

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: P163509

Luminaire Tested: **LDRL-SL3-E01-E-7060-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P163509
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-7060-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) 5700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1725.7 lumens
Efficiency: N/A
Efficacy: 69.9 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

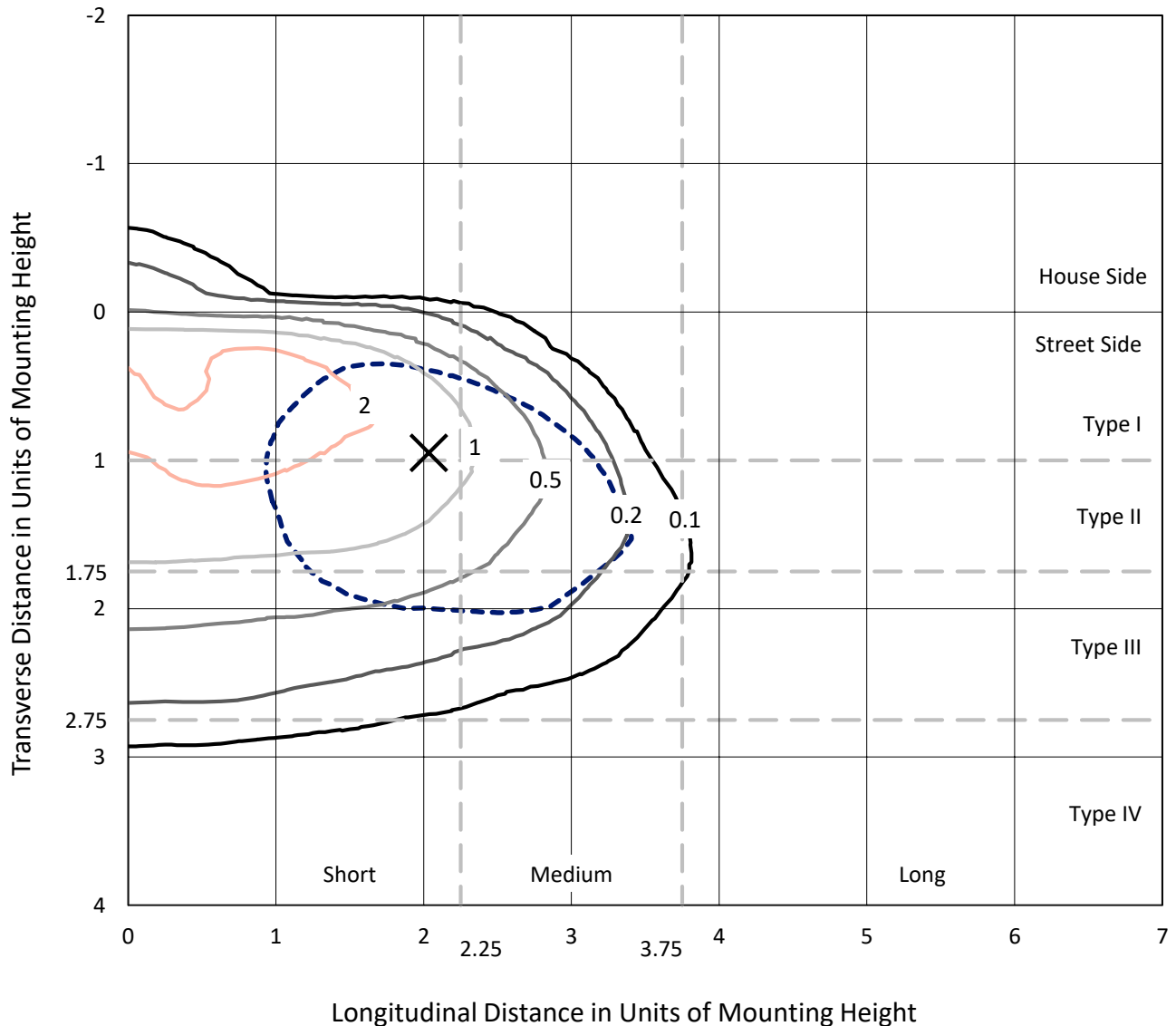
Input Watts (W): 24.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

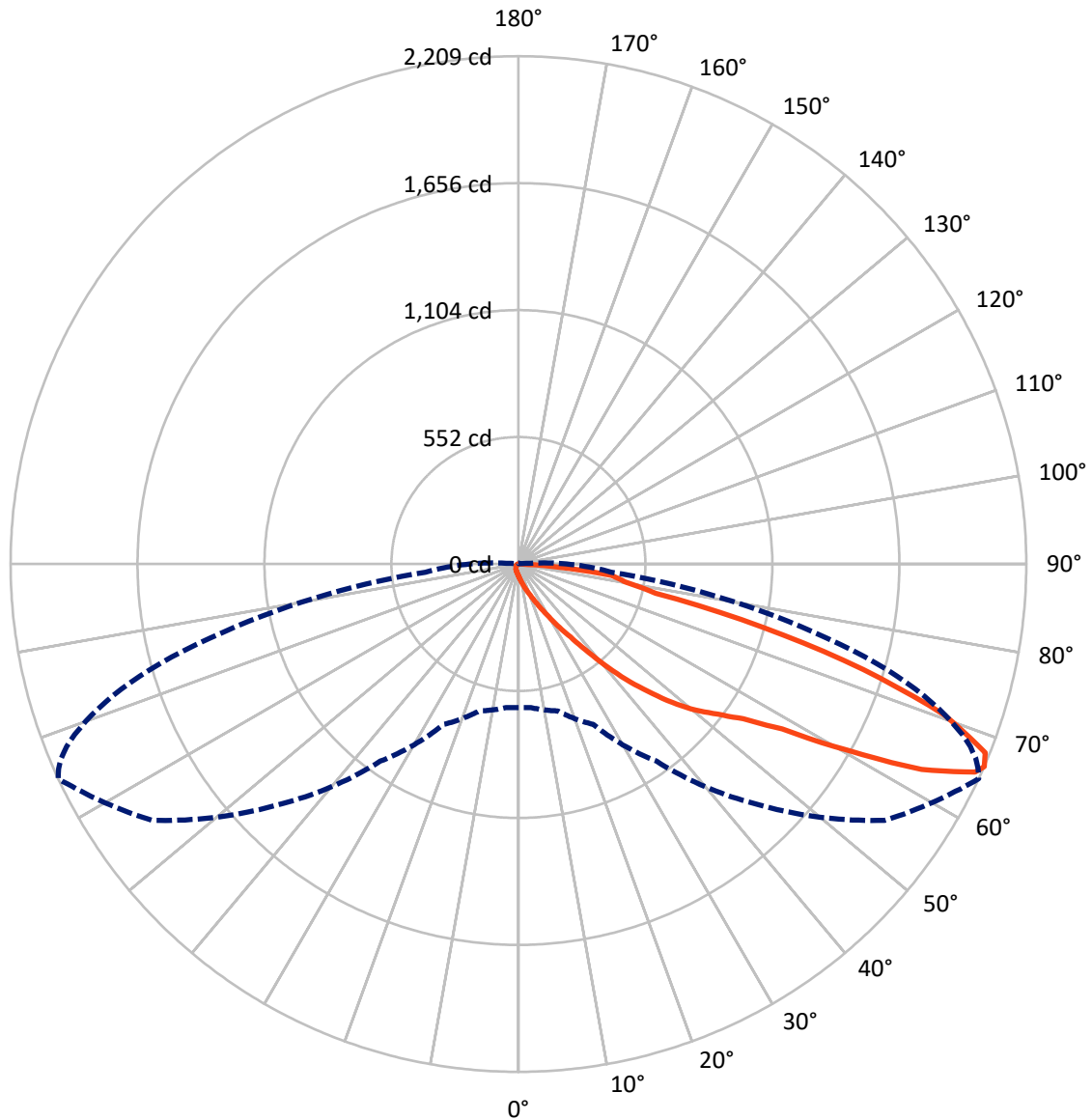
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.8 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	37.4	0.0	37.4
	% Fixture	2.2	0.0	2.2
Street Side	Lumens	1688.3	0.0	1688.3
	% Fixture	97.8	0.0	97.8
Total	Lumens	1725.7	0.0	1725.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	5.8	0.3
10°-20°	24.7	1.4
20°-30°	53.3	3.1
30°-40°	113.9	6.6
40°-50°	251.8	14.6
50°-60°	426.8	24.7
60°-70°	569.5	33.0
70°-80°	250.9	14.5
80°-90°	28.9	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°	1725.7	100.0
0°-180°	1725.7	100.0



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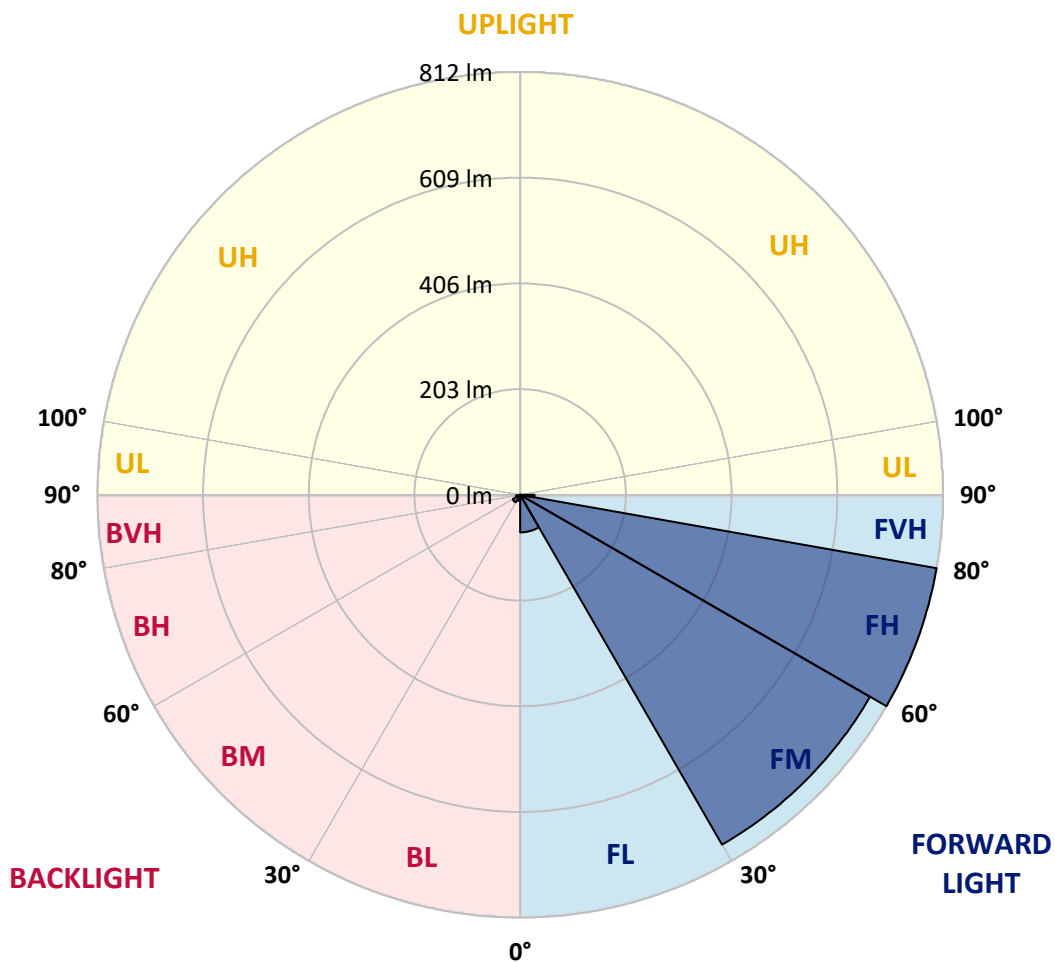
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	72.1	4.2			
FM	(30°-60°)	776.1	45.0			
FH	(60°-80°)	812.4	47.1			G1/1800
FVH	(80°-90°)	27.7	1.6			G1/100
BL	(0°-30°)	11.8	0.7	B0/110		
BM	(30°-60°)	16.4	1.0	B0/220		
