

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: P163551

Luminaire Tested: **LDRL-SL3-F05-E-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P163551
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-F05-E-7030-HSS
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (35) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6340.2 lumens
Efficiency: N/A
Efficacy: 47.6 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.83' x L: 1' x H: 0.1')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B0 - U0 - G2

Input Watts (W): 133.3
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

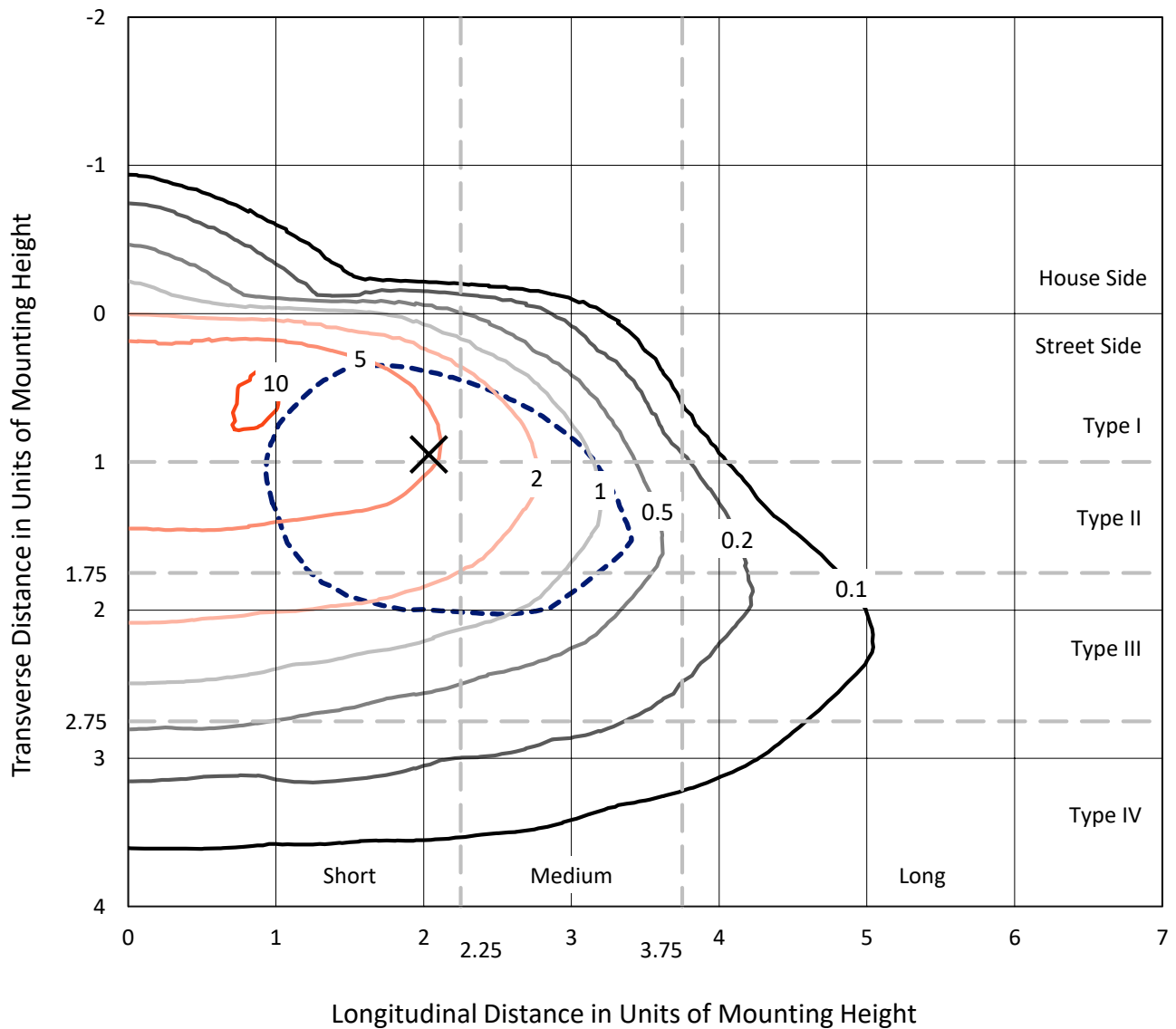


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Iso-Footcandle Lines of Horizontal Illumination

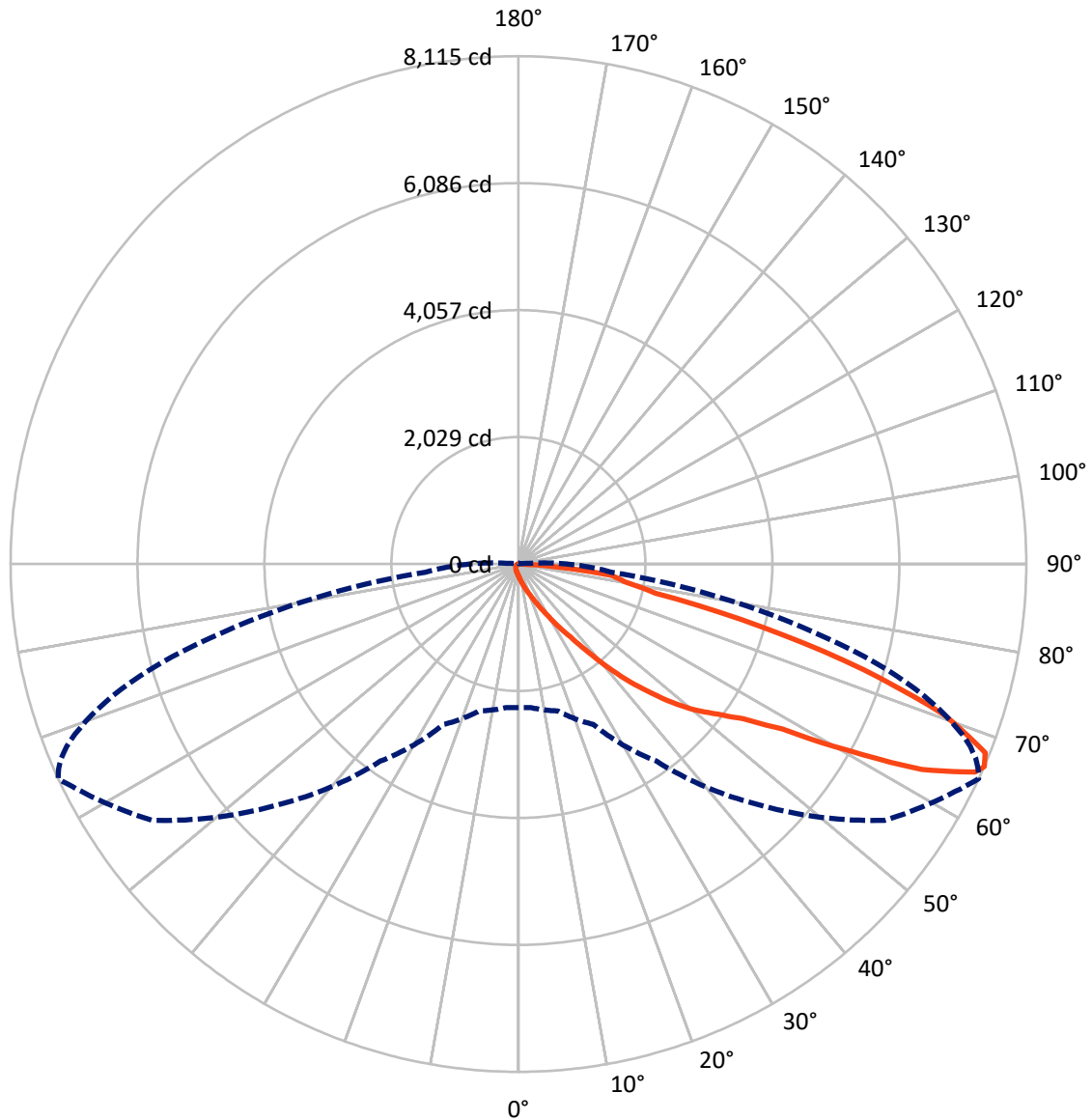
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.5 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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

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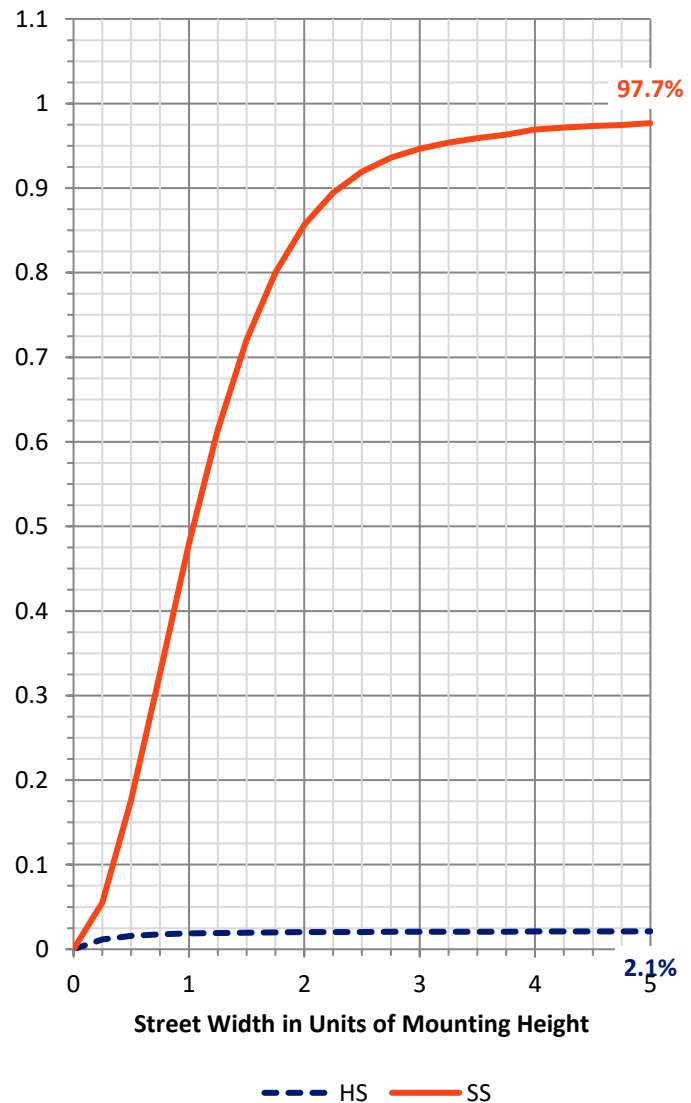
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	137.3	0.0	137.3
	% Fixture	2.2	0.0	2.2
Street Side	Lumens	6202.9	0.0	6202.9
	% Fixture	97.8	0.0	97.8
Total	Lumens	6340.2	0.0	6340.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.4	0.3
10°-20°	90.8	1.4
20°-30°	195.9	3.1
30°-40°	418.4	6.6
40°-50°	925.3	14.6
50°-60°	1568.1	24.7
60°-70°	2092.4	33.0
70°-80°	921.7	14.5
