

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: P163561

Luminaire Tested: **LDRL-SL3-F06-E-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P163561
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33727)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: LDRL-SL3-F06-E-7030-HSS
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(6) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (42) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7608.3 lumens
Efficiency: N/A
Efficacy: 48.6 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 1' x H: 0.1')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B0 - U0 - G2

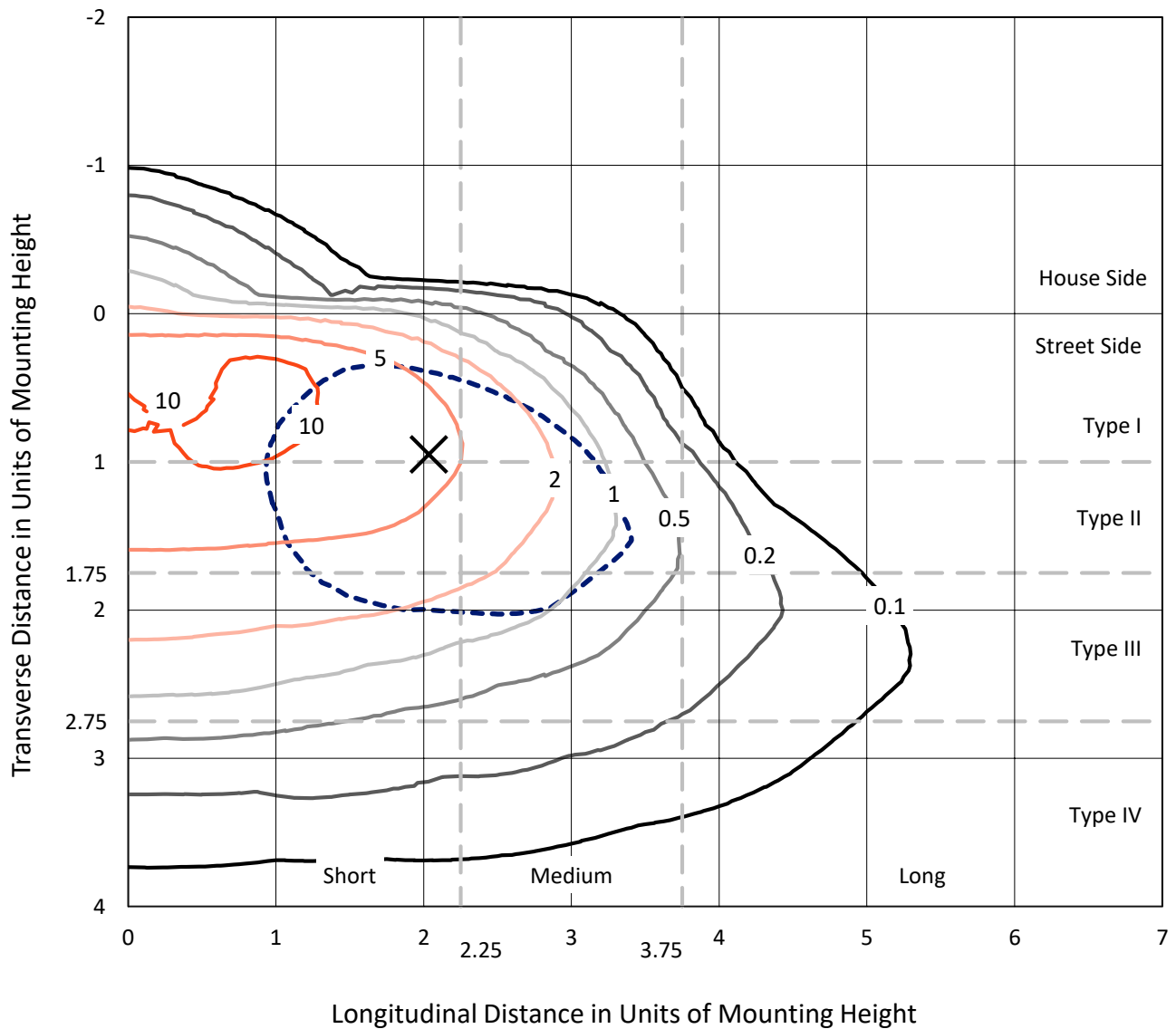
Input Watts (W): 156.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P163561
 CATALOG NUMBER: LDRL-SL3-F06-E-7030-HSS