BH	(60°-80°)	8.0	0.5	B0/110		G0/110
BVH	(80°-90°)	1.2	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-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1
2.5°	65.7	65.4	64.0	64.0	62.0	60.7	59.1	57.4	57.4	57.1	56.7
5°	86.9	84.9	84.6	81.0	78.0	73.7	69.7	64.4	63.7	63.0	62.7
7.5°	110.5	110.1	107.2	102.9	96.9	88.9	81.0	72.3	71.0	70.3	69.0
10°	141.0	139.3	135.4	128.1	119.1	108.5	95.6	81.9	80.3	79.0	78.3
12.5°	170.2	167.2	164.9	155.6	144.3	128.7	113.1	93.6	92.2	90.6	87.9
15°	197.4	194.8	190.8	182.8	170.2	150.6	132.4	108.5	105.2	102.9	100.9
17.5°	218.6	217.0	212.3	203.4	189.8	172.5	150.6	123.7	121.1	118.1	114.5
20°	238.9	236.6	229.3	217.0	202.4	189.1	172.2	143.7	140.0	136.3	132.4
22.5°	258.1	255.8	243.8	223.6	208.0	202.4	196.4	166.2	160.6	157.6	153.6
25°	285.0	280.0	261.4	229.3	208.4	212.7	223.0	195.4	190.1	185.8	179.5
27.5°	321.2	314.5	285.3	237.5	209.7	223.9	253.5	230.9	225.3	220.3	213.3
30°	362.0	357.6	322.8	257.4	219.3	240.5	287.6	276.0	269.4	263.4	255.1
32.5°	403.1	397.1	362.6	295.3	245.2	272.7	330.4	328.5	319.8	314.2	305.2
35°	439.3	436.3	410.7	357.3	304.2	329.1	387.5	389.8	382.2	376.2	366.3
37.5°	463.8	463.8	458.8	424.0	398.1	416.7	471.5	471.8	464.1	450.5	445.6
40°	476.4	480.1	498.0	504.6	503.3	527.2	581.6	575.6	569.3	562.3	545.8
42.5°	502.3	505.6	543.8	589.6	619.4	650.9	688.4	686.4	678.8	666.2	650.9
45°	546.1	550.4	595.9	668.5	729.9	774.7	798.6	789.3	781.6	769.7	761.7
47.5°	601.8	610.1	661.6	751.5	825.4	899.4	924.3	899.8	893.1	883.8	870.9
