

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: P163836

Luminaire Tested: **LDRL-SL4-E06-E-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P163836
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33728)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: LDRL-SL4-E06-E-7030-HSS
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(6) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (126) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10816.3 lumens
Efficiency: N/A
Efficacy: 71.9 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 1' x H: 0.1')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G3

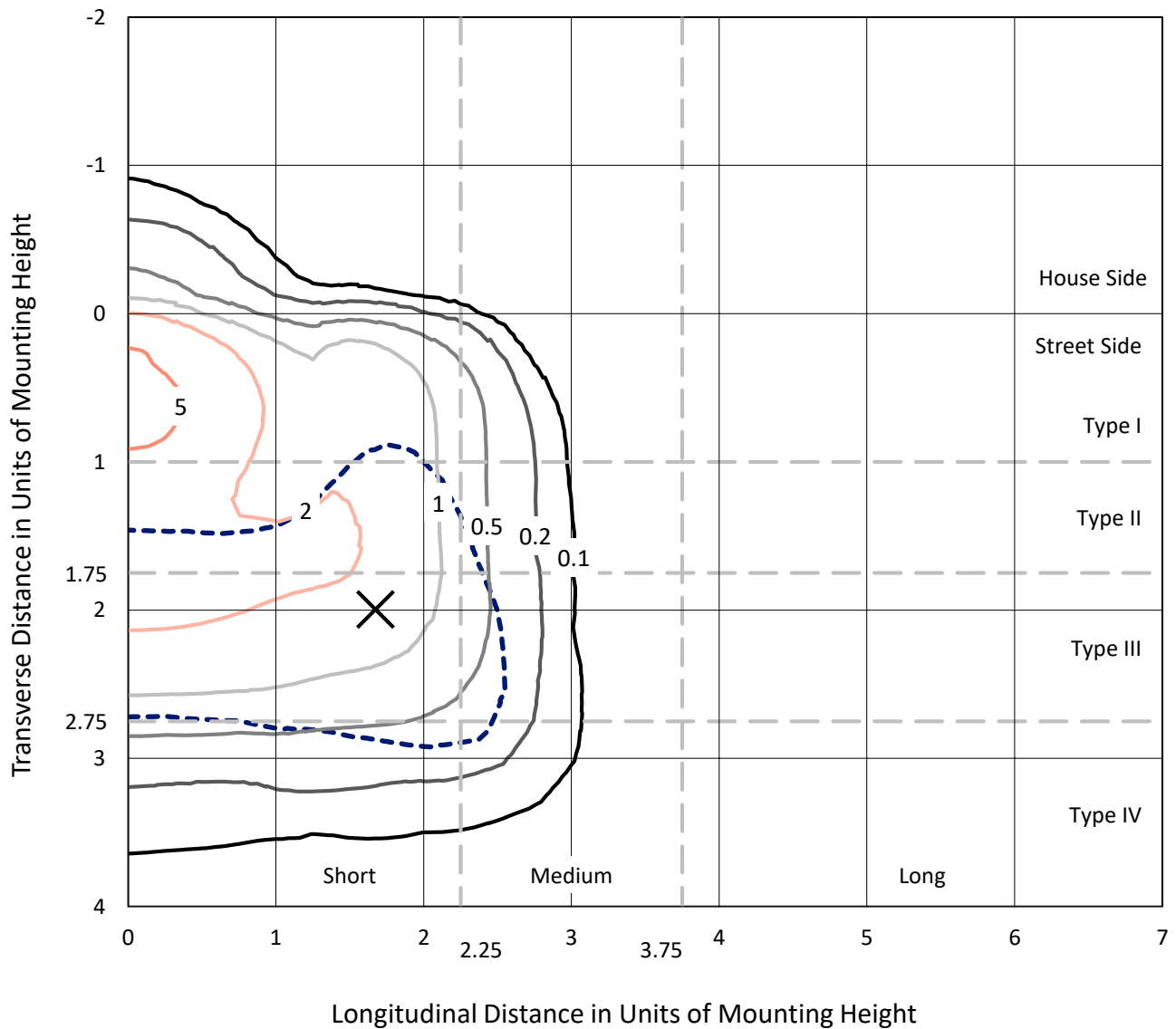
Input Watts (W): 150.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P163836
 CATALOG NUMBER: LDRL-SL4-E06-E-7030-HSS

