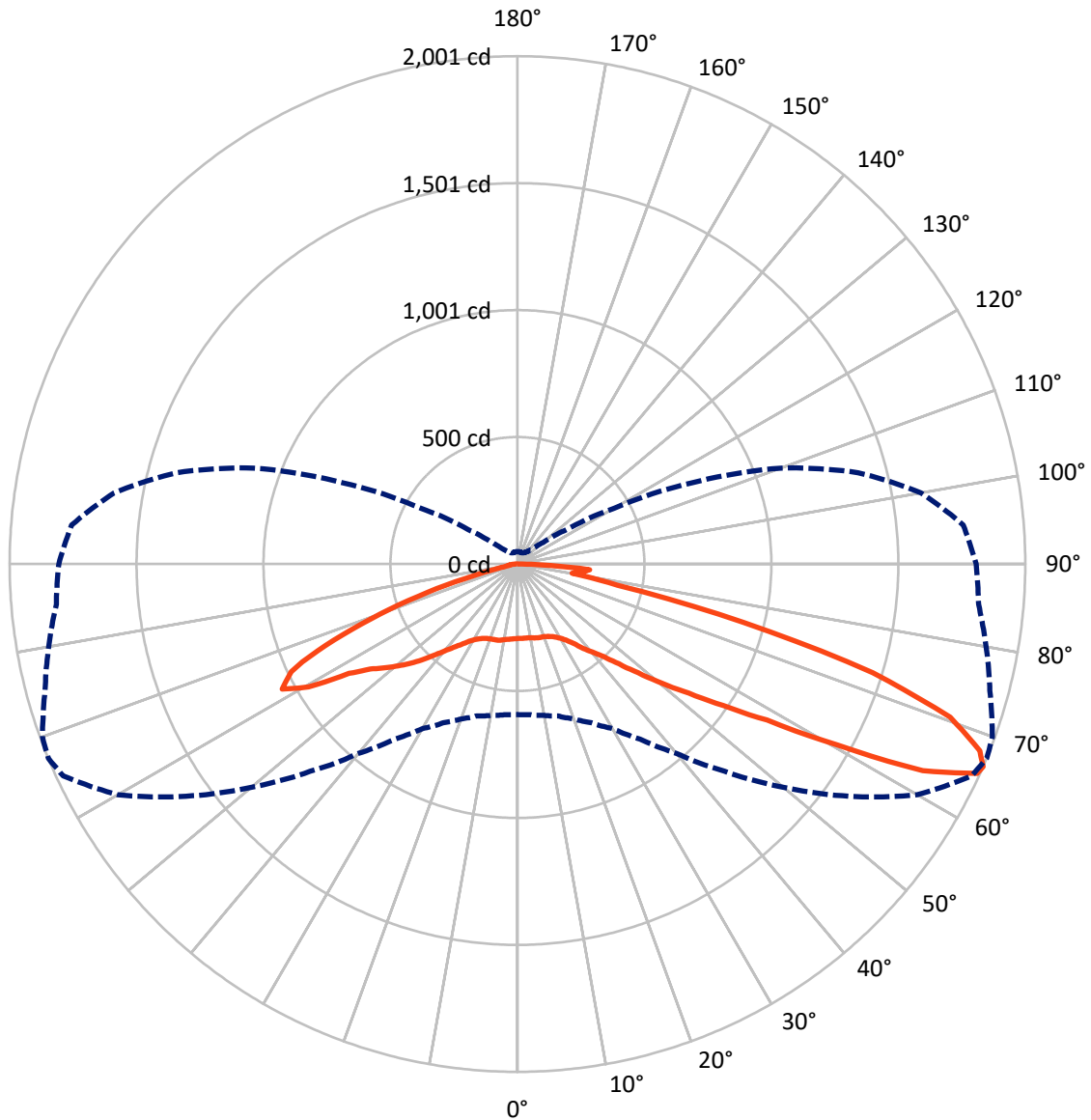
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.9 fc  
 Type III - Short - Semi-Cutoff