50°	661.2	669.2	723.9	826.8	910.4	998.6	1040.1	998.6	989.0	986.0	971.4
52.5°	712.7	719.3	772.0	884.8	975.4	1078.9	1139.3	1084.6	1077.6	1067.6	1057.0
55°	743.2	748.5	797.9	912.7	1019.5	1151.2	1235.2	1187.1	1176.8	1172.8	1157.5
57.5°	753.4	758.8	803.2	916.4	1043.4	1217.3	1351.6	1353.3	1341.0	1326.8	1322.1
60°	753.4	759.4	796.9	907.4	1066.6	1287.6	1506.9	1645.3	1618.7	1616.1	1599.1
62.5°	722.3	727.9	765.7	879.9	1097.8	1382.5	1723.2	1967.4	1959.8	1942.5	1914.7
65°	654.6	657.9	695.1	809.5	1085.9	1469.8	1910.7	2181.7	2169.5	2135.6	2099.8
66°	624.1	626.7	661.6	769.4	1046.7	1481.7	1943.9	2208.6	2188.4	2159.8	2119.4
67.5°	579.9	584.6	609.1	694.7	952.8	1440.2	1922.9	2189.7	2172.1	2137.6	2097.1
70°	387.2	383.9	470.4	533.2	725.9	1173.5	1725.2	1966.1	1966.4	1950.2	1933.9
72.5°	183.8	185.8	211.0	328.1	475.1	784.0	1373.2	1569.3	1591.8	1562.6	1542.4
75°	132.0	135.0	150.3	200.7	283.3	470.4	890.1	1097.5	1098.2	1046.4	1000.3
77.5°	38.5	40.1	56.4	123.7	212.3	317.5	511.3	610.1	595.9	558.7	523.9
80°	15.9	15.9	16.6	39.5	85.3	215.6	357.6	469.8	468.1	453.9	433.3
82.5°	6.0	6.3	8.0	16.3	20.2	53.1	238.5	407.8	406.7	386.5	371.9
85°	0.7	0.7	2.0	7.0	7.6	10.0	47.8	179.8	178.8	179.8	157.6
87.5°	0.0	0.0	0.3	0.7	1.0	1.3	2.0	7.0	7.6	7.3	6.6
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°	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1
2.5°	56.7	56.1	56.1	55.7	55.7	55.7	55.4	55.1	55.1	54.7	54.4
5°	62.0	61.4	61.1	60.4	60.0	59.7	59.1	58.7	58.1	57.7	57.4