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

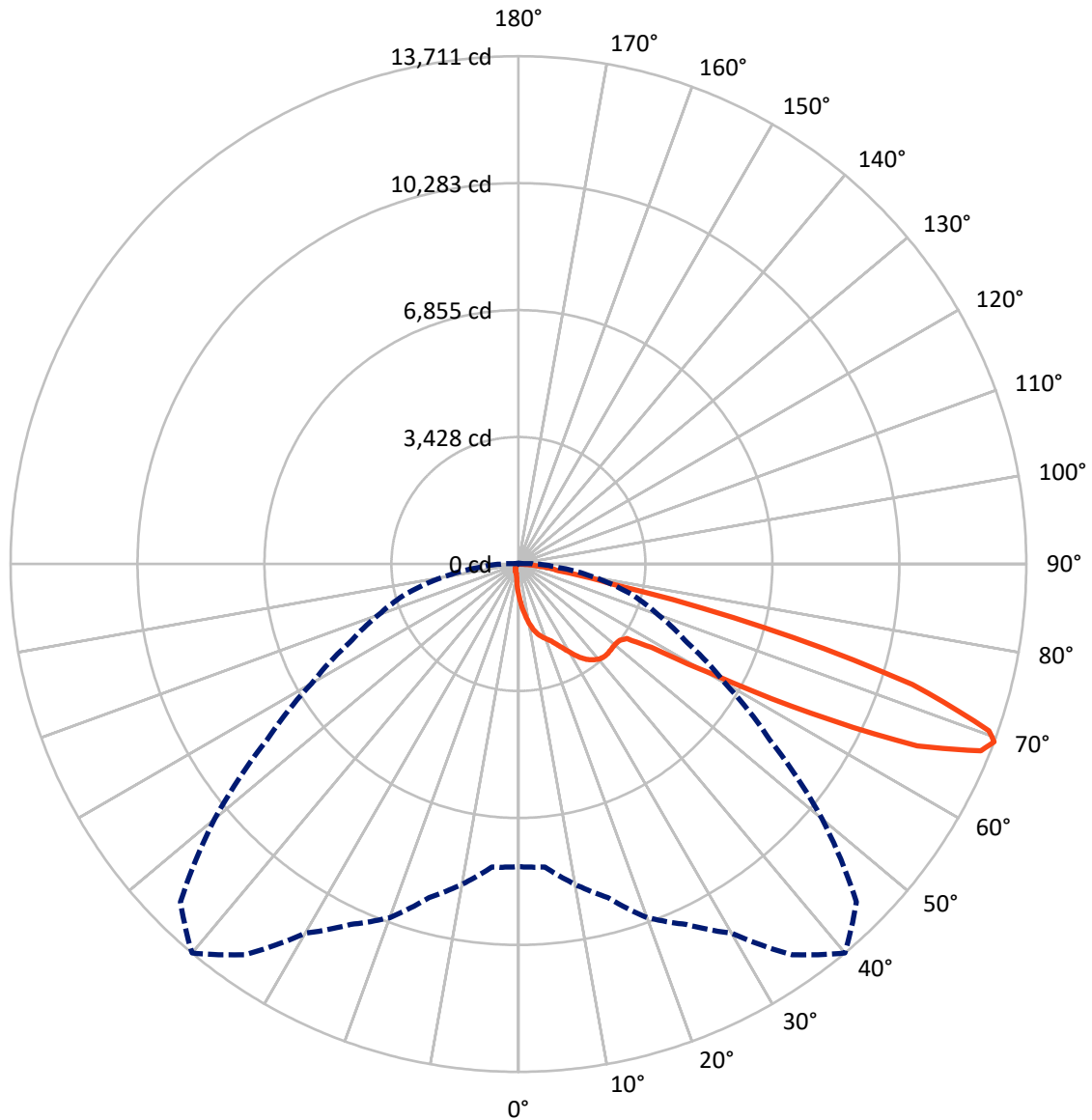


Based on 20 foot mounting height. Maximum calculated value = 6.1 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P163836