REPORT NUMBER: P146579  
CATALOG NUMBER: LDRL-T3-E01-E-7030

### Luminous Intensity Polar Plot



— Vertical Plane Through 67.5-Deg Lateral    - - - Horizontal Cone Through 66-Deg Vertical

REPORT NUMBER: P146579

CATALOG NUMBER: LDRL-T3-E01-E-7030

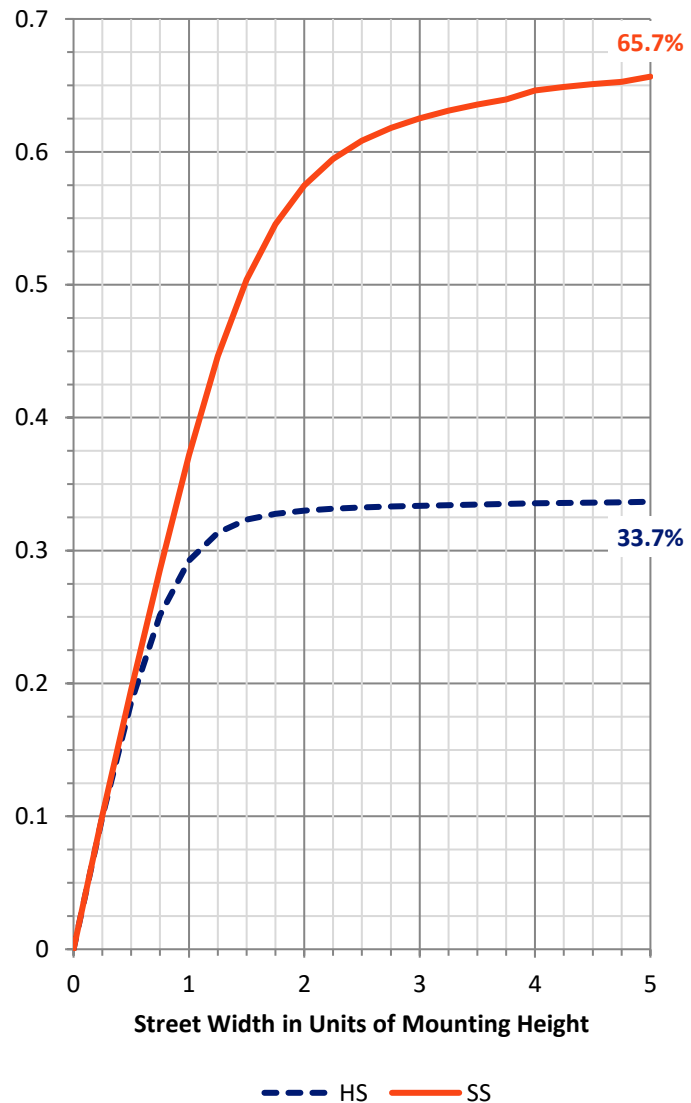
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	926.5	0.0	926.5
	% Fixture	34.0	0.0	34.0
<b>Street Side</b>	Lumens	1800.6	0.0	1800.6
	% Fixture	66.0	0.0	66.0
<b>Total</b>	Lumens	2727.1	0.0	2727.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	28.2	1.0
10°-20°	83.6	3.1
20°-30°	143.6	5.3
30°-40°	231.0	8.5
40°-50°	380.8	14.0
50°-60°	596.9	21.9
60°-70°	826.1	30.3
70°-80°	373.8	13.7
80°-90°	63.1	2.3
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°-90°	2727.1	100.0
0°-180°	2727.1	100.0