80°-90°	106.2	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°	6340.2	100.0
0°-180°	6340.2	100.0



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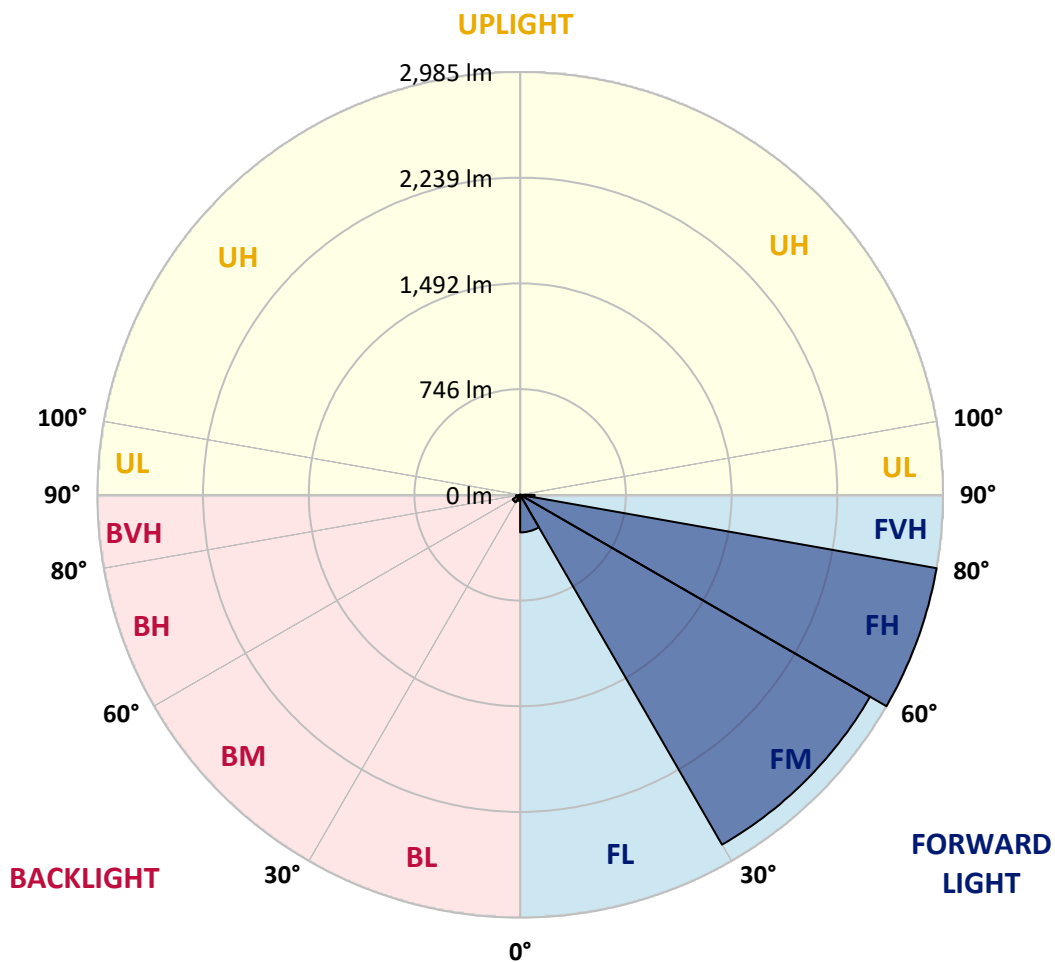
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	264.8	4.2			
FM	(30°-60°)	2851.4	45.0			
FH	(60°-80°)	2984.7	47.1			G2/5000
FVH	(80°-90°)	101.9	1.6			G2/225
BL	(0°-30°)	43.3	0.7	B0/110		
BM	(30°-60°)	60.3	1.0	B0/220		
BH	(60°-80°)	29.4	0.5	B0/110		G0/110
BVH	(80°-90°)	4.2	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	191.4	191.4	191.4	191.4	191.4	191.4	191.4	191.4	191.4	191.4	191.4
2.5°	241.4	240.1	235.2	235.2	227.9	223.0	217.0	210.9	210.9	209.7	208.4
5°	319.4	312.1	310.8	297.5	286.4	270.6	256.0	236.5	234.0	231.6	230.3
7.5°	405.9	404.7	393.7	377.9	356.0	326.7	297.5	265.7	260.9	258.4	253.6
10°	518.1	512.0	497.3	470.5	437.6	398.6	351.1	301.1	295.0	290.1	287.6
12.5°	625.3	614.4	605.8	571.7	530.2	473.0	415.7	343.7	338.8	332.7	323.0
15°	725.3	715.5	700.9	671.7	625.3	553.4	486.3	398.6	386.4	377.9	370.6
17.5°	803.3	797.2	780.2	747.2	697.2	633.9	553.4	454.7	444.9	433.9	420.5
20°	877.6	869.1	842.3	797.2	743.6	694.8	632.6	527.8	514.4	501.0	486.3
22.5°	948.4	939.8	895.9	821.6	764.2	743.6	721.6	610.7	590.0	579.0	564.4
25°	1047.1	1028.8	960.5	842.3	765.5	781.4	819.1	718.0	698.4	682.6	659.4
27.5°	1179.9	1155.6	1048.3	872.7	770.4	822.8	931.3	848.4	827.7	809.4	783.8
30°	1329.9	1314.0	1186.0	945.9	805.7	883.8	1056.8	1014.2	989.8	967.8	937.4
