

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: P163505

Luminaire Tested: **LDRL-SL3-E01-E-8030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P163505
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-E01-E-8030-HSS
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (21) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1419.4 lumens
Efficiency: N/A
Efficacy: 57.5 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 1' x H: 0.1')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B0 - U0 - G1

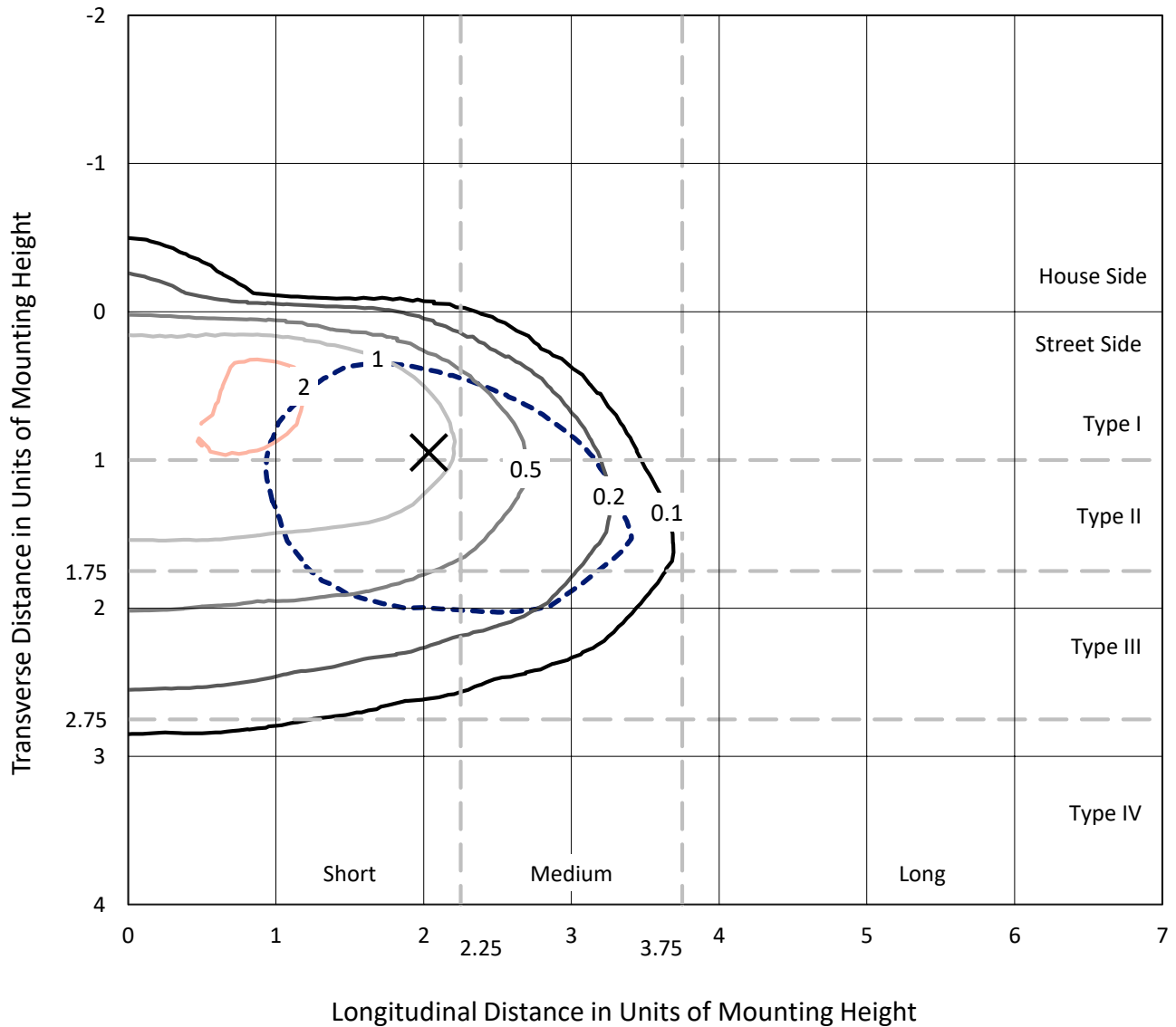
Input Watts (W): 24.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P163505
 CATALOG NUMBER: LDRL-SL3-E01-E-8030-HSS