CATALOG NUMBER: LDRL-SL4-E06-E-7030-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P163836

CATALOG NUMBER: LDRL-SL4-E06-E-7030-HSS

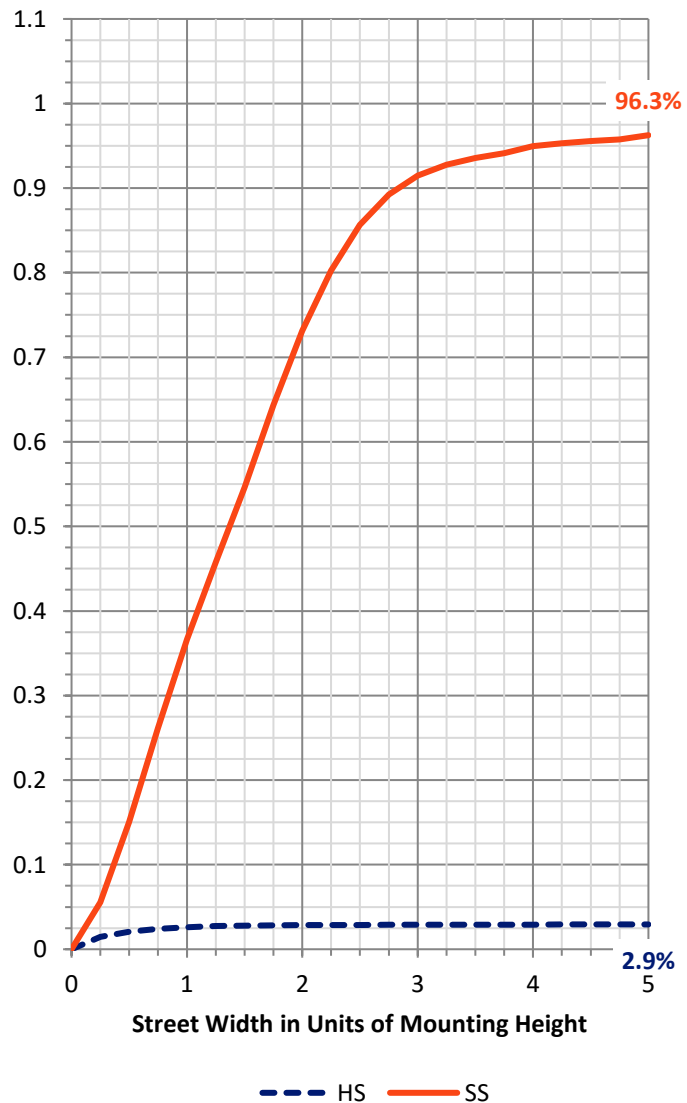
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	322.1	0.0	322.1
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	10494.2	0.0	10494.2
	% Fixture	97.0	0.0	97.0
Total	Lumens	10816.3	0.0	10816.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.0	0.8
10°-20°	289.5	2.7
20°-30°	554.0	5.1
30°-40°	921.4	8.5
40°-50°	1246.7	11.5
50°-60°	1949.8	18.0
60°-70°	4008.7	37.1
70°-80°	1613.0	14.9
80°-90°	149.2	1.4
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°	10816.3	100.0
0°-180°	10816.3	100.0