Iso-Footcandle Lines of Horizontal Illumination

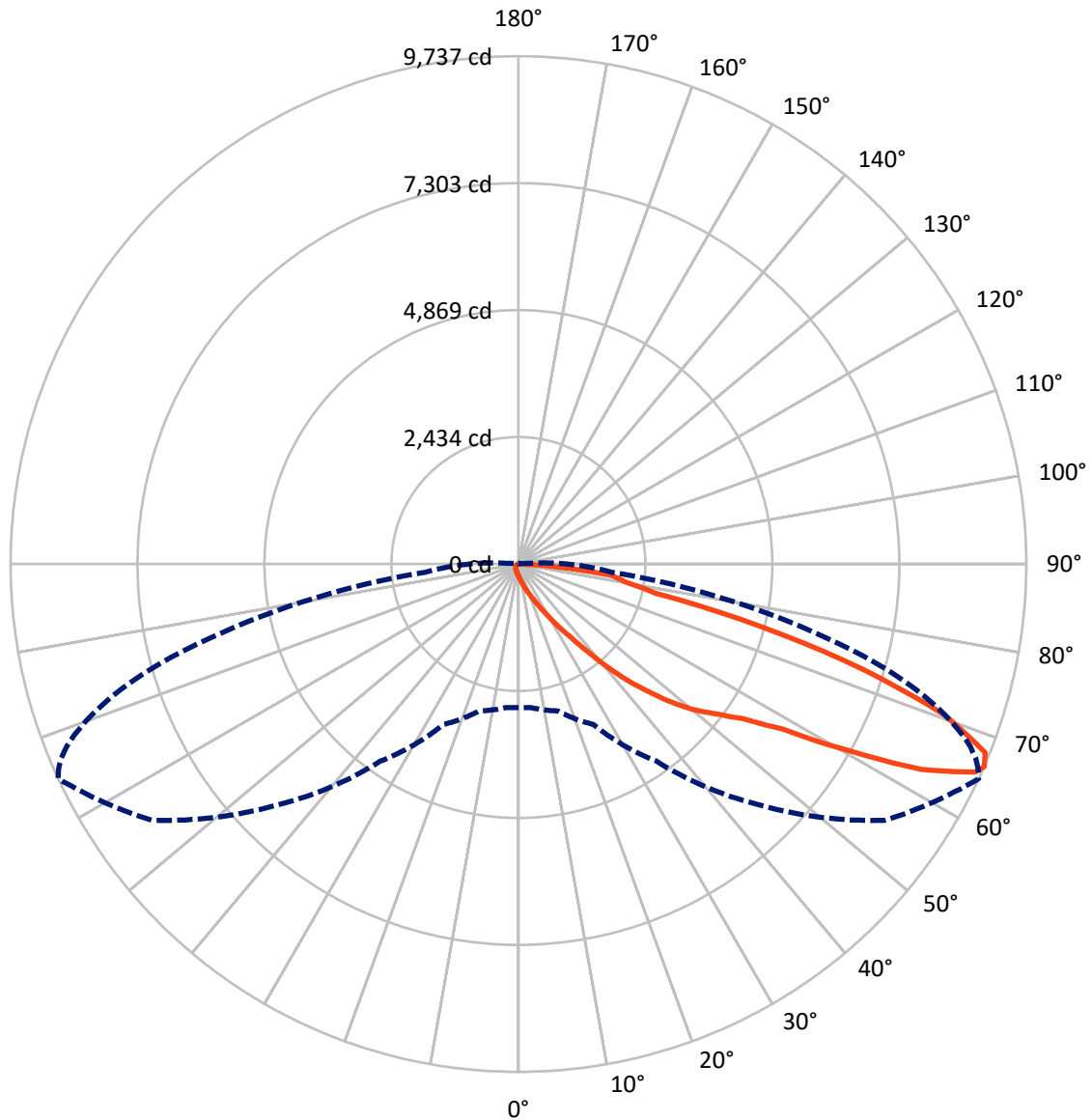
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.6 fc
 Type III - Short - Non-Cutoff

REPORT NUMBER: P163561
CATALOG NUMBER: LDRL-SL3-F06-E-7030-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