REPORT NUMBER: P146579

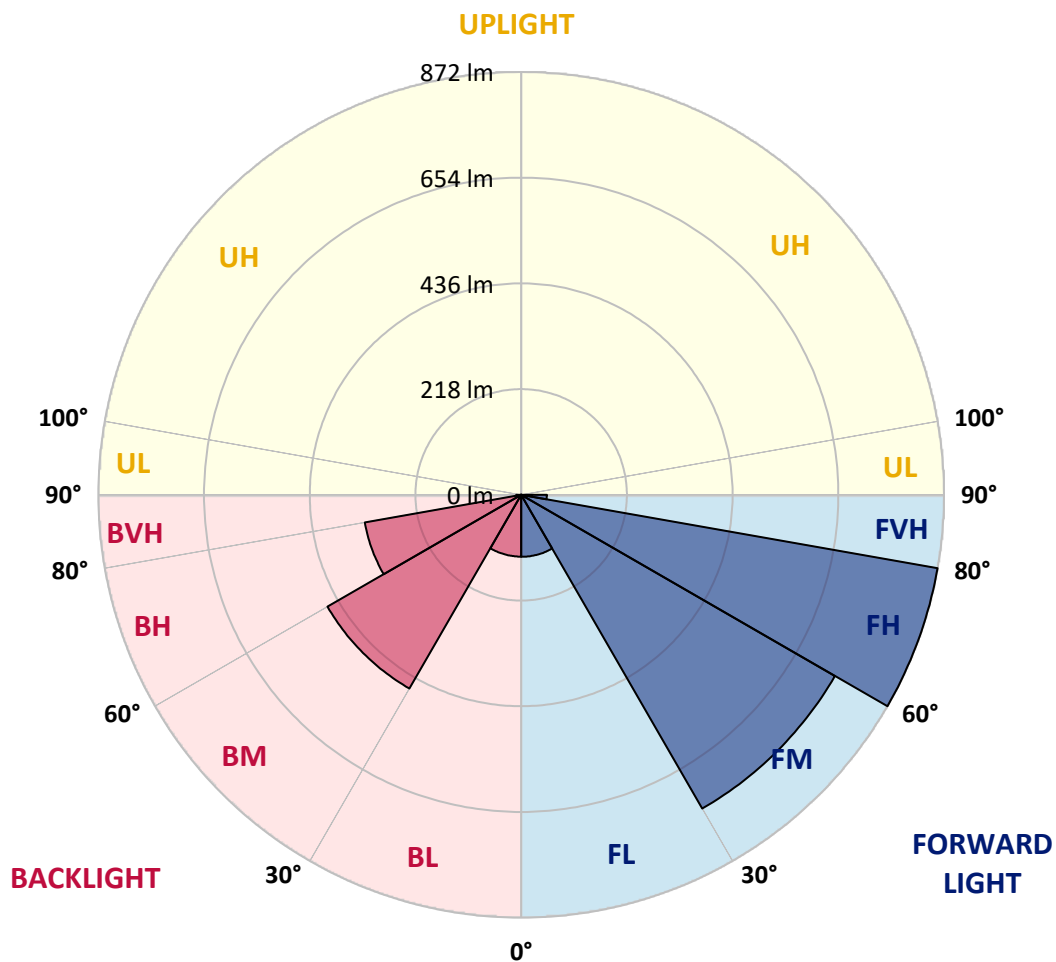
CATALOG NUMBER: LDRL-T3-E01-E-7030

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	127.9	4.7			
FM (30°-60°)	747.3	27.4			
FH (60°-80°)	872.4	32.0			G1/1800
FVH (80°-90°)	53.0	1.9			G1/100
BL (0°-30°)	127.5	4.7	B1/500		
BM (30°-60°)	461.4	16.9	B1/1000		
BH (60°-80°)	327.5	12.0	B1/500		G1/500
BVH (80°-90°)	10.1	0.4			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type III Short