Iso-Footcandle Lines of Horizontal Illumination

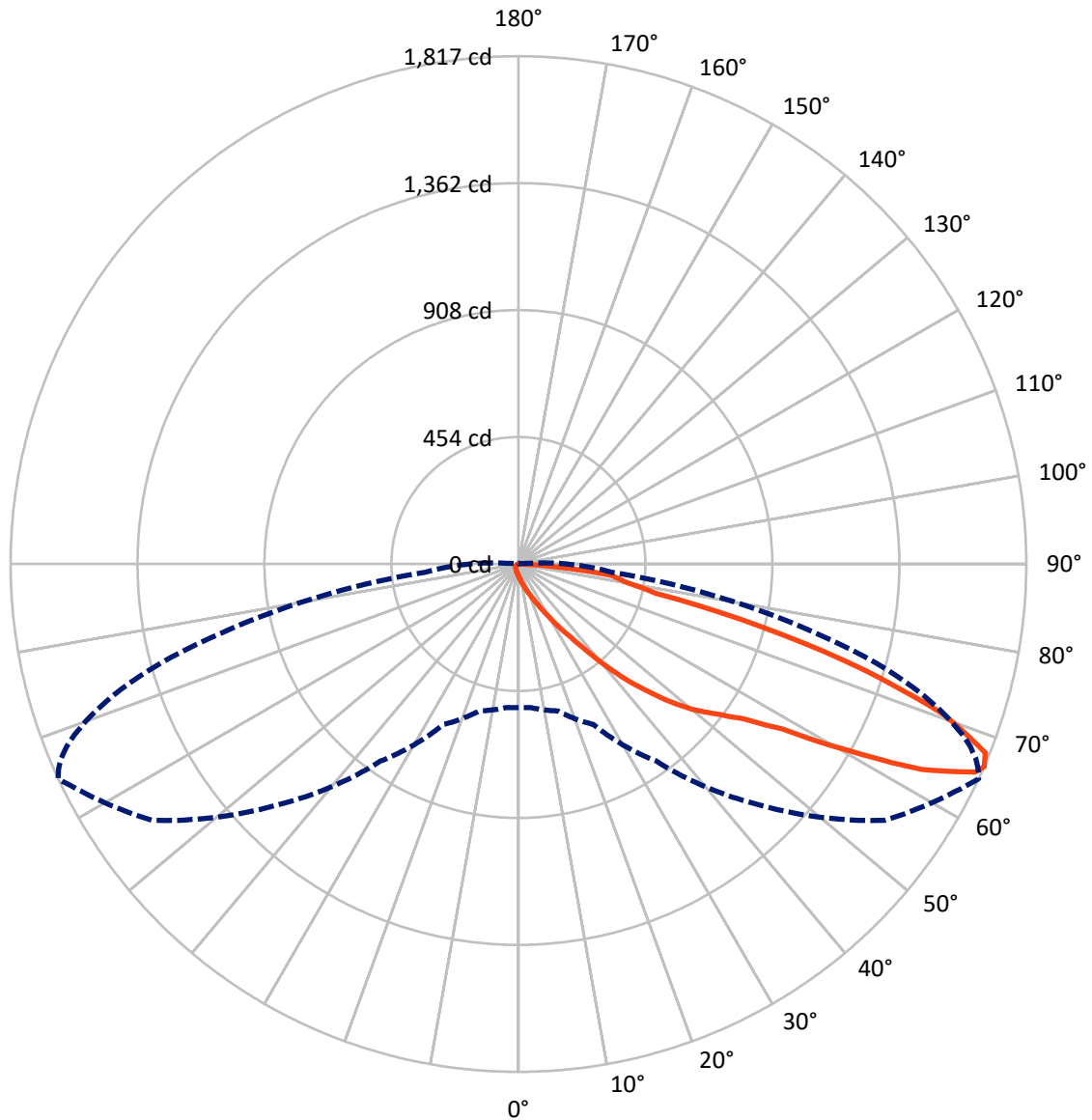
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.3 fc
 Type III - Short - Non-Cutoff