REPORT NUMBER: P163561

CATALOG NUMBER: LDRL-SL3-F06-E-7030-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	164.9	0.0	164.9
	% Fixture	2.2	0.0	2.2
Street Side	Lumens	7443.5	0.0	7443.5
	% Fixture	97.8	0.0	97.8
Total	Lumens	7608.3	0.0	7608.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.7	0.3
10°-20°	109.0	1.4
20°-30°	235.1	3.1
30°-40°	502.1	6.6
40°-50°	1110.4	14.6
50°-60°	1881.7	24.7
60°-70°	2510.9	33.0
70°-80°	1106.0	14.5
80°-90°	127.4	1.7
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°	7608.3	100.0
0°-180°	7608.3	100.0



REPORT NUMBER: P163561

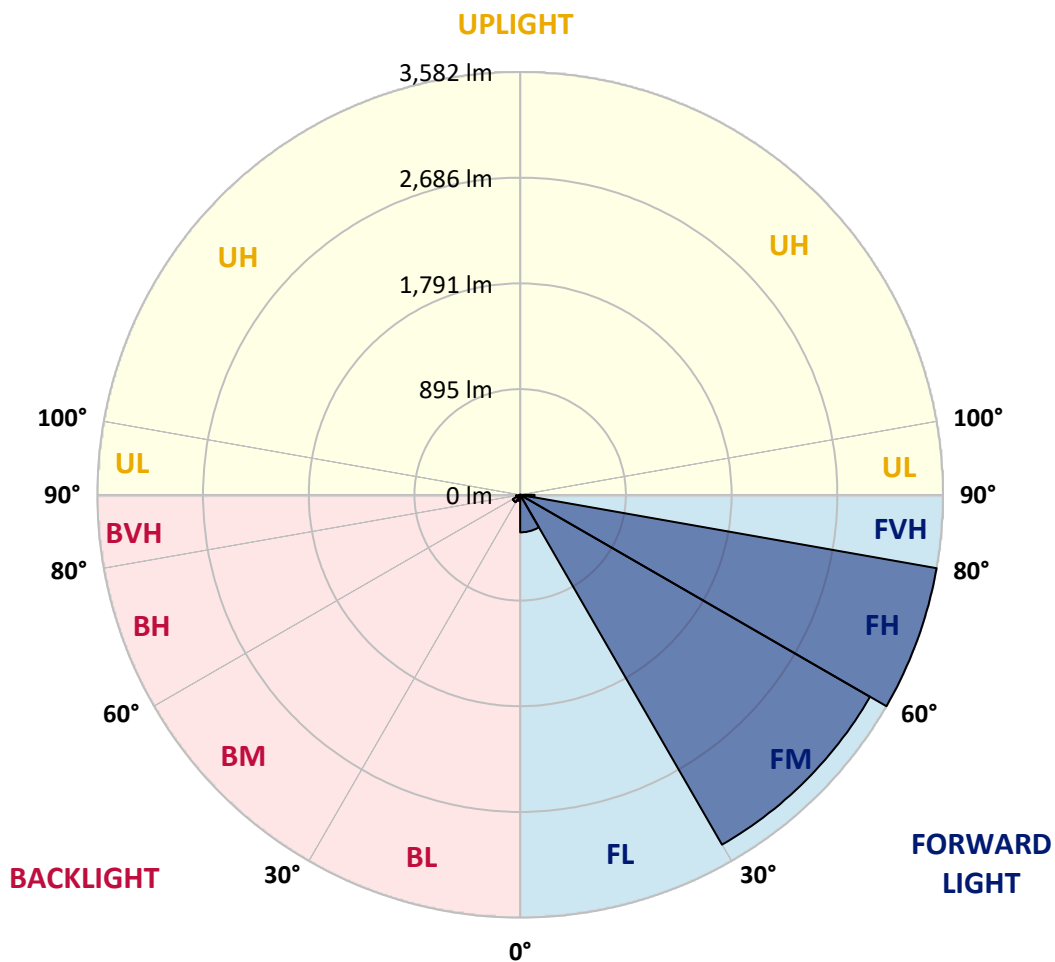
CATALOG NUMBER: LDRL-SL3-F06-E-7030-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	317.8	4.2			
FM	(30°-60°)	3421.7	45.0			
FH	(60°-80°)	3581.6	47.1			G2/5000
FVH	(80°-90°)	122.3	1.6			G2/225
BL	(0°-30°)	52.0	0.7	B0/110		
BM	(30°-60°)	72.4	1.0	B0/220		
BH	(60°-80°)	35.4	0.5	B0/110		G0/110
BVH	(80°-90°)	5.1	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G2