7.5°	68.3	67.0	66.7	65.7	64.7	64.0	63.4	62.4	61.7	60.4	60.0
10°	76.3	74.6	73.3	72.0	71.0	69.3	68.3	67.0	65.7	64.7	63.7
12.5°	86.6	84.3	82.3	81.0	78.6	76.6	74.6	73.7	71.0	69.7	68.0
15°	97.9	95.2	92.9	90.2	88.6	85.3	82.6	79.6	78.3	76.0	73.3
17.5°	112.5	108.2	104.5	101.9	98.5	95.2	92.2	89.3	85.3	82.6	79.3
20°	128.1	124.4	119.4	114.8	110.8	106.8	102.5	98.5	94.9	90.6	86.6
22.5°	148.0	142.7	136.7	132.0	126.7	122.4	116.4	111.1	105.2	99.5	94.9
25°	173.2	166.2	160.6	153.9	147.6	141.0	133.7	127.1	119.4	114.1	106.2
27.5°	204.4	197.7	190.1	181.5	175.2	165.2	155.6	147.3	138.3	130.0	121.1
30°	244.2	234.6	226.6	218.3	205.7	196.1	184.8	173.5	161.2	153.0	139.3
32.5°	292.0	281.7	269.7	257.8	246.2	232.6	218.6	204.7	191.1	175.8	161.9
35°	350.4	338.1	324.5	311.5	293.6	279.0	261.4	242.2	226.9	209.3	191.8
37.5°	427.7	407.4	395.5	381.9	357.6	337.7	318.2	298.9	272.1	253.5	228.6
40°	524.5	512.6	493.0	471.1	449.2	423.0	396.5	370.9	339.7	313.9	285.0
42.5°	638.3	620.8	600.8	569.3	547.1	516.2	486.0	452.2	414.1	380.9	347.0
45°	745.2	724.2	709.0	677.5	654.2	617.8	581.3	545.4	501.3	458.5	419.3
47.5°	860.6	843.4	818.2	792.6	769.0	727.9	688.4	645.0	598.5	547.8	497.0
50°	962.1	948.5	931.3	900.4	874.2	839.7	793.3	745.8	687.1	636.7	578.9
52.5°	1048.4	1037.8	1013.6	991.7	968.1	935.6	894.1	848.7	785.3	729.9	664.2
55°	1150.2	1142.6	1121.4	1107.8	1086.9	1055.7	1016.9	974.7	907.7	847.3	773.0
57.5°	1317.1	1311.2	1292.6	1286.9	1266.4	1239.2	1191.4	1146.3	1068.0	993.0	908.1