REPORT NUMBER: P163505
CATALOG NUMBER: LDRL-SL3-E01-E-8030-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P163505

CATALOG NUMBER: LDRL-SL3-E01-E-8030-HSS

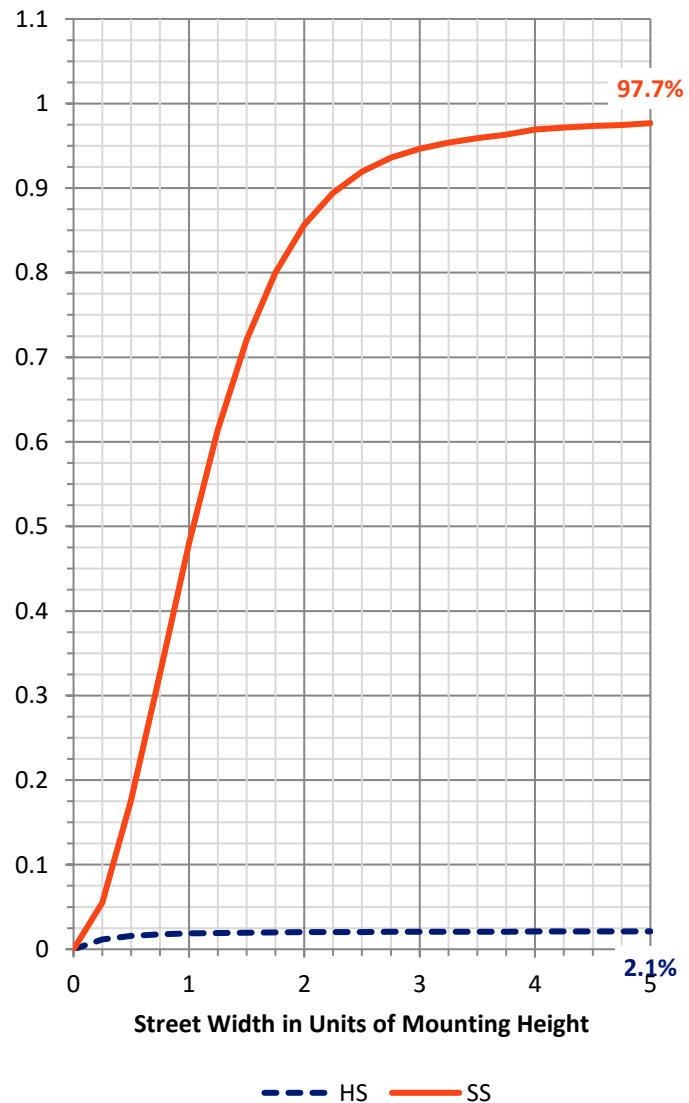
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	30.7	0.0	30.7
	% Fixture	2.2	0.0	2.2
Street Side	Lumens	1388.7	0.0	1388.7
	% Fixture	97.8	0.0	97.8
Total	Lumens	1419.4	0.0	1419.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4.8	0.3
10°-20°	20.3	1.4
20°-30°	43.9	3.1
30°-40°	93.7	6.6
40°-50°	207.1	14.6
50°-60°	351.0	24.7
60°-70°	468.4	33.0
70°-80°	206.3	14.5
80°-90°	23.8	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°	1419.4	100.0
0°-180°	1419.4	100.0