Type III Short





REPORT NUMBER: P163561

CATALOG NUMBER: LDRL-SL3-F06-E-7030-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	229.6	229.6	229.6	229.6	229.6	229.6	229.6	229.6	229.6	229.6	229.6
2.5°	289.6	288.2	282.3	282.3	273.5	267.6	260.4	253.1	253.1	251.6	250.1
5°	383.3	374.5	373.0	356.9	343.7	324.7	307.2	283.7	280.8	278.0	276.4
7.5°	487.0	485.6	472.5	453.5	427.2	392.0	356.9	318.8	313.1	310.1	304.3
10°	621.7	614.4	596.8	564.6	525.1	478.3	421.3	361.3	354.0	348.2	345.2
12.5°	750.3	737.2	727.0	686.0	636.2	567.6	498.8	412.5	406.6	399.3	387.6
15°	870.3	858.6	841.1	806.0	750.3	664.1	583.6	478.3	463.7	453.5	444.7
17.5°	964.0	956.6	936.2	896.6	836.7	760.7	664.1	545.6	533.9	520.7	504.6
20°	1053.2	1043.0	1010.7	956.6	892.3	833.8	759.1	633.4	617.2	601.1	583.6
22.5°	1138.0	1127.7	1075.1	985.9	917.1	892.3	866.0	732.8	708.0	694.8	677.2
25°	1256.5	1234.6	1152.6	1010.7	918.6	937.6	983.0	861.5	838.1	819.1	791.3
27.5°	1415.9	1386.7	1257.9	1047.3	924.4	987.3	1117.5	1018.1	993.2	971.3	940.5
30°	1595.9	1576.8	1423.2	1135.1	966.9	1060.5	1268.2	1217.0	1187.7	1161.4	1124.8
32.5°	1777.2	1750.9	1598.8	1301.8	1081.0	1202.4	1456.9	1448.1	1410.1	1385.2	1345.7
35°	1936.6	1923.5	1810.9	1575.3	1341.4	1451.0	1708.4	1718.7	1685.1	1658.8	1614.9
37.5°	2044.9	2044.9	2022.9	1869.4	1755.3	1837.2	2078.6	2080.0	2046.4	1986.4	1964.5
40°	2100.5	2116.6	2195.6	2224.8	2219.0	2324.3	2564.2	2537.9	2510.1	2479.3	2406.2
42.5°	2214.6	2229.2	2397.4	2599.3	2730.9	2869.9	3035.1	3026.3	2992.8	2937.1	2869.9
45°	2407.7	2426.7	2627.1	2947.4	3218.0	3415.5	3520.8	3479.8	3446.2	3393.5	3358.4
47.5°	2653.4	2689.9	2916.7	3313.1	3639.3	3965.4	4075.2	3967.0	3937.7	3896.8	3839.7
50°	2915.2	2950.3	3191.7	3645.1	4013.7	4402.8	4585.7	4402.8	4360.4	4347.3	4282.9
52.5°	3142.0	3171.2	3403.7	3901.1	4300.5	4756.8	5023.0	4781.6	4751.0	4707.1	4660.2
55°	3276.5	3300.0	3517.8	4024.0	4495.0	5075.7	5445.8	5233.7	5188.3	5170.8	5103.5
57.5°	3321.9	3345.3	3541.3	4040.1	4600.3	5366.8	5959.1	5966.5	5912.4	5849.5	5829.0
60°	3321.9	3348.2	3513.5	4000.5	4702.7	5676.8	6643.7	7253.7	7136.6	7125.0	7050.4
62.5°	3184.3	3209.2	3376.0	3879.2	4840.2	6095.2	7597.4	8674.0	8640.4	8564.3	8441.4
65°	2886.0	2900.6	3064.4	3569.0	4787.5	6479.9	8423.9	9618.9	9564.8	9415.6	9257.7
66°	2751.4	2763.1	2916.7	3392.1	4614.9	6532.6	8570.2	9737.4	9648.2	9522.4	9344.0
67.5°	2556.9	2577.3	2685.6	3063.0	4201.0	6349.7	8478.0	9654.0	9576.5	9424.4	9245.9
70°	1707.0	1692.4	2074.1	2350.7	3200.4	5173.7	7606.2	8668.2	8669.6	8598.0	8526.3
72.5°	810.3	819.1	930.3	1446.7	2094.6	3456.4	6054.2	6918.8	7018.2	6889.4	6800.2
75°	582.1	595.4	662.6	885.0	1249.2	2074.1	3924.5	4838.7	4841.6	4613.4	4410.1
77.5°	169.6	177.0	248.6	545.6	936.2	1399.8	2254.1	2689.9	2627.1	2463.2	2309.7
80°	70.2	70.2	73.1	174.1	375.9	950.8	1576.8	2071.3	2063.9	2001.0	1910.3
82.5°	26.3	27.8	35.1	71.7	89.2	234.1	1051.7	1797.7	1793.3	1704.1	1639.8
85°	2.9	2.9	8.8	30.7	33.7	43.9	210.6	792.8	788.4	792.8	694.8
87.5°	0.0	0.0	1.4	2.9	4.3	5.9	8.8	30.7	33.7	32.2	29.2
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: P163561