REPORT NUMBER: P163836

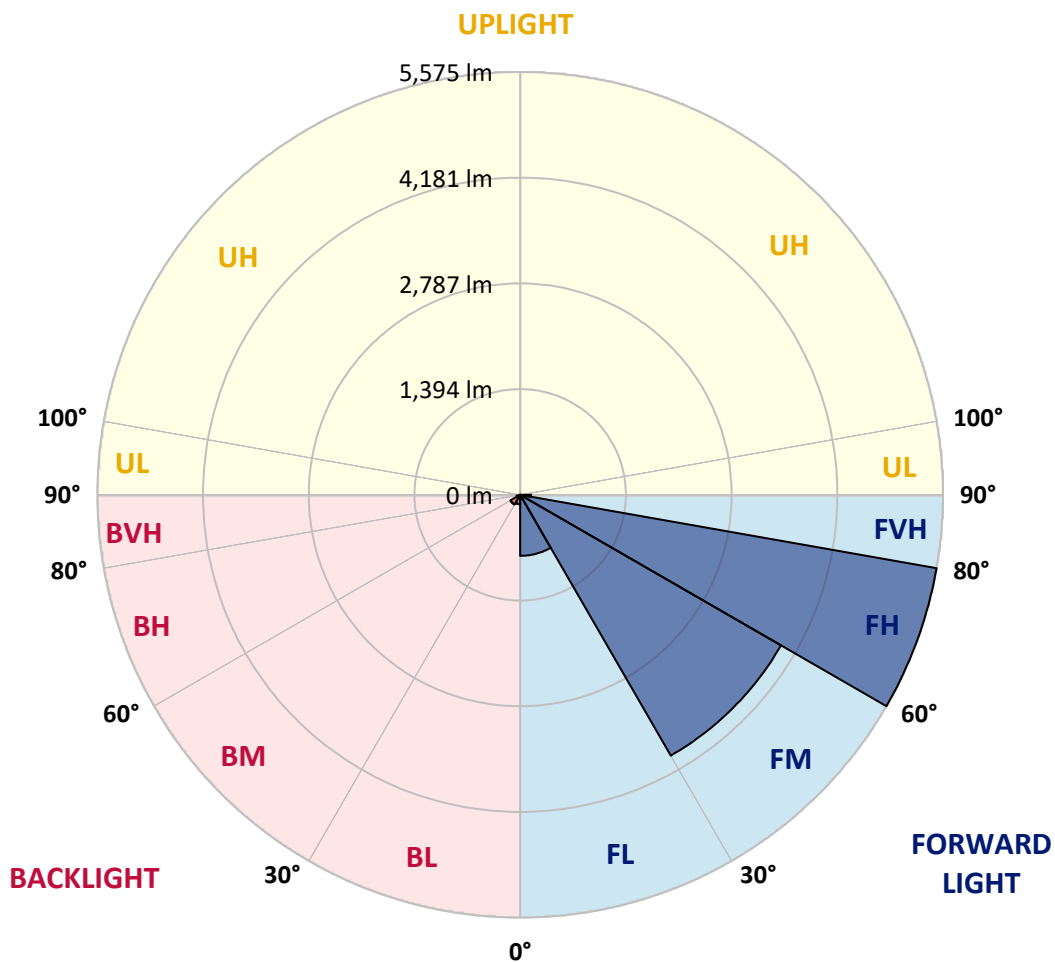
CATALOG NUMBER: LDRL-SL4-E06-E-7030-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	804.9	7.4			
FM (30°-60°)	3970.8	36.7			
FH (60°-80°)	5574.8	51.5			G3/7500
FVH (80°-90°)	143.7	1.3			G2/225
BL (0°-30°)	122.5	1.1	B1/500		
BM (30°-60°)	147.1	1.4	B0/220		
BH (60°-80°)	47.0	0.4	B0/110		G0/110
BVH (80°-90°)	5.5	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type IV Short