REPORT NUMBER: P163505

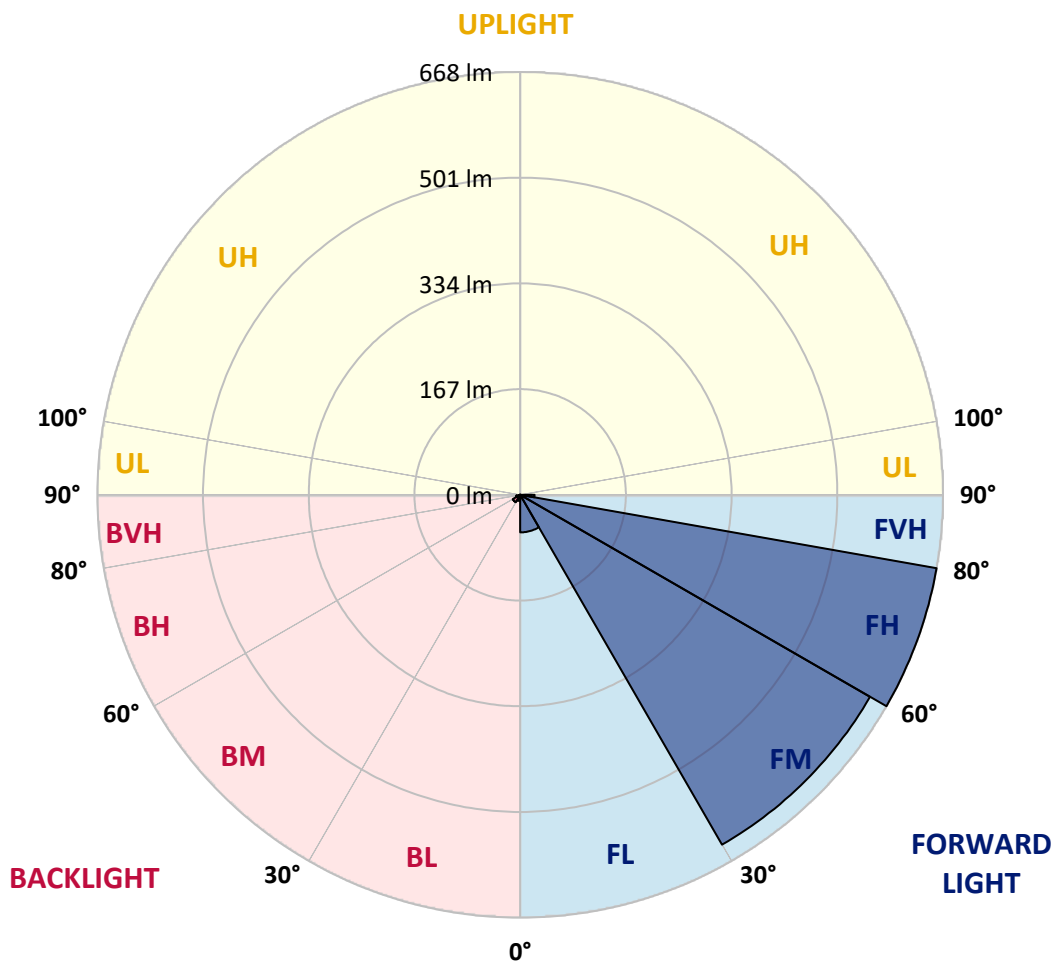
CATALOG NUMBER: LDRL-SL3-E01-E-8030-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	59.3	4.2			
FM	(30°-60°)	638.4	45.0			
FH	(60°-80°)	668.2	47.1			G1/1800
FVH	(80°-90°)	22.8	1.6			G1/100
BL	(0°-30°)	9.7	0.7	B0/110		
BM	(30°-60°)	13.5	1.0	B0/220		
BH	(60°-80°)	6.6	0.5	B0/110		G0/110
BVH	(80°-90°)	0.9	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-G1