32.5°	1481.0	1459.1	1332.3	1084.8	900.8	1002.0	1214.1	1206.8	1175.1	1154.4	1121.4
35°	1613.8	1602.9	1509.0	1312.8	1117.8	1209.2	1423.7	1432.3	1404.2	1382.3	1345.7
37.5°	1704.1	1704.1	1685.8	1557.8	1462.7	1531.0	1732.1	1733.4	1705.3	1655.3	1637.1
40°	1750.4	1763.8	1829.6	1854.0	1849.2	1936.9	2136.8	2114.9	2091.7	2066.1	2005.2
42.5°	1845.5	1857.7	1997.9	2166.1	2275.8	2391.6	2529.3	2522.0	2494.0	2447.6	2391.6
45°	2006.4	2022.2	2189.2	2456.1	2681.7	2846.2	2934.0	2899.9	2871.8	2827.9	2798.7
47.5°	2211.2	2241.6	2430.6	2760.9	3032.7	3304.5	3396.0	3305.8	3281.4	3247.3	3199.7
50°	2429.4	2458.6	2659.7	3037.6	3344.8	3669.0	3821.4	3669.0	3633.6	3622.7	3569.1
52.5°	2618.3	2642.7	2836.4	3250.9	3583.7	3964.0	4185.9	3984.7	3959.1	3922.6	3883.5
55°	2730.4	2750.0	2931.5	3353.3	3745.8	4229.8	4538.1	4361.4	4323.6	4309.0	4252.9
57.5°	2768.2	2787.7	2951.1	3366.7	3833.6	4472.3	4966.0	4972.1	4927.0	4874.6	4857.5
60°	2768.2	2790.2	2927.9	3333.8	3918.9	4730.7	5536.4	6044.8	5947.2	5937.5	5875.3
62.5°	2653.6	2674.3	2813.3	3232.7	4033.5	5079.4	6331.2	7228.3	7200.3	7136.9	7034.5
65°	2405.0	2417.2	2553.7	2974.2	3989.6	5400.0	7019.9	8015.8	7970.7	7846.4	7714.7
66°	2292.8	2302.6	2430.6	2826.7	3845.7	5443.8	7141.8	8114.5	8040.1	7935.3	7786.6
67.5°	2130.7	2147.8	2238.0	2552.5	3500.8	5291.5	7065.0	8045.0	7980.4	7853.7	7704.9
70°	1422.5	1410.3	1728.5	1958.9	2667.0	4311.4	6338.5	7223.5	7224.7	7165.0	7105.3
72.5°	675.3	682.6	775.3	1205.6	1745.5	2880.3	5045.2	5765.6	5848.5	5741.2	5666.9