REPORT NUMBER: P163836

CATALOG NUMBER: LDRL-SL4-E06-E-7030-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	816.9	816.9	816.9	816.9	816.9	816.9	816.9	816.9	816.9	816.9	816.9
2.5°	1089.7	1077.3	1063.1	1063.1	1045.4	1045.4	1034.8	1006.5	1002.9	987.0	971.0
5°	1391.0	1380.3	1362.6	1346.7	1332.4	1307.7	1289.9	1256.3	1219.1	1183.6	1151.7
7.5°	1685.0	1679.8	1647.9	1642.5	1619.5	1578.7	1543.3	1493.7	1429.9	1380.3	1321.8
10°	1957.9	1945.5	1938.4	1908.3	1874.6	1830.4	1775.4	1715.2	1640.7	1562.8	1479.5
12.5°	2174.1	2167.1	2135.2	2122.7	2087.3	2043.0	1973.8	1895.9	1821.5	1720.5	1623.1
15°	2335.3	2322.9	2301.6	2282.1	2239.6	2200.7	2136.9	2051.9	1961.4	1851.6	1734.7
17.5°	2470.0	2447.0	2441.6	2411.6	2367.2	2321.2	2250.2	2172.3	2066.0	1956.2	1828.6
20°	2650.7	2618.8	2608.2	2563.9	2512.5	2448.7	2367.2	2269.7	2158.2	2037.6	1906.5
22.5°	2863.4	2840.3	2817.3	2778.3	2712.8	2622.3	2503.6	2397.3	2255.6	2122.7	1980.9
25°	3164.5	3145.1	3107.9	3054.7	2973.2	2865.1	2721.6	2565.7	2399.1	2229.0	2062.5
27.5°	3457.0	3439.2	3412.7	3371.9	3279.7	3161.0	2983.8	2785.4	2574.6	2369.0	2184.7
30°	3731.6	3715.6	3689.1	3648.3	3566.8	3449.8	3249.6	3037.0	2774.8	2535.5	2314.0
32.5°	4027.4	4022.2	3992.0	3933.6	3862.7	3705.0	3487.1	3258.5	2992.7	2716.3	2457.6
35°	4362.4	4321.6	4293.2	4234.8	4114.4	3946.0	3690.8	3441.0	3161.0	2877.5	2588.7
37.5°	4645.9	4606.9	4571.5	4497.1	4350.0	4135.6	3846.7	3572.1	3283.3	2994.4	2700.4
40°	4853.2	4833.7	4791.1	4693.7	4529.0	4273.8	3961.9	3662.5	3371.9	3081.4	2790.7
42.5°	5007.4	4977.2	4929.4	4828.4	4633.4	4342.9	4008.0	3699.7	3412.7	3134.5	2849.2
45°	5064.1	5039.3	4994.9	4885.1	4674.2	4362.4	4006.2	3689.1	3414.4	3150.4	2888.1
47.5°	5030.4	5005.5	4966.6	4863.8	4656.6	4339.4	3974.3	3659.0	3396.7	3155.8	2923.6
50°	4918.7	4904.6	4874.4	4787.6	4601.5	4295.1	3946.0	3643.0	3393.2	3182.3	2973.2
52.5°	4908.1	4899.2	4862.1	4775.3	4585.6	4280.8	3942.4	3651.8	3423.3	3215.9	3008.7
55°	5997.9	5872.0	5590.3	5351.1	4957.7	4490.0	4121.4	3795.4	3550.9	3348.9	3203.6
57.5°	8524.5	8336.7	7966.4	7511.0	6607.4	5719.6	5009.1	4495.2	4241.9	4149.8	4204.7
60°	9708.1	9674.5	9616.0	9399.8	8937.4	8173.7	7323.2	6403.6	6035.0	6003.1	6114.8
62.5°	10269.8	10248.6	10266.3	10239.7	10096.2	9873.0	9628.4	9231.5	8866.5	8630.8	8131.2
65°	10528.5	10542.7	10643.7	10723.5	10741.1	10799.6	10978.6	11472.9	11834.4	11226.6	9839.3
67.5°	9871.2	9954.4	10186.5	10477.2	10817.3	11146.9	11678.4	12720.3	13462.7	12748.7	10778.4
69°	8171.9	8212.7	8779.7	9327.1	10158.2	10739.4	11510.2	12876.3	13710.8	12904.7	10704.0
70°	6433.7	6470.9	7078.6	7822.8	9227.9	9975.6	10983.9	12612.2	13478.7	12697.3	10321.2
72.5°	2902.4	2849.2	3063.6	3462.2	4989.6	6176.7	7939.8	10218.4	11120.3	10172.4	7721.9
75°	2027.0	2004.0	2027.0	2028.8	2266.2	2923.6	3689.1	5538.8	6850.1	5910.9	3689.1
77.5°	1569.9	1553.9	1538.0	1520.3	1548.7	1734.7	1809.1	1965.1	2551.5	2413.3	1406.9
80°	1242.1	1227.9	1266.9	1254.5	1254.5	1275.8	1261.6	1203.1	1093.3	1013.5	907.2
82.5°	577.6	581.2	581.2	630.8	760.1	887.7	928.4	870.0	772.6	657.4	529.8
85°	54.9	62.0	104.6	161.2	320.7	361.5	363.2	301.2	301.2	237.4	191.4
87.5°	0.0	1.8	1.8	1.8	15.9	44.3	37.2	10.6	5.3	5.3	8.9
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: P163836