Type III Short



REPORT NUMBER: P163505

CATALOG NUMBER: LDRL-SL3-E01-E-8030-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8
2.5°	54.0	53.8	52.7	52.7	51.0	49.9	48.6	47.2	47.2	46.9	46.7
5°	71.5	69.9	69.6	66.6	64.1	60.6	57.3	52.9	52.4	51.9	51.6
7.5°	90.9	90.6	88.1	84.6	79.7	73.1	66.6	59.5	58.4	57.8	56.8
10°	116.0	114.6	111.3	105.3	98.0	89.2	78.6	67.4	66.0	65.0	64.4
12.5°	140.0	137.5	135.6	128.0	118.7	105.9	93.1	77.0	75.9	74.5	72.3
15°	162.4	160.2	156.9	150.4	140.0	123.9	108.9	89.2	86.5	84.6	83.0
17.5°	179.8	178.5	174.7	167.3	156.1	141.9	123.9	101.8	99.6	97.1	94.1
20°	196.5	194.6	188.6	178.5	166.5	155.5	141.6	118.2	115.2	112.1	108.9
22.5°	212.3	210.4	200.6	183.9	171.1	166.5	161.6	136.7	132.1	129.6	126.3
25°	234.4	230.3	215.0	188.6	171.4	174.9	183.4	160.7	156.4	152.8	147.6
27.5°	264.2	258.7	234.7	195.4	172.5	184.2	208.5	189.9	185.3	181.2	175.5
30°	297.7	294.2	265.5	211.8	180.4	197.8	236.6	227.1	221.6	216.7	209.8
32.5°	331.6	326.6	298.3	242.9	201.7	224.3	271.8	270.2	263.1	258.4	251.1
35°	361.3	358.8	337.8	293.9	250.2	270.7	318.7	320.6	314.4	309.5	301.3
37.5°	381.5	381.5	377.4	348.8	327.5	342.7	387.8	388.1	381.8	370.6	366.5
40°	391.9	394.9	409.6	415.1	414.0	433.6	478.4	473.5	468.3	462.5	448.9
42.5°	413.2	415.9	447.3	484.9	509.5	535.4	566.2	564.6	558.3	548.0	535.4
45°	449.2	452.7	490.1	549.9	600.3	637.2	656.8	649.2	642.9	633.1	626.5
47.5°	495.0	501.8	544.1	618.1	678.9	739.8	760.3	740.1	734.6	727.0	716.3
50°	543.9	550.4	595.4	680.0	748.8	821.4	855.5	821.4	813.5	811.0	799.0
52.5°	586.2	591.6	635.0	727.8	802.3	887.4	937.1	892.1	886.3	878.2	869.4
55°	611.3	615.6	656.3	750.7	838.6	946.9	1016.0	976.4	967.9	964.7	952.1
57.5°	619.7	624.1	660.7	753.7	858.2	1001.2	1111.7	1113.1	1103.0	1091.3	1087.5
60°	619.7	624.6	655.5	746.3	877.3	1059.1	1239.5	1353.3	1331.4	1329.2	1315.3
62.5°	594.1	598.7	629.8	723.7	903.0	1137.1	1417.4	1618.2	1612.0	1597.8	1574.8
65°	538.4	541.1	571.7	665.8	893.2	1208.9	1571.6	1794.5	1784.4	1756.6	1727.1
66°	513.3	515.5	544.1	632.8	861.0	1218.7	1598.9	1816.6	1800.0	1776.5	1743.2
67.5°	477.0	480.8	501.0	571.4	783.7	1184.6	1581.7	1801.1	1786.6	1758.2	1724.9
70°	318.5	315.7	387.0	438.5	597.1	965.2	1419.0	1617.1	1617.4	1604.0	1590.7
72.5°	151.2	152.8	173.6	269.9	390.8	644.8	1129.5	1290.8	1309.3	1285.3	1268.7
75°	108.6	111.1	123.6	165.1	233.0	387.0	732.2	902.7	903.3	860.7	822.8
77.5°	31.6	33.0	46.4	101.8	174.7	261.1	420.5	501.8	490.1	459.5	430.9
80°	13.1	13.1	13.6	32.5	70.1	177.4	294.2	386.4	385.0	373.3	356.4
82.5°	4.9	5.2	6.5	13.4	16.6	43.7	196.2	335.4	334.6	317.9	305.9
85°	0.5	0.5	1.6	5.7	6.3	8.2	39.3	147.9	147.1	147.9	129.6
87.5°	0.0	0.0	0.3	0.5	0.8	1.1	1.6	5.7	6.3	6.0	5.5
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: P163505