60°	1593.5	1581.6	1554.3	1540.4	1496.9	1460.5	1398.4	1336.4	1241.8	1146.3	1044.1
62.5°	1889.4	1855.9	1804.2	1759.7	1698.0	1634.6	1551.7	1456.8	1346.0	1232.5	1115.1
65°	2049.0	1992.0	1926.6	1855.9	1776.0	1682.7	1578.2	1464.4	1345.3	1225.6	1101.5
66°	2067.3	2002.9	1933.6	1854.9	1766.0	1666.8	1560.6	1441.2	1317.5	1200.7	1076.6
67.5°	2044.4	1977.0	1903.7	1816.5	1720.2	1617.4	1505.9	1381.8	1262.7	1144.3	1023.5
70°	1884.1	1817.1	1751.7	1659.8	1557.3	1453.8	1348.3	1209.6	1096.8	988.0	880.5
72.5°	1504.6	1459.1	1394.4	1315.8	1215.9	1094.5	1006.6	882.5	784.6	679.1	595.9
75°	940.2	876.2	796.3	696.0	619.7	521.2	469.8	375.6	319.8	271.1	223.9
77.5°	480.7	432.6	376.6	320.2	266.1	212.3	164.2	116.1	78.3	54.4	40.5
80°	397.1	354.7	308.2	256.8	209.0	162.2	116.8	79.6	50.8	33.2	25.9
82.5°	328.1	292.3	250.8	203.0	161.6	127.4	88.6	57.7	35.8	23.2	18.2
85°	139.7	126.7	97.9	77.6	58.4	43.1	30.2	20.2	14.3	11.6	10.6
87.5°	6.0	6.6	6.3	5.0	3.7	3.7	3.3	2.6	2.6	2.6	2.6
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°	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1
2.5°	54.4	54.1	53.7	53.7	53.4	53.1	51.1	49.4	47.4	46.1	44.8
5°	56.7	56.4	55.7	55.4	54.7	54.4	50.1	46.4	43.5	41.1	39.5
7.5°	59.1	58.7	57.7	56.7	56.4	55.7	48.8	44.1	40.1	37.5	35.8
10°	62.0	61.1	60.0	58.7	57.7	56.7	47.4	41.5	37.2	34.8	33.2
12.5°	66.3	64.7	63.0	61.4	60.0	58.4	46.8	39.2	34.8	32.2	30.5
15°	71.3	69.0	67.0	65.0	62.7	61.1	45.5	37.2	32.8	30.2	28.2
17.5°	76.0	73.3	70.3	67.4	65.0	62.7	44.1	35.2	30.8	28.2	26.2