CATALOG NUMBER: LDRL-SL4-E06-E-7030-HSS

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	816.9	816.9	816.9	816.9	816.9	816.9	816.9	816.9	816.9	816.9	816.9
2.5°	942.7	937.3	916.1	894.8	875.3	854.0	834.5	815.1	793.8	777.8	758.3
5°	1102.2	1063.1	1018.9	976.3	933.8	889.5	843.4	802.6	760.1	721.2	683.9
7.5°	1263.4	1187.2	1126.9	1050.8	981.6	912.5	848.8	783.2	722.9	666.3	613.1
10°	1399.8	1307.7	1213.7	1116.3	1017.1	924.9	836.4	758.3	678.7	609.5	544.0
12.5°	1511.4	1394.5	1279.3	1157.1	1045.4	928.4	818.6	724.7	630.8	552.8	485.5
15°	1612.5	1477.8	1339.6	1197.8	1056.0	923.2	800.9	683.9	588.2	499.7	423.5
17.5°	1693.9	1539.8	1383.8	1224.4	1072.0	916.1	777.8	655.6	544.0	451.8	377.4
20°	1764.8	1603.6	1435.2	1256.3	1082.6	914.3	758.3	620.1	504.9	407.5	334.8
22.5°	1830.4	1669.1	1488.4	1297.0	1098.5	912.5	740.7	593.6	471.3	373.9	301.2
25°	1904.8	1734.7	1545.1	1339.6	1126.9	919.6	730.1	572.3	441.1	342.0	274.7
27.5°	1988.1	1809.1	1612.5	1392.7	1164.1	933.8	726.4	549.3	414.6	311.8	253.4
30°	2105.0	1897.6	1679.8	1445.9	1197.8	949.7	722.9	535.1	388.0	288.8	232.1
32.5°	2207.7	1984.5	1754.2	1500.8	1235.0	965.7	721.2	515.6	363.2	265.8	216.1
35°	2315.9	2064.2	1818.0	1553.9	1266.9	983.3	719.4	501.4	340.2	242.8	200.2
37.5°	2409.7	2131.5	1867.5	1600.0	1302.3	999.4	721.2	489.0	318.9	223.3	186.0
40°	2489.5	2200.7	1922.5	1642.5	1339.6	1024.1	722.9	476.7	297.7	205.5	173.6
42.5°	2560.4	2266.2	1980.9	1690.4	1382.1	1052.5	733.6	466.0	279.9	189.6	161.2
45°	2615.3	2326.5	2044.7	1757.7	1451.1	1098.5	753.1	458.9	262.3	175.4	150.6
47.5°	2672.0	2415.1	2152.8	1864.0	1552.2	1171.2	786.7	457.2	248.0	164.7	141.7
50°	2749.9	2503.6	2248.5	1972.1	1644.4	1245.6	827.5	458.9	230.4	154.1	132.8
52.5°	2806.7	2594.1	2372.6	2159.9	1864.0	1472.4	985.2	490.8	221.5	145.3	122.2
55°	3141.5	3104.4	3109.6	3145.1	2916.5	2505.4	1647.9	708.8	260.4	164.7	120.5
57.5°	4429.7	4560.9	4637.0	4635.3	4257.8	3531.4	2213.1	910.8	290.6	191.4	143.5
60°	6123.6	6024.4	5884.4	5538.8	5037.4	4031.1	2475.4	979.8	251.6	152.3	131.1
62.5°	7620.8	7039.7	6524.1	5964.1	5306.8	4204.7	2528.5	974.6	219.8	115.2	92.2
65°	8554.7	7509.3	6676.4	5974.7	5200.5	4059.3	2392.1	894.8	186.0	93.9	76.2
67.5°	8777.9	7255.9	6077.5	5182.8	4344.6	3159.3	1755.9	673.3	145.3	77.9	67.3
69°	8290.6	6449.6	5035.7	4020.4	3161.0	2096.1	1086.2	425.3	111.6	70.9	62.0
70°	7626.2	5609.8	4101.9	3226.6	2340.7	1472.4	760.1	299.4	90.3	65.5	56.7
72.5°	4906.3	2946.7	2016.3	1403.3	965.7	586.5	297.7	134.7	69.0	54.9	46.0
75°	1903.0	1089.7	790.2	600.6	469.5	326.1	180.7	86.8	58.4	46.0	35.4
77.5°	937.3	717.6	586.5	402.2	233.9	145.3	97.4	67.3	47.8	33.6	23.0
80°	740.7	492.6	294.2	182.5	138.2	104.6	74.4	54.9	35.4	21.3	15.9
82.5°	379.2	207.3	152.3	124.1	102.8	81.5	60.3	39.0	23.0	14.1	12.4
85°	118.7	86.8	77.9	76.2	70.9	58.4	42.5	24.8	14.1	8.9	8.9
87.5°	8.9	12.4	15.9	12.4	14.1	12.4	15.9	10.6	7.1	7.1	5.3
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: P163836