CATALOG NUMBER: LDRL-SL3-E01-E-8030-HSS

CANDELA DISTRIBUTION (continued):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8
2.5°	46.7	46.1	46.1	45.8	45.8	45.8	45.6	45.3	45.3	45.0	44.7
5°	51.0	50.5	50.2	49.7	49.4	49.1	48.6	48.3	47.8	47.5	47.2
7.5°	56.2	55.1	54.8	54.0	53.2	52.7	52.1	51.3	50.8	49.7	49.4
10°	62.8	61.4	60.3	59.2	58.4	57.0	56.2	55.1	54.0	53.2	52.4
12.5°	71.2	69.3	67.7	66.6	64.7	63.0	61.4	60.6	58.4	57.3	55.9
15°	80.5	78.3	76.4	74.2	72.9	70.1	67.9	65.5	64.4	62.5	60.3
17.5°	92.5	89.0	86.0	83.8	81.0	78.3	75.9	73.4	70.1	67.9	65.2
20°	105.3	102.3	98.2	94.4	91.2	87.9	84.3	81.0	78.1	74.5	71.2
22.5°	121.7	117.3	112.4	108.6	104.2	100.7	95.8	91.4	86.5	81.9	78.1
25°	142.4	136.7	132.1	126.6	121.4	116.0	110.0	104.5	98.2	93.9	87.3
27.5°	168.1	162.6	156.4	149.3	144.1	135.9	128.0	121.2	113.8	107.0	99.6
30°	200.9	192.9	186.4	179.6	169.2	161.3	152.0	142.7	132.6	125.8	114.6
32.5°	240.1	231.7	221.9	212.0	202.5	191.3	179.8	168.4	157.2	144.6	133.2
35°	288.2	278.1	266.9	256.2	241.5	229.5	215.0	199.2	186.7	172.2	157.7
37.5°	351.8	335.1	325.3	314.1	294.2	277.8	261.7	245.9	223.8	208.5	188.0
40°	431.4	421.6	405.5	387.5	369.5	347.9	326.1	305.1	279.4	258.2	234.4
42.5°	525.0	510.6	494.2	468.3	450.0	424.6	399.8	371.9	340.6	313.3	285.4
45°	612.9	595.7	583.2	557.2	538.1	508.1	478.1	448.6	412.3	377.1	344.9
47.5°	707.9	693.7	672.9	651.9	632.6	598.7	566.2	530.5	492.3	450.5	408.8
50°	791.4	780.2	766.0	740.6	719.1	690.7	652.5	613.4	565.2	523.7	476.2
52.5°	862.3	853.6	833.7	815.7	796.3	769.6	735.4	698.0	645.9	600.3	546.3
55°	946.1	939.8	922.4	911.2	894.0	868.3	836.4	801.7	746.6	697.0	635.8
57.5°	1083.4	1078.5	1063.2	1058.5	1041.6	1019.2	979.9	942.8	878.4	816.7	746.9
60°	1310.7	1300.9	1278.5	1267.0	1231.3	1201.3	1150.2	1099.2	1021.4	942.8	858.8
62.5°	1554.1	1526.5	1484.0	1447.4	1396.6	1344.5	1276.3	1198.2	1107.1	1013.8	917.2
65°	1685.3	1638.4	1584.7	1526.5	1460.8	1384.1	1298.1	1204.5	1106.6	1008.0	906.0
66°	1700.4	1647.4	1590.4	1525.7	1452.6	1371.0	1283.7	1185.4	1083.6	987.6	885.5
67.5°	1681.5	1626.1	1565.8	1494.1	1414.9	1330.3	1238.6	1136.6	1038.6	941.2	841.9
70°	1549.7	1494.6	1440.8	1365.3	1280.9	1195.8	1109.0	994.9	902.2	812.7	724.2
72.5°	1237.5	1200.2	1146.9	1082.3	1000.1	900.3	827.9	725.9	645.4	558.6	490.1
75°	773.4	720.7	654.9	572.5	509.8	428.7	386.4	308.9	263.1	222.9	184.2
77.5°	395.4	355.8	309.7	263.3	218.9	174.7	135.1	95.5	64.4	44.7	33.3
80°	326.6	291.7	253.5	211.2	171.9	133.4	96.1	65.5	41.7	27.3	21.3
82.5°	269.9	240.4	206.3	167.0	132.9	104.8	72.9	47.5	29.5	19.1	15.0
85°	114.9	104.2	80.5	63.9	48.0	35.5	24.8	16.6	11.7	9.6	8.7
87.5°	4.9	5.5	5.2	4.1	3.0	3.0	2.7	2.2	2.2	2.2	2.2
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: P163505