75°	485.1	496.1	552.1	737.5	1041.0	1728.5	3270.4	4032.3	4034.7	3844.5	3675.1
77.5°	141.4	147.5	207.2	454.7	780.2	1166.5	1878.4	2241.6	2189.2	2052.7	1924.7
80°	58.5	58.5	60.9	145.1	313.3	792.3	1314.0	1726.0	1719.9	1667.5	1591.9
82.5°	21.9	23.1	29.3	59.7	74.3	195.1	876.4	1498.1	1494.4	1420.1	1366.5
85°	2.4	2.4	7.3	25.6	28.0	36.6	175.5	660.6	657.0	660.6	579.0
87.5°	0.0	0.0	1.2	2.4	3.6	4.9	7.3	25.6	28.0	26.8	24.4
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):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	191.4	191.4	191.4	191.4	191.4	191.4	191.4	191.4	191.4	191.4	191.4
2.5°	208.4	206.0	206.0	204.8	204.8	204.8	203.6	202.4	202.4	201.1	199.9
5°	227.9	225.5	224.3	221.8	220.6	219.4	217.0	215.7	213.3	212.1	210.9
7.5°	251.1	246.3	245.0	241.4	237.7	235.2	232.8	229.1	226.7	221.8	220.6
10°	280.3	274.2	269.4	264.5	260.9	254.8	251.1	246.3	241.4	237.7	234.0
12.5°	318.1	309.6	302.3	297.5	288.9	281.5	274.2	270.6	260.9	256.0	249.9
15°	359.6	349.9	341.3	331.5	325.4	313.3	303.5	292.5	287.6	279.1	269.4
17.5°	413.2	397.4	383.9	374.2	362.0	349.9	338.8	327.9	313.3	303.5	291.3
20°	470.5	457.1	438.8	421.8	407.2	392.5	376.6	362.0	348.6	332.7	318.1
22.5°	543.6	524.2	502.2	485.1	465.7	449.8	427.8	408.4	386.4	365.7	348.6
25°	636.3	610.7	590.0	565.6	542.4	518.1	491.2	466.9	438.8	419.3	390.0
27.5°	750.9	726.5	698.4	666.8	643.6	607.0	571.7	541.2	508.3	477.8	444.9
30°	897.2	861.8	832.6	802.1	755.7	720.4	679.0	637.5	592.4	562.0	512.0