CATALOG NUMBER: LDRL-SL3-F06-E-7030-HSS

CANDELA DISTRIBUTION (continued):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	229.6	229.6	229.6	229.6	229.6	229.6	229.6	229.6	229.6	229.6	229.6
2.5°	250.1	247.2	247.2	245.7	245.7	245.7	244.3	242.8	242.8	241.3	239.9
5°	273.5	270.6	269.2	266.2	264.7	263.3	260.4	258.9	256.0	254.5	253.1
7.5°	301.3	295.5	294.0	289.6	285.2	282.3	279.4	275.0	272.1	266.2	264.7
10°	336.4	329.1	323.3	317.4	313.1	305.7	301.3	295.5	289.6	285.2	280.8
12.5°	381.7	371.5	362.7	356.9	346.6	337.8	329.1	324.7	313.1	307.2	299.8
15°	431.5	419.8	409.6	397.8	390.5	375.9	364.2	351.1	345.2	335.0	323.3
17.5°	495.8	476.8	460.7	449.0	434.4	419.8	406.6	393.5	375.9	364.2	349.6
20°	564.6	548.5	526.6	506.1	488.6	471.0	451.9	434.4	418.4	399.3	381.7
22.5°	652.4	629.0	602.7	582.1	558.8	539.7	513.4	490.0	463.7	438.8	418.4
25°	763.6	732.8	708.0	678.7	650.9	621.7	589.5	560.2	526.6	503.2	468.0
27.5°	901.1	871.8	838.1	800.1	772.3	728.4	686.0	649.5	609.9	573.4	533.9
30°	1076.6	1034.2	999.1	962.5	906.9	864.4	814.8	765.0	710.9	674.3	614.4
32.5°	1287.2	1241.8	1189.2	1136.5	1085.4	1025.4	964.0	902.5	842.5	775.2	713.8
35°	1544.7	1490.6	1430.6	1373.5	1294.5	1230.2	1152.6	1067.8	1000.5	923.0	845.4
37.5°	1885.5	1796.2	1743.5	1683.6	1576.8	1489.0	1402.8	1317.9	1199.5	1117.5	1007.8
40°	2312.6	2259.9	2173.6	2077.0	1980.5	1865.0	1748.0	1635.3	1497.8	1383.8	1256.5
42.5°	2814.3	2736.8	2649.1	2510.1	2412.1	2276.0	2142.9	1993.7	1825.5	1679.2	1530.0
45°	3285.3	3193.1	3125.9	2986.9	2884.5	2723.6	2562.7	2404.8	2210.2	2021.5	1848.9
47.5°	3794.3	3718.2	3607.1	3494.5	3390.6	3209.2	3035.1	2843.6	2638.7	2415.0	2191.1
50°	4241.9	4181.9	4105.9	3969.9	3854.3	3702.1	3497.4	3288.2	3029.3	2807.0	2552.5
52.5°	4622.2	4575.4	4468.7	4372.1	4268.3	4124.9	3942.1	3741.7	3462.3	3218.0	2928.4
55°	5071.3	5037.6	4944.1	4884.1	4791.9	4654.4	4483.2	4297.5	4002.1	3735.8	3408.2
57.5°	5807.0	5780.7	5698.8	5674.0	5583.3	5463.3	5252.7	5053.7	4708.5	4377.9	4003.5
60°	7025.5	6972.9	6852.9	6791.5	6599.8	6439.0	6165.4	5891.9	5475.0	5053.7	4603.2
62.5°	8330.2	8182.5	7954.3	7758.3	7486.3	7206.9	6841.2	6422.8	5934.3	5434.1	4916.3
65°	9033.8	8782.3	8494.1	8182.5	7830.0	7418.9	6958.2	6456.5	5931.4	5403.3	4856.3
66°	9114.2	8830.5	8524.8	8178.1	7786.1	7348.7	6880.7	6354.1	5808.5	5293.7	4746.5
67.5°	9013.4	8716.4	8393.1	8008.5	7584.2	7130.8	6639.4	6092.2	5567.2	5044.9	4512.6
70°	8306.9	8011.4	7723.2	7318.0	6866.1	6409.7	5944.6	5333.1	4835.8	4356.0	3882.1
72.5°	6633.5	6433.1	6147.9	5801.2	5360.9	4825.5	4437.9	3890.9	3459.4	2994.2	2627.1
75°	4145.4	3863.1	3510.6	3068.8	2732.4	2298.0	2071.3	1655.8	1410.1	1195.0	987.3
77.5°	2119.5	1907.4	1660.2	1411.6	1173.2	936.2	724.0	511.9	345.2	239.9	178.4
80°	1750.9	1563.7	1358.9	1132.2	921.5	715.2	514.9	351.1	223.8	146.3	114.1
82.5°	1446.7	1288.7	1105.8	895.2	712.3	561.7	390.5	254.5	158.0	102.4	80.4
85°	615.8	558.8	431.5	342.3	257.4	190.2	133.1	89.2	62.9	51.2	46.8
87.5°	26.3	29.2	27.8	21.9	16.1	16.1	14.7	11.7	11.7	11.7	11.7
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: P163561