CATALOG NUMBER: LDRL-SL3-E01-E-8030-HSS

CANDELA DISTRIBUTION (continued):

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8
2.5°	44.7	44.5	44.2	44.2	43.9	43.7	42.0	40.7	39.0	37.9	36.8
5°	46.7	46.4	45.8	45.6	45.0	44.7	41.2	38.2	35.8	33.8	32.5
7.5°	48.6	48.3	47.5	46.7	46.4	45.8	40.1	36.3	33.0	30.8	29.5
10°	51.0	50.2	49.4	48.3	47.5	46.7	39.0	34.1	30.6	28.6	27.3
12.5°	54.6	53.2	51.9	50.5	49.4	48.0	38.5	32.2	28.6	26.5	25.1
15°	58.7	56.8	55.1	53.5	51.6	50.2	37.4	30.6	27.0	24.8	23.2
17.5°	62.5	60.3	57.8	55.4	53.5	51.6	36.3	28.9	25.4	23.2	21.6
20°	67.9	64.7	61.7	58.7	55.9	53.5	34.7	27.3	24.0	21.6	19.9
22.5°	74.0	70.1	66.3	62.2	58.7	55.4	33.3	25.9	22.7	20.2	18.3
25°	81.6	77.0	71.8	66.6	62.5	58.1	31.9	24.6	21.3	18.8	16.9
27.5°	92.2	85.7	80.0	73.4	67.1	62.2	30.8	23.5	19.9	17.5	15.5
30°	106.7	97.1	88.1	81.0	73.7	66.6	29.7	22.1	18.8	16.1	13.9
32.5°	122.8	111.6	101.2	90.6	81.3	73.1	28.6	21.0	17.5	14.7	12.8
35°	142.7	128.5	114.6	102.3	91.2	80.2	27.6	19.9	16.4	13.4	11.5
37.5°	171.4	153.6	135.4	119.5	105.1	90.6	26.7	18.8	15.0	12.0	10.1
40°	210.7	187.8	165.4	143.8	125.0	107.0	25.7	17.7	13.9	10.9	9.0
42.5°	253.2	225.4	195.9	171.7	145.7	123.1	24.6	16.6	12.8	9.8	7.9
45°	306.2	271.5	235.8	202.8	171.1	141.9	23.5	15.5	11.5	8.7	6.8
47.5°	364.0	319.8	279.4	238.0	200.3	165.4	22.1	14.7	10.4	7.6	6.0
50°	423.5	376.9	325.8	278.6	233.9	188.8	20.7	13.4	9.3	6.8	4.9
52.5°	487.7	432.5	380.4	321.7	269.6	219.7	19.4	12.3	8.5	6.0	4.1
55°	569.2	507.6	446.4	380.7	317.9	255.4	18.0	10.9	7.4	5.2	3.3
57.5°	671.9	598.7	523.7	449.4	373.3	302.4	16.9	9.6	6.3	4.4	2.7
60°	768.7	683.3	592.4	507.0	421.1	338.4	15.3	8.5	5.5	3.5	2.7
62.5°	818.9	721.5	623.5	529.4	437.7	351.2	13.6	7.1	4.6	3.0	2.4
65°	806.7	707.3	612.4	517.4	427.6	343.0	12.0	6.3	4.1	2.7	2.4
66°	788.9	690.7	595.2	504.8	419.2	334.3	11.2	6.0	3.8	2.7	2.2
67.5°	750.2	655.2	564.1	480.0	396.0	317.6	10.1	5.5	3.5	2.4	2.2
70°	640.7	554.5	481.6	406.9	338.4	267.7	8.2	4.6	3.0	2.2	2.2
72.5°	424.1	365.4	316.8	272.6	227.9	176.8	6.8	3.8	2.4	2.2	1.9
75°	159.9	144.6	124.2	111.6	97.4	85.4	5.5	2.4	1.9	1.9	1.9
77.5°	28.4	26.2	23.2	21.3	19.6	18.0	4.4	1.6	1.6	1.9	1.9
80°	19.1	17.7	16.1	14.7	13.6	12.3	3.0	1.4	1.6	1.6	1.9
82.5°	13.6	12.8	12.0	10.9	10.1	9.0	1.9	1.4	1.6	1.6	1.6
85°	8.2	7.6	7.1	6.5	5.7	5.5	1.4	1.4	1.4	1.6	1.6
87.5°	2.2	1.9	2.2	2.2	1.6	1.9	1.1	1.1	1.1	1.4	1.4
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: P163505