32.5°	1072.7	1034.9	991.0	947.1	904.5	854.5	803.3	752.1	702.1	646.0	594.8
35°	1287.2	1242.1	1192.1	1144.6	1078.7	1025.1	960.5	889.9	833.8	769.1	704.5
37.5°	1571.2	1496.8	1452.9	1403.0	1314.0	1240.8	1169.0	1098.3	999.6	931.3	839.9
40°	1927.1	1883.2	1811.3	1730.9	1650.4	1554.1	1456.6	1362.8	1248.2	1153.2	1047.1
42.5°	2345.2	2280.7	2207.5	2091.7	2010.1	1896.7	1785.8	1661.4	1521.3	1399.3	1275.0
45°	2737.8	2660.9	2604.9	2489.1	2403.7	2269.7	2135.6	2004.0	1841.9	1684.6	1540.7
47.5°	3161.9	3098.5	3005.9	2912.1	2825.5	2674.3	2529.3	2369.7	2198.9	2012.5	1825.9
50°	3534.9	3485.0	3421.5	3308.2	3211.9	3085.1	2914.5	2740.2	2524.4	2339.2	2127.1
52.5°	3851.9	3812.9	3723.9	3643.4	3556.9	3437.5	3285.1	3118.1	2885.2	2681.7	2440.3
55°	4226.1	4198.0	4120.0	4070.1	3993.2	3878.7	3736.0	3581.2	3335.1	3113.2	2840.1
57.5°	4839.2	4817.3	4749.0	4728.3	4652.7	4552.8	4377.2	4211.4	3923.8	3648.3	3336.3
60°	5854.6	5810.7	5710.7	5659.6	5499.9	5365.8	5137.9	4909.9	4562.5	4211.4	3836.0
62.5°	6941.9	6818.7	6628.6	6465.3	6238.5	6005.7	5701.0	5352.4	4945.2	4528.4	4096.9
65°	7528.2	7318.6	7078.4	6818.7	6525.0	6182.4	5798.5	5380.4	4942.8	4502.8	4046.9
66°	7595.2	7358.8	7104.0	6815.1	6488.4	6123.9	5733.9	5295.1	4840.4	4411.4	3955.4
67.5°	7511.1	7263.7	6994.3	6673.7	6320.2	5942.4	5532.8	5076.9	4639.3	4204.1	3760.5
70°	6922.4	6676.2	6436.0	6098.4	5721.8	5341.4	4953.8	4444.3	4029.8	3630.0	3235.1
72.5°	5527.9	5360.9	5123.2	4834.3	4467.4	4021.3	3698.3	3242.4	2882.8	2495.2	2189.2