CATALOG NUMBER: LDRL-SL4-E06-E-7030-HSS

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	816.9	816.9	816.9	816.9	816.9	816.9	816.9	816.9	816.9	816.9	816.9
2.5°	744.2	722.9	703.4	691.0	668.0	659.1	650.3	646.8	630.8	634.4	620.1
5°	650.3	613.1	584.7	556.3	529.8	510.3	494.3	474.9	458.9	451.8	437.6
7.5°	565.2	517.4	480.2	450.0	418.1	393.4	372.1	358.0	343.7	329.6	322.4
10°	490.8	439.4	396.9	366.7	336.7	315.4	299.4	288.8	279.9	274.7	272.9
12.5°	421.7	372.1	333.1	306.6	283.5	272.9	265.8	260.4	258.7	256.9	256.9
15°	368.6	318.9	288.8	269.3	258.7	253.4	251.6	248.0	244.5	242.8	242.8
17.5°	318.9	281.7	260.4	249.8	244.5	241.0	237.4	233.9	230.4	228.5	228.5
20°	285.3	255.2	244.5	237.4	232.1	228.5	223.3	219.8	217.9	216.1	214.4
22.5°	258.7	239.2	232.1	226.8	219.8	214.4	210.9	207.3	203.8	202.0	200.2
25°	239.2	226.8	221.5	214.4	207.3	202.0	196.6	191.4	187.9	186.0	182.5
27.5°	225.0	216.1	209.1	200.2	193.1	187.9	182.5	177.2	173.6	170.1	168.3
30°	212.6	203.8	194.9	187.9	179.0	173.6	166.6	161.2	159.5	156.0	152.3
32.5°	200.2	191.4	182.5	173.6	164.7	157.7	154.1	147.1	143.5	141.7	138.2
35°	186.0	177.2	166.6	159.5	150.6	143.5	138.2	132.8	129.3	125.8	124.1
37.5°	173.6	163.0	152.3	143.5	136.5	129.3	124.1	118.7	115.2	111.6	109.8
40°	159.5	148.8	138.2	129.3	122.2	116.9	111.6	106.3	102.8	100.9	100.9
42.5°	147.1	134.7	124.1	116.9	111.6	104.6	99.2	93.9	92.2	90.3	92.2
45°	134.7	122.2	113.4	106.3	100.9	93.9	88.6	85.1	83.3	85.1	86.8
47.5°	124.1	111.6	102.8	97.4	92.2	86.8	81.5	77.9	77.9	81.5	85.1
50°	113.4	100.9	93.9	90.3	85.1	79.7	72.7	70.9	72.7	76.2	79.7
52.5°	102.8	88.6	83.3	81.5	76.2	70.9	65.5	63.8	65.5	69.0	67.3
55°	92.2	77.9	76.2	74.4	69.0	62.0	56.7	56.7	56.7	54.9	51.4
57.5°	88.6	69.0	67.3	65.5	60.3	53.2	49.6	46.0	44.3	39.0	37.2
60°	92.2	62.0	62.0	58.4	53.2	46.0	40.8	35.4	31.9	28.4	28.4
62.5°	74.4	56.7	54.9	51.4	44.3	37.2	31.9	26.5	24.8	23.0	23.0
65°	60.3	51.4	47.8	42.5	37.2	30.1	24.8	21.3	19.5	19.5	21.3
67.5°	54.9	46.0	40.8	35.4	30.1	23.0	19.5	17.8	17.8	19.5	19.5
69°	51.4	42.5	37.2	31.9	26.5	21.3	17.8	17.8	17.8	17.8	19.5
70°	47.8	40.8	35.4	30.1	23.0	17.8	15.9	15.9	17.8	17.8	19.5
72.5°	37.2	31.9	30.1	24.8	17.8	15.9	14.1	15.9	15.9	17.8	17.8
75°	28.4	23.0	23.0	19.5	14.1	12.4	12.4	14.1	14.1	15.9	15.9
77.5°	19.5	15.9	15.9	14.1	12.4	10.6	10.6	12.4	14.1	14.1	15.9
80°	14.1	12.4	10.6	12.4	10.6	8.9	10.6	12.4	12.4	14.1	14.1
82.5°	10.6	10.6	10.6	10.6	8.9	8.9	10.6	10.6	12.4	14.1	14.1
85°	8.9	8.9	8.9	8.9	8.9	8.9	8.9	10.6	10.6	12.4	12.4
87.5°	5.3	5.3	5.3	7.1	7.1	8.9	8.9	8.9	8.9	10.6	10.6
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: P163836