CATALOG NUMBER: LDRL-SL3-E01-E-8030-HSS

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	42.8	42.8	42.8	42.8	42.8
2.5°	36.3	36.3	35.8	36.6	36.6
5°	31.4	31.4	31.1	31.4	31.4
7.5°	28.6	28.4	28.4	28.4	28.6
10°	26.2	25.9	25.9	25.9	25.9
12.5°	24.0	23.7	23.5	23.7	23.7
15°	22.1	21.6	21.6	21.6	21.6
17.5°	20.5	19.9	19.6	19.6	19.6
20°	18.8	18.0	18.0	18.0	18.0
22.5°	17.2	16.4	16.4	16.4	16.4
25°	15.5	14.7	14.7	14.7	14.7
27.5°	14.2	13.4	13.4	13.4	13.4
30°	12.6	12.0	12.0	12.3	12.0
32.5°	11.5	10.6	10.6	10.9	10.9
35°	10.1	9.6	9.6	9.6	9.6
37.5°	8.7	8.2	8.2	8.2	8.2
40°	7.6	7.1	6.8	7.1	7.1
42.5°	6.5	6.0	5.7	5.7	5.7
45°	5.7	4.9	4.6	4.9	4.9
47.5°	4.6	4.1	4.1	4.4	4.4
50°	3.5	3.5	3.8	4.4	4.4
52.5°	3.3	3.3	3.8	4.4	4.4
55°	3.0	3.3	3.8	4.1	4.4
57.5°	2.7	3.3	3.8	4.1	4.1
60°	2.7	3.0	3.5	4.1	4.1
62.5°	2.4	2.7	3.3	3.8	3.8
65°	2.4	2.7	3.3	3.8	3.8
66°	2.4	2.7	3.3	3.8	3.8
67.5°	2.4	2.7	3.3	3.8	3.8
70°	2.4	2.7	3.3	3.5	3.5
72.5°	2.2	2.4	3.0	3.5	3.5
75°	2.2	2.4	3.0	3.5	3.5
77.5°	2.2	2.4	3.0	3.5	3.5
80°	2.2	2.4	3.0	3.3	3.5
82.5°	1.9	2.4	2.7	3.3	3.3
85°	1.9	2.2	2.7	3.0	3.3
87.5°	1.6	1.9	2.2	2.7	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)