75°	3454.5	3219.3	2925.5	2557.3	2277.0	1915.0	1726.0	1379.8	1175.1	995.9	822.8
77.5°	1766.2	1589.5	1383.5	1176.3	977.6	780.2	603.3	426.6	287.6	199.9	148.7
80°	1459.1	1303.1	1132.4	943.5	767.9	596.0	429.1	292.5	186.5	121.9	95.1
82.5°	1205.6	1073.9	921.5	746.0	593.6	468.1	325.4	212.1	131.6	85.4	67.0
85°	513.2	465.7	359.6	285.2	214.5	158.5	110.9	74.3	52.4	42.7	39.0
87.5°	21.9	24.4	23.1	18.2	13.4	13.4	12.2	9.7	9.7	9.7	9.7
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):

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	191.4	191.4	191.4	191.4	191.4	191.4	191.4	191.4	191.4	191.4	191.4
2.5°	199.9	198.7	197.5	197.5	196.3	195.1	187.7	181.6	174.3	169.4	164.5
5°	208.4	207.2	204.8	203.6	201.1	199.9	184.0	170.6	159.7	151.2	145.1
7.5°	217.0	215.7	212.1	208.4	207.2	204.8	179.1	162.1	147.5	137.8	131.6
10°	227.9	224.3	220.6	215.7	212.1	208.4	174.3	152.4	136.5	128.0	121.9
12.5°	243.8	237.7	231.6	225.5	220.6	214.5	171.8	143.9	128.0	118.2	112.1
15°	262.1	253.6	246.3	238.9	230.3	224.3	167.0	136.5	120.6	110.9	103.6
17.5°	279.1	269.4	258.4	247.5	238.9	230.3	162.1	129.2	113.3	103.6	96.3
20°	303.5	288.9	275.5	262.1	249.9	238.9	154.8	121.9	107.3	96.3	89.0
22.5°	330.3	313.3	296.2	277.9	262.1	247.5	148.7	115.8	101.2	90.2	81.7
25°	364.5	343.7	320.6	297.5	279.1	259.6	142.6	109.7	95.1	84.1	75.6
27.5°	412.0	382.7	357.2	327.9	299.9	277.9	137.8	104.8	89.0	78.0	69.4
30°	476.6	433.9	393.7	362.0	329.1	297.5	132.9	98.7	84.1	71.9	62.1