CATALOG NUMBER: LDRL-SL3-F06-E-7030-HSS

CANDELA DISTRIBUTION (continued):

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	229.6	229.6	229.6	229.6	229.6	229.6	229.6	229.6	229.6	229.6	229.6
2.5°	239.9	238.4	237.0	237.0	235.5	234.1	225.3	218.0	209.2	203.3	197.4
5°	250.1	248.6	245.7	244.3	241.3	239.9	220.9	204.8	191.6	181.4	174.1
7.5°	260.4	258.9	254.5	250.1	248.6	245.7	215.0	194.5	177.0	165.3	158.0
10°	273.5	269.2	264.7	258.9	254.5	250.1	209.2	182.9	163.9	153.5	146.3
12.5°	292.5	285.2	278.0	270.6	264.7	257.4	206.2	172.6	153.5	141.9	134.5
15°	314.5	304.3	295.5	286.7	276.4	269.2	200.4	163.9	144.8	133.1	124.3
17.5°	335.0	323.3	310.1	297.0	286.7	276.4	194.5	155.1	136.0	124.3	115.5
20°	364.2	346.6	330.6	314.5	299.8	286.7	185.8	146.3	128.8	115.5	106.8
22.5°	396.4	375.9	355.4	333.5	314.5	297.0	178.4	139.0	121.4	108.2	98.0
25°	437.4	412.5	384.7	356.9	335.0	311.5	171.1	131.6	114.1	100.9	90.7
27.5°	494.4	459.3	428.6	393.5	359.8	333.5	165.3	125.8	106.8	93.6	83.3
30°	571.9	520.7	472.5	434.4	394.9	356.9	159.4	118.4	100.9	86.3	74.6
32.5°	658.2	598.2	542.7	485.6	435.9	392.0	153.5	112.6	93.6	79.0	68.8
35°	765.0	688.9	614.4	548.5	488.6	430.0	147.8	106.8	87.8	71.7	61.4
37.5°	918.6	823.5	725.6	640.7	563.1	485.6	143.3	100.9	80.4	64.3	54.1
40°	1129.3	1006.4	886.4	770.9	669.9	573.4	137.5	95.1	74.6	58.5	48.2
42.5°	1357.5	1208.3	1050.3	920.1	781.1	659.7	131.6	89.2	68.8	52.7	42.4
45°	1641.2	1455.4	1263.8	1086.8	917.1	760.7	125.8	83.3	61.4	46.8	36.6
47.5°	1951.3	1714.3	1497.8	1275.5	1073.6	886.4	118.4	79.0	55.6	41.0	32.2
50°	2270.1	2020.0	1746.5	1493.4	1253.6	1012.2	111.2	71.7	49.8	36.6	26.3
52.5°	2613.9	2318.4	2039.0	1724.5	1445.2	1177.5	103.9	65.8	45.3	32.2	21.9
55°	3051.2	2720.7	2393.0	2040.5	1704.1	1369.1	96.5	58.5	39.4	27.8	17.6
57.5°	3601.3	3209.2	2807.0	2409.1	2001.0	1620.7	90.7	51.2	33.7	23.4	14.7
60°	4120.5	3662.7	3175.5	2717.7	2257.0	1813.7	81.9	45.3	29.2	19.0	14.7
62.5°	4389.7	3867.4	3342.3	2837.7	2346.2	1882.5	73.1	38.0	24.9	16.1	13.1
65°	4323.8	3791.4	3282.4	2773.4	2292.1	1838.6	64.3	33.7	21.9	14.7	13.1
66°	4228.7	3702.1	3190.2	2706.1	2246.8	1791.9	60.0	32.2	20.4	14.7	11.7
67.5°	4021.1	3512.0	3023.5	2573.0	2122.5	1702.6	54.1	29.2	19.0	13.1	11.7
70°	3434.5	2972.2	2581.7	2180.9	1813.7	1434.9	43.9	24.9	16.1	11.7	11.7
72.5°	2273.1	1958.6	1698.2	1461.2	1221.4	947.9	36.6	20.4	13.1	11.7	10.2
75°	857.2	775.2	665.6	598.2	522.2	457.8	29.2	13.1	10.2	10.2	10.2
77.5°	152.1	140.4	124.3	114.1	105.3	96.5	23.4	8.8	8.8	10.2	10.2
80°	102.4	95.1	86.3	79.0	73.1	65.8	16.1	7.3	8.8	8.8	10.2
82.5°	73.1	68.8	64.3	58.5	54.1	48.2	10.2	7.3	8.8	8.8	8.8
85°	43.9	41.0	38.0	35.1	30.7	29.2	7.3	7.3	7.3	8.8	8.8
87.5°	11.7	10.2	11.7	11.7	8.8	10.2	5.9	5.9	5.9	7.3	7.3
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: P163561