20°	82.6	78.6	75.0	71.3	68.0	65.0	42.1	33.2	29.2	26.2	24.2
22.5°	89.9	85.3	80.6	75.6	71.3	67.4	40.5	31.5	27.5	24.5	22.2
25°	99.2	93.6	87.3	81.0	76.0	70.7	38.8	29.9	25.9	22.9	20.6
27.5°	112.1	104.2	97.2	89.3	81.6	75.6	37.5	28.5	24.2	21.2	18.9
30°	129.7	118.1	107.2	98.5	89.6	81.0	36.2	26.9	22.9	19.6	16.9
32.5°	149.3	135.7	123.1	110.1	98.9	88.9	34.8	25.6	21.2	17.9	15.6
35°	173.5	156.3	139.3	124.4	110.8	97.5	33.5	24.2	19.9	16.3	13.9
37.5°	208.4	186.8	164.6	145.3	127.7	110.1	32.5	22.9	18.2	14.6	12.3
40°	256.1	228.3	201.1	174.8	151.9	130.0	31.2	21.6	16.9	13.3	10.9
42.5°	307.9	274.1	238.2	208.7	177.2	149.6	29.9	20.2	15.6	11.9	9.6
45°	372.3	330.1	286.7	246.5	208.0	172.5	28.5	18.9	13.9	10.6	8.3
47.5°	442.6	388.8	339.7	289.3	243.5	201.1	26.9	17.9	12.6	9.3	7.3
50°	514.9	458.2	396.1	338.7	284.3	229.6	25.2	16.3	11.3	8.3	6.0
52.5°	592.9	525.9	462.5	391.2	327.8	267.1	23.6	14.9	10.3	7.3	5.0
55°	692.1	617.1	542.8	462.8	386.5	310.5	21.9	13.3	8.9	6.3	4.0
57.5°	816.8	727.9	636.7	546.4	453.9	367.6	20.6	11.6	7.6	5.3	3.3
60°	934.6	830.8	720.3	616.4	511.9	411.4	18.6	10.3	6.6	4.3	3.3
62.5°	995.7	877.2	758.1	643.6	532.2	427.0	16.6	8.6	5.6	3.7	3.0
65°	980.7	860.0	744.5	629.0	519.9	417.0	14.6	7.6	5.0	3.3	3.0
66°	959.1	839.7	723.6	613.8	509.6	406.4	13.6	7.3	4.6	3.3	2.6
67.5°	912.0	796.6	685.8	583.6	481.4	386.2	12.3	6.6	4.3	3.0	2.6
70°	779.0	674.2	585.6	494.7	411.4	325.5	10.0	5.6	3.7	2.6	2.6
72.5°	515.6	444.2	385.2	331.4	277.0	215.0	8.3	4.6	3.0	2.6	2.3