32.5°	548.5	498.5	452.2	404.7	363.3	326.7	128.0	93.9	78.0	65.8	57.3
35°	637.5	574.1	512.0	457.1	407.2	358.4	123.1	89.0	73.1	59.7	51.2
37.5°	765.5	686.3	604.6	533.9	469.3	404.7	119.4	84.1	67.0	53.6	45.1
40°	941.1	838.7	738.7	642.4	558.3	477.8	114.6	79.2	62.1	48.8	40.2
42.5°	1131.2	1006.9	875.2	766.7	650.9	549.7	109.7	74.3	57.3	43.9	35.4
45°	1367.7	1212.9	1053.2	905.7	764.2	633.9	104.8	69.4	51.2	39.0	30.5
47.5°	1626.1	1428.6	1248.2	1062.9	894.7	738.7	98.7	65.8	46.3	34.2	26.8
50°	1891.8	1683.4	1455.4	1244.5	1044.7	843.5	92.7	59.7	41.5	30.5	21.9
52.5°	2178.3	1932.0	1699.2	1437.1	1204.4	981.2	86.6	54.8	37.8	26.8	18.2
55°	2542.7	2267.3	1994.2	1700.4	1420.1	1140.9	80.5	48.8	32.9	23.1	14.6
57.5°	3001.0	2674.3	2339.2	2007.6	1667.5	1350.6	75.6	42.7	28.0	19.5	12.2
60°	3433.8	3052.2	2646.3	2264.8	1880.8	1511.5	68.2	37.8	24.4	15.8	12.2
62.5°	3658.1	3222.9	2785.3	2364.7	1955.2	1568.8	60.9	31.7	20.7	13.4	10.9
65°	3603.2	3159.5	2735.3	2311.1	1910.1	1532.2	53.6	28.0	18.2	12.2	10.9
66°	3523.9	3085.1	2658.5	2255.0	1872.3	1493.2	50.0	26.8	17.0	12.2	9.7
67.5°	3350.9	2926.7	2519.5	2144.1	1768.7	1418.9	45.1	24.4	15.8	10.9	9.7
70°	2862.1	2476.9	2151.4	1817.4	1511.5	1195.8	36.6	20.7	13.4	9.7	9.7
72.5°	1894.3	1632.2	1415.2	1217.7	1017.8	789.9	30.5	17.0	10.9	9.7	8.5
75°	714.3	646.0	554.6	498.5	435.1	381.5	24.4	10.9	8.5	8.5	8.5
77.5°	126.7	117.0	103.6	95.1	87.8	80.5	19.5	7.3	7.3	8.5	8.5
80°	85.4	79.2	71.9	65.8	60.9	54.8	13.4	6.1	7.3	7.3	8.5