CATALOG NUMBER: LDRL-SL3-F06-E-7030-HSS

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	229.6	229.6	229.6	229.6	229.6
2.5°	194.5	194.5	191.6	196.0	196.0
5°	168.2	168.2	166.8	168.2	168.2
7.5°	153.5	152.1	152.1	152.1	153.5
10°	140.4	139.0	139.0	139.0	139.0
12.5°	128.8	127.2	125.8	127.2	127.2
15°	118.4	115.5	115.5	115.5	115.5
17.5°	109.7	106.8	105.3	105.3	105.3
20°	100.9	96.5	96.5	96.5	96.5
22.5°	92.1	87.8	87.8	87.8	87.8
25°	83.3	79.0	79.0	79.0	79.0
27.5°	76.1	71.7	71.7	71.7	71.7
30°	67.3	64.3	64.3	65.8	64.3
32.5°	61.4	57.0	57.0	58.5	58.5
35°	54.1	51.2	51.2	51.2	51.2
37.5°	46.8	43.9	43.9	43.9	43.9
40°	41.0	38.0	36.6	38.0	38.0
42.5°	35.1	32.2	30.7	30.7	30.7
45°	30.7	26.3	24.9	26.3	26.3
47.5°	24.9	21.9	21.9	23.4	23.4
50°	19.0	19.0	20.4	23.4	23.4
52.5°	17.6	17.6	20.4	23.4	23.4
55°	16.1	17.6	20.4	21.9	23.4
57.5°	14.7	17.6	20.4	21.9	21.9
60°	14.7	16.1	19.0	21.9	21.9
62.5°	13.1	14.7	17.6	20.4	20.4
65°	13.1	14.7	17.6	20.4	20.4
66°	13.1	14.7	17.6	20.4	20.4
67.5°	13.1	14.7	17.6	20.4	20.4
70°	13.1	14.7	17.6	19.0	19.0
72.5°	11.7	13.1	16.1	19.0	19.0
75°	11.7	13.1	16.1	19.0	19.0
77.5°	11.7	13.1	16.1	19.0	19.0
80°	11.7	13.1	16.1	17.6	19.0
82.5°	10.2	13.1	14.7	17.6	17.6
85°	10.2	11.7	14.7	16.1	17.6
87.5°	8.8	10.2	11.7	14.7	14.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)