REPORT NUMBER: P146579

CATALOG NUMBER: LDRL-T3-E01-E-7030

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6
2.5°	293.2	293.0	292.8	292.8	292.6	292.8	293.0	293.2	293.0	293.2	293.0
5°	292.6	292.6	292.5	292.5	292.5	292.5	292.6	292.8	292.6	293.0	292.6
7.5°	290.3	291.4	291.0	291.4	291.7	292.1	292.3	292.6	293.2	293.6	293.2
10°	287.2	287.7	287.9	288.3	289.0	289.9	290.6	291.5	292.8	293.2	293.6
12.5°	281.5	282.2	282.8	283.5	284.6	286.1	287.3	288.8	291.0	292.5	293.7
15°	277.3	278.2	278.4	279.3	280.4	282.0	283.7	285.9	288.8	291.4	293.9
17.5°	280.0	280.4	280.0	280.0	280.4	281.1	282.4	284.2	287.3	290.4	293.6
20°	288.3	288.3	287.9	287.7	287.3	286.6	286.4	286.2	288.3	290.6	293.4
22.5°	296.1	296.1	295.9	296.7	296.5	296.5	295.9	295.0	294.1	293.7	295.6
25°	301.0	301.8	302.1	303.2	304.0	305.1	305.4	305.2	304.0	301.8	301.2
27.5°	309.1	309.6	310.0	311.3	312.7	314.0	315.3	316.9	316.9	314.9	312.2
30°	324.6	323.9	324.2	324.6	325.9	327.7	329.4	331.5	332.6	331.9	328.3
32.5°	339.0	339.8	340.1	341.2	342.5	345.2	347.3	349.8	352.2	352.6	350.7
35°	360.2	359.9	359.3	363.1	364.6	367.7	370.1	373.7	375.6	377.2	376.1
37.5°	393.7	392.6	391.8	392.9	394.9	396.9	400.4	403.2	406.3	410.1	408.8
40°	441.0	443.2	440.1	441.5	443.2	438.6	441.7	444.3	449.6	449.7	449.6
42.5°	502.5	504.2	503.4	504.4	501.4	500.0	498.7	500.0	506.5	505.6	501.2
45°	564.1	566.5	565.9	566.3	571.9	569.6	571.6	571.9	578.7	576.9	573.6
47.5°	616.7	620.7	621.6	624.9	632.6	638.8	647.4	653.8	657.1	659.3	661.8
50°	658.3	661.3	666.4	674.6	685.7	696.5	715.9	728.5	740.0	748.0	756.3
52.5°	685.9	689.2	697.1	709.5	725.6	745.3	767.9	794.2	818.5	832.8	845.0
55°	697.3	700.5	710.2	726.5	747.9	773.1	805.6	842.7	875.0	907.7	926.5
57.5°	690.7	694.3	705.5	723.7	749.5	782.6	822.9	868.4	915.7	965.2	1003.0
60°	671.3	674.6	687.2	706.2	735.6	772.9	821.3	878.3	944.8	1018.2	1090.0
62.5°	644.6	649.6	660.7	680.1	709.3	750.0	805.2	879.4	974.7	1093.1	1232.8
65°	610.7	614.3	624.2	639.5	671.7	714.2	772.5	863.3	987.9	1155.8	1355.2
66°	593.1	596.6	605.7	620.2	649.6	690.5	748.8	841.7	973.3	1155.4	1368.2
67.5°	562.3	563.9	570.5	584.7	603.9	640.6	694.7	781.8	911.3	1106.6	1332.0
70°	471.7	474.0	480.4	487.7	494.9	508.0	545.8	603.4	706.9	894.2	1109.2
72.5°	326.2	329.9	336.8	350.4	361.5	378.1	392.9	412.1	446.4	576.5	793.5
75°	235.8	237.1	247.3	271.1	293.6	326.8	356.2	365.5	353.8	351.8	466.2
77.5°	140.7	142.5	157.3	181.2	204.6	249.7	310.0	356.6	382.3	373.2	352.9
80°	59.2	61.7	70.5	76.7	96.1	133.9	193.4	266.5	334.5	376.3	366.8
82.5°	19.0	22.1	26.1	31.6	37.3	49.9	77.3	115.6	182.7	272.4	334.8
85°	6.9	7.1	9.9	13.7	15.2	17.5	22.5	34.7	61.7	102.1	190.0
87.5°	2.7	3.3	3.8	5.3	5.5	5.7	6.4	8.2	8.0	6.9	36.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P146579