75°	194.4	175.8	151.0	135.7	118.4	103.8	6.6	3.0	2.3	2.3	2.3
77.5°	34.5	31.9	28.2	25.9	23.9	21.9	5.3	2.0	2.0	2.3	2.3
80°	23.2	21.6	19.6	17.9	16.6	14.9	3.7	1.7	2.0	2.0	2.3
82.5°	16.6	15.6	14.6	13.3	12.3	10.9	2.3	1.7	2.0	2.0	2.0
85°	10.0	9.3	8.6	8.0	7.0	6.6	1.7	1.7	1.7	2.0	2.0
87.5°	2.6	2.3	2.6	2.6	2.0	2.3	1.3	1.3	1.3	1.7	1.7
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):

	145°	155°	165°	175°	180°
0°	52.1	52.1	52.1	52.1	52.1
2.5°	44.1	44.1	43.5	44.5	44.5
5°	38.2	38.2	37.8	38.2	38.2
7.5°	34.8	34.5	34.5	34.5	34.8
10°	31.9	31.5	31.5	31.5	31.5
12.5°	29.2	28.9	28.5	28.9	28.9
15°	26.9	26.2	26.2	26.2	26.2
17.5°	24.9	24.2	23.9	23.9	23.9
20°	22.9	21.9	21.9	21.9	21.9
22.5°	20.9	19.9	19.9	19.9	19.9
25°	18.9	17.9	17.9	17.9	17.9
27.5°	17.3	16.3	16.3	16.3	16.3
30°	15.3	14.6	14.6	14.9	14.6
32.5°	13.9	12.9	12.9	13.3	13.3
35°	12.3	11.6	11.6	11.6	11.6
37.5°	10.6	10.0	10.0	10.0	10.0
40°	9.3	8.6	8.3	8.6	8.6
42.5°	8.0	7.3	7.0	7.0	7.0
45°	7.0	6.0	5.6	6.0	6.0
47.5°	5.6	5.0	5.0	5.3	5.3
50°	4.3	4.3	4.6	5.3	5.3
52.5°	4.0	4.0	4.6	5.3	5.3
55°	3.7	4.0	4.6	5.0	5.3
57.5°	3.3	4.0	4.6	5.0	5.0
60°	3.3	3.7	4.3	5.0	5.0
62.5°	3.0	3.3	4.0	4.6	4.6
65°	3.0	3.3	4.0	4.6	4.6
66°	3.0	3.3	4.0	4.6	4.6
67.5°	3.0	3.3	4.0	4.6	4.6
70°	3.0	3.3	4.0	4.3	4.3
72.5°	2.6	3.0	3.7	4.3	4.3
75°	2.6	3.0	3.7	4.3	4.3
77.5°	2.6	3.0	3.7	4.3	4.3
80°	2.6	3.0	3.7	4.0	4.3
82.5°	2.3	3.0	3.3	4.0	4.0
85°	2.3	2.6	3.3	3.7	4.0
87.5°	2.0	2.3	2.6	3.3	3.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)