82.5°	60.9	57.3	53.6	48.8	45.1	40.2	8.5	6.1	7.3	7.3	7.3
85°	36.6	34.2	31.7	29.3	25.6	24.4	6.1	6.1	6.1	7.3	7.3
87.5°	9.7	8.5	9.7	9.7	7.3	8.5	4.9	4.9	4.9	6.1	6.1
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):

	145°	155°	165°	175°	180°
0°	191.4	191.4	191.4	191.4	191.4
2.5°	162.1	162.1	159.7	163.3	163.3
5°	140.2	140.2	139.0	140.2	140.2
7.5°	128.0	126.7	126.7	126.7	128.0
10°	117.0	115.8	115.8	115.8	115.8
12.5°	107.3	106.0	104.8	106.0	106.0
15°	98.7	96.3	96.3	96.3	96.3
17.5°	91.4	89.0	87.8	87.8	87.8
20°	84.1	80.5	80.5	80.5	80.5
22.5°	76.8	73.1	73.1	73.1	73.1
25°	69.4	65.8	65.8	65.8	65.8
27.5°	63.4	59.7	59.7	59.7	59.7
30°	56.1	53.6	53.6	54.8	53.6
32.5°	51.2	47.5	47.5	48.8	48.8
35°	45.1	42.7	42.7	42.7	42.7
37.5°	39.0	36.6	36.6	36.6	36.6
40°	34.2	31.7	30.5	31.7	31.7
42.5°	29.3	26.8	25.6	25.6	25.6
45°	25.6	21.9	20.7	21.9	21.9
47.5°	20.7	18.2	18.2	19.5	19.5
50°	15.8	15.8	17.0	19.5	19.5
52.5°	14.6	14.6	17.0	19.5	19.5
55°	13.4	14.6	17.0	18.2	19.5
57.5°	12.2	14.6	17.0	18.2	18.2
60°	12.2	13.4	15.8	18.2	18.2
62.5°	10.9	12.2	14.6	17.0	17.0
65°	10.9	12.2	14.6	17.0	17.0
66°	10.9	12.2	14.6	17.0	17.0
67.5°	10.9	12.2	14.6	17.0	17.0
70°	10.9	12.2	14.6	15.8	15.8
72.5°	9.7	10.9	13.4	15.8	15.8
75°	9.7	10.9	13.4	15.8	15.8
77.5°	9.7	10.9	13.4	15.8	15.8
80°	9.7	10.9	13.4	14.6	15.8
82.5°	8.5	10.9	12.2	14.6	14.6
85°	8.5	9.7	12.2	13.4	14.6
87.5°	7.3	8.5	9.7	12.2	12.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)