CATALOG NUMBER: LDRL-T3-E01-E-7030

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6
2.5°	293.2	293.6	293.4	293.6	293.6	293.2	293.2	293.9	293.4	293.7	293.7
5°	293.0	293.4	293.2	293.6	293.6	293.4	293.4	294.5	294.3	294.8	295.2
7.5°	293.7	293.9	293.7	293.7	294.3	294.1	294.3	294.6	295.6	296.5	297.2
10°	294.6	295.0	295.6	295.7	296.5	296.3	296.8	297.4	298.3	299.2	300.1
12.5°	295.9	297.0	298.7	299.0	299.8	300.3	301.2	301.8	302.5	304.0	305.1
15°	297.0	299.0	301.0	301.8	302.5	303.2	304.1	304.7	306.0	307.3	308.5
17.5°	297.4	299.8	302.3	303.2	304.0	305.2	306.3	307.4	308.9	310.5	312.0
20°	297.6	300.9	304.1	305.2	306.9	308.7	310.5	311.5	313.5	315.5	316.7
22.5°	299.2	303.2	307.8	309.8	311.5	314.7	317.1	318.6	321.0	322.6	323.1
25°	303.8	308.0	313.5	316.6	319.3	324.1	327.0	329.7	331.0	333.2	332.6
27.5°	312.0	315.3	322.4	326.6	330.1	336.3	342.0	344.5	346.5	347.6	346.3
30°	326.1	327.3	335.2	340.3	346.2	355.8	362.1	365.3	367.9	368.1	364.8
32.5°	347.1	345.1	352.0	359.3	367.0	378.7	387.1	390.5	392.6	392.7	385.4
35°	375.6	372.1	377.9	385.1	394.6	409.9	420.5	424.5	427.6	426.2	415.4
37.5°	411.6	411.4	414.1	423.2	434.0	453.8	464.9	467.1	466.9	462.5	446.3
40°	451.6	448.3	448.6	455.2	467.6	493.6	509.1	512.8	511.5	505.1	483.9
42.5°	502.0	500.5	495.6	499.1	510.6	542.2	561.0	564.6	565.7	555.1	530.1
45°	572.7	571.4	560.4	561.2	569.6	602.8	622.4	628.4	628.6	618.5	586.0
47.5°	658.3	657.2	644.5	640.8	645.0	674.6	698.9	700.2	700.5	686.7	652.9
50°	755.5	752.4	742.7	738.9	734.0	766.7	786.2	786.0	784.0	768.7	730.7
52.5°	849.4	856.4	852.7	845.2	845.4	869.0	887.4	877.2	878.5	863.8	820.2
55°	949.7	967.4	980.8	983.5	982.2	994.3	1004.5	986.2	979.5	977.1	930.7
57.5°	1056.2	1101.5	1142.6	1159.8	1153.2	1175.3	1184.4	1165.4	1165.8	1184.4	1144.4
60°	1198.5	1312.8	1416.4	1448.6	1463.6	1500.1	1483.8	1482.7	1511.4	1535.5	1461.4
62.5°	1414.4	1603.8	1769.2	1793.1	1805.1	1813.4	1806.1	1786.1	1815.7	1818.7	1704.3
65°	1578.1	1800.4	1960.2	1990.2	1988.0	1946.2	1905.6	1865.8	1865.4	1836.2	1689.0
66°	1595.8	1819.0	1974.8	2001.3	1991.7	1927.2	1875.7	1824.0	1807.3	1763.5	1614.1
67.5°	1557.1	1786.5	1941.2	1965.0	1944.3	1846.2	1776.1	1706.1	1681.1	1620.1	1467.8
70°	1331.1	1567.5	1774.5	1808.8	1784.3	1654.1	1550.1	1473.2	1405.1	1345.0	1219.3
72.5°	1032.1	1208.9	1427.9	1463.7	1465.7	1363.8	1246.7	1172.9	1093.6	1033.4	939.1
75°	677.0	810.7	931.1	919.0	922.5	842.3	772.5	711.1	639.3	591.9	546.9
77.5°	395.7	443.5	432.6	402.6	377.4	296.7	212.3	145.8	127.1	132.6	149.6
80°	344.0	317.1	248.2	218.3	198.6	134.8	72.5	51.1	44.9	45.5	48.2
82.5°	370.3	384.2	315.3	259.6	226.3	158.7	85.3	42.6	30.7	35.8	39.5
85°	287.3	365.7	337.2	285.0	239.7	168.8	87.1	27.0	18.3	24.5	30.9
87.5°	81.8	129.5	103.6	91.5	73.8	50.4	20.8	10.8	9.9	12.8	17.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