CATALOG NUMBER: LDRL-SL4-E06-E-7030-HSS

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	816.9	816.9	816.9	816.9
2.5°	616.6	614.9	607.7	609.5
5°	432.4	421.7	428.8	427.0
7.5°	317.2	315.4	313.6	317.2
10°	271.0	271.0	269.3	271.0
12.5°	255.2	255.2	255.2	255.2
15°	242.8	242.8	241.0	241.0
17.5°	228.5	228.5	228.5	226.8
20°	214.4	212.6	212.6	212.6
22.5°	198.5	196.6	196.6	196.6
25°	182.5	180.7	180.7	180.7
27.5°	166.6	164.7	163.0	163.0
30°	150.6	148.8	147.1	147.1
32.5°	134.7	132.8	131.1	131.1
35°	120.5	120.5	118.7	116.9
37.5°	108.1	108.1	108.1	108.1
40°	99.2	100.9	100.9	100.9
42.5°	93.9	95.7	97.4	99.2
45°	90.3	93.9	95.7	95.7
47.5°	88.6	90.3	92.2	92.2
50°	81.5	79.7	79.7	79.7
52.5°	65.5	62.0	60.3	58.4
55°	47.8	46.0	42.5	42.5
57.5°	33.6	33.6	31.9	31.9
60°	26.5	26.5	24.8	26.5
62.5°	23.0	23.0	23.0	23.0
65°	21.3	21.3	21.3	21.3
67.5°	21.3	21.3	21.3	21.3
69°	19.5	19.5	19.5	19.5
70°	19.5	19.5	19.5	19.5
72.5°	17.8	17.8	17.8	17.8
75°	15.9	17.8	17.8	17.8
77.5°	15.9	15.9	15.9	15.9
80°	14.1	14.1	15.9	15.9
82.5°	14.1	14.1	14.1	14.1
85°	12.4	12.4	14.1	14.1
87.5°	10.6	10.6	12.4	12.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)