REPORT NUMBER: P146579

CATALOG NUMBER: LDRL-T3-E01-E-7030

**CANDELA DISTRIBUTION (continued):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6
2.5°	293.9	293.9	294.5	294.6	294.8	294.8	295.2	295.2	295.4	296.1	295.9
5°	295.7	296.3	297.0	297.4	297.9	298.1	298.7	298.7	299.2	299.8	299.6
7.5°	297.9	298.5	299.0	299.6	300.1	300.9	300.7	300.5	300.3	299.9	299.6
10°	301.0	301.6	302.1	302.0	301.6	301.2	299.8	298.1	297.4	295.9	294.8
12.5°	306.2	306.7	306.2	304.7	302.7	300.3	297.2	294.5	292.8	290.6	289.3
15°	310.0	310.5	309.4	306.9	303.6	300.5	296.3	292.8	289.9	287.5	285.7
17.5°	312.9	312.5	310.2	307.3	303.8	301.2	297.4	293.6	290.1	286.8	284.2
20°	317.1	315.1	311.6	308.0	304.5	302.3	299.2	295.7	292.1	287.3	284.1
22.5°	322.6	318.9	314.4	310.7	307.4	305.2	302.1	298.8	295.4	289.9	285.3
25°	330.5	324.6	319.3	315.5	312.5	310.4	306.5	303.0	299.2	293.7	287.9
27.5°	341.4	333.0	327.5	323.7	320.8	318.2	313.3	309.1	304.1	298.7	291.7
30°	355.7	345.4	339.4	336.1	333.0	329.4	324.1	317.8	311.5	304.1	296.7
32.5°	373.4	361.9	356.2	352.9	348.9	344.0	337.0	328.8	319.3	309.6	300.3
35°	398.6	385.4	379.2	373.6	367.7	360.4	350.0	338.1	325.5	312.9	301.4
37.5°	423.6	411.4	403.7	397.9	388.7	376.8	362.4	346.0	329.2	313.1	299.2
40°	459.0	444.8	435.9	425.4	410.6	392.2	371.2	349.1	328.3	308.9	292.5
42.5°	502.5	486.3	472.9	454.1	431.1	404.4	375.4	347.3	321.9	299.6	281.5
45°	557.5	536.3	514.0	484.4	449.2	411.9	375.2	340.9	310.9	285.7	267.8
47.5°	621.6	591.9	554.4	509.3	461.1	413.7	369.4	329.4	294.5	266.7	246.1
50°	687.6	644.5	591.3	528.5	467.1	409.2	356.4	310.5	272.9	241.3	219.0
52.5°	768.9	702.0	624.7	541.4	464.5	395.7	334.8	284.1	243.9	213.0	187.4
55°	865.7	768.1	656.5	548.6	453.2	371.4	302.1	249.3	207.1	179.0	156.0
57.5°	1025.9	871.7	710.8	559.2	430.9	335.2	262.3	207.7	168.1	144.1	125.7
60°	1302.1	1084.1	825.5	585.3	400.0	283.7	211.7	162.8	130.1	110.9	97.9
62.5°	1494.8	1212.9	887.2	576.3	347.6	223.4	156.5	116.4	94.8	82.2	73.4
65°	1457.3	1162.1	812.9	489.6	272.4	158.0	104.1	78.7	66.5	58.6	54.3
66°	1390.1	1106.1	756.3	439.5	236.2	131.7	85.9	65.2	57.2	51.5	48.6
67.5°	1267.5	989.9	654.5	352.7	176.8	97.2	65.2	50.8	46.4	43.5	41.5
70°	1049.4	782.7	450.6	208.4	93.5	54.4	41.5	37.4	35.4	34.2	34.0
72.5°	804.7	561.5	260.7	100.8	50.1	36.2	31.8	30.3	29.6	29.2	29.2
75°	497.0	316.7	116.5	50.6	34.5	29.6	27.6	26.9	26.7	26.7	26.7
77.5°	174.8	110.3	52.2	37.1	30.3	26.7	25.0	24.7	25.0	25.0	25.0
80°	48.2	42.6	37.8	32.9	27.4	24.7	23.2	23.0	23.7	23.9	23.2
82.5°	37.6	35.4	32.3	29.4	25.0	22.5	21.7	22.1	22.5	21.9	20.8
85°	32.1	30.7	22.7	22.7	20.3	19.5	19.4	19.7	19.5	18.1	16.6
87.5°	18.3	16.1	12.2	13.3	14.2	14.6	12.2	13.2	13.0	11.5	10.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P146579

CATALOG NUMBER: LDRL-T3-E01-E-7030

**CANDELA DISTRIBUTION (continued):**

	160°	165°	170°	175°	180°
0°	293.6	293.6	293.6	293.6	293.6
2.5°	296.3	296.3	296.7	296.7	296.5
5°	299.9	299.9	300.5	300.1	300.3
7.5°	299.2	298.5	298.5	298.1	297.9
10°	294.1	292.8	292.1	292.5	291.9
12.5°	288.3	287.2	286.4	286.2	286.1
15°	284.6	283.3	282.8	282.4	282.4
17.5°	282.6	281.1	280.4	279.9	279.7
20°	281.7	279.9	278.8	278.2	277.8
22.5°	282.0	279.9	278.4	277.7	277.3
25°	283.5	280.8	278.9	278.0	277.5
27.5°	286.1	282.4	280.4	279.1	278.4
30°	289.2	284.1	281.1	279.3	278.6
32.5°	291.2	284.2	280.6	277.8	277.1
35°	290.8	282.2	277.5	274.0	273.5
37.5°	287.2	276.9	271.1	266.5	266.0
40°	279.3	268.9	262.1	257.6	256.5
42.5°	268.3	257.6	250.3	246.1	244.6
45°	252.3	239.1	232.4	228.9	226.9
47.5°	229.6	217.2	209.7	206.8	204.2
50°	203.9	190.2	184.7	181.4	178.5
52.5°	173.5	161.8	157.6	154.5	152.2
55°	144.1	135.9	131.0	127.7	127.9
57.5°	115.8	110.9	108.1	104.7	105.0
60°	91.2	87.0	87.0	84.8	84.0
62.5°	69.6	68.0	67.4	66.7	65.4
65°	52.8	52.8	53.0	53.0	52.2
66°	47.5	48.0	48.8	48.8	47.9
67.5°	41.1	41.8	42.6	42.9	42.9
70°	34.0	34.9	35.3	35.6	35.4
72.5°	29.8	30.5	30.5	30.7	30.3
75°	27.0	27.4	27.6	27.2	27.0
77.5°	25.0	25.2	25.0	24.8	24.7
80°	22.7	22.5	21.9	21.2	21.0
82.5°	19.5	18.8	18.4	17.4	17.2
85°	15.7	14.8	14.1	12.6	11.9
87.5°	10.4	10.0	9.5	6.9	5.7
90°	0.0	0.0	0.0	0.0	0.0

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