

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: P163510

Luminaire Tested: **LDRL-SL3-F01-E-8030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P163510
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-F01-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: (7) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1171.8 lumens
Efficiency: N/A
Efficacy: 45.2 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): 25.9
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

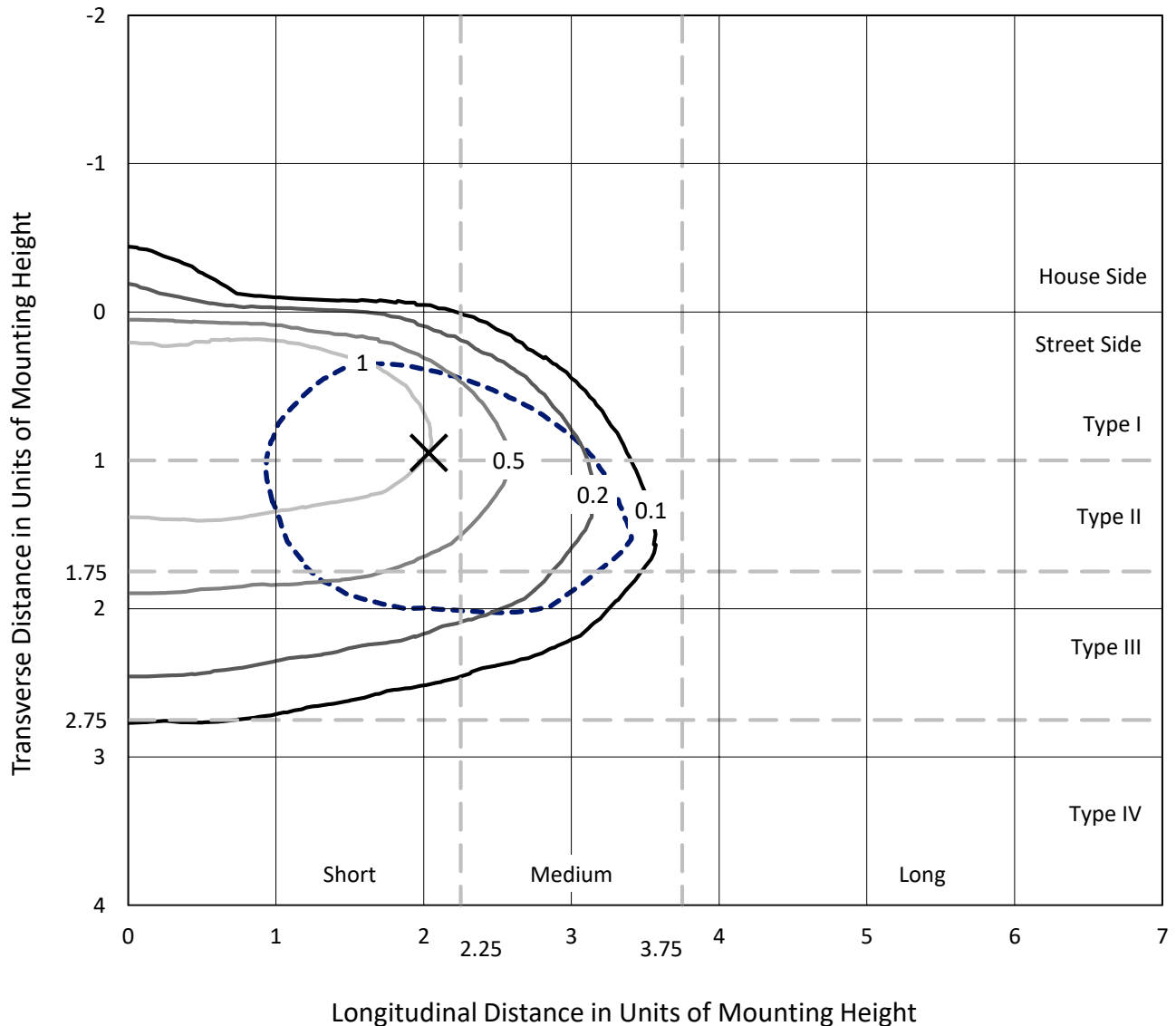


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

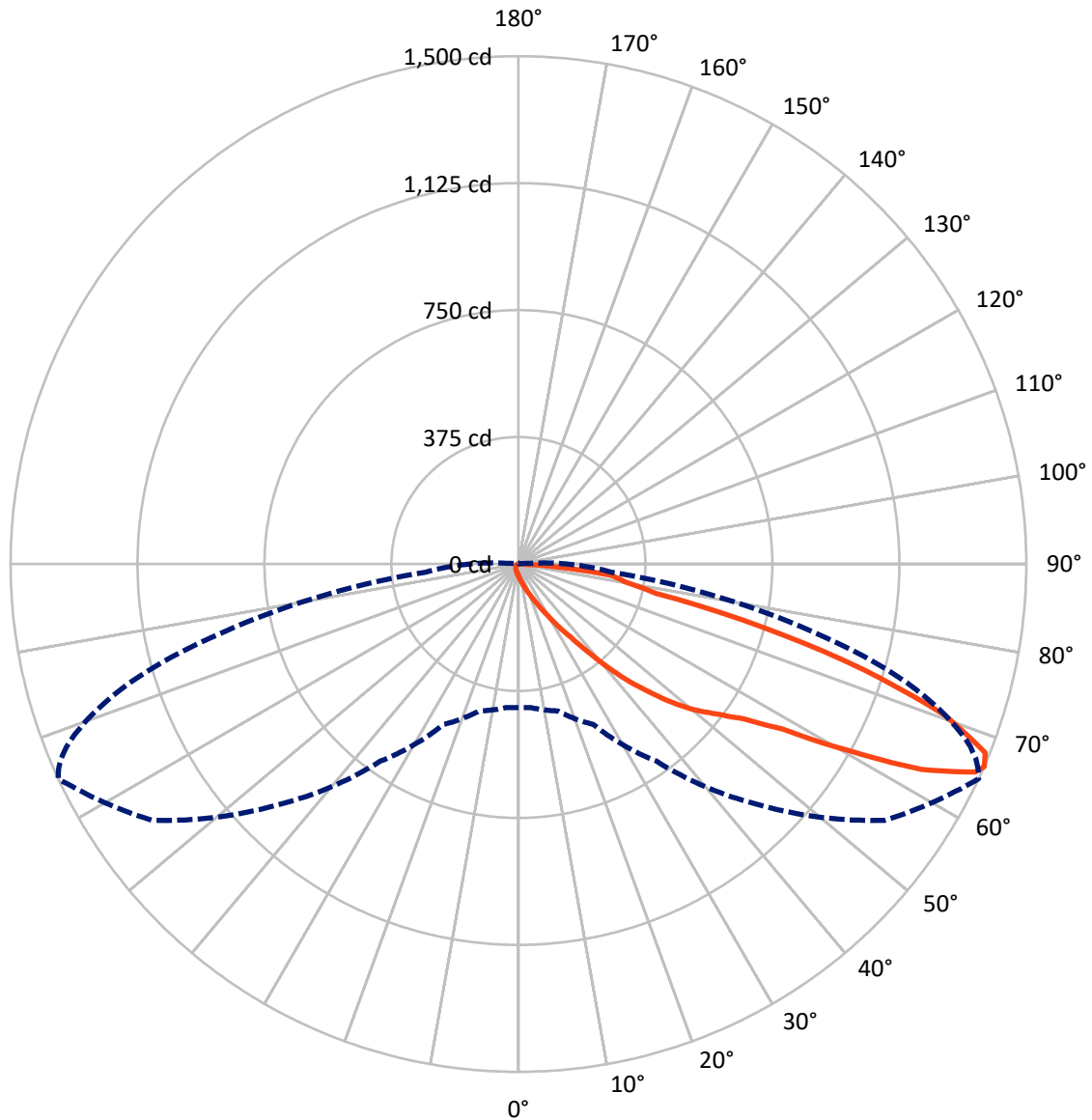


Based on 10 foot mounting height. Maximum calculated value = 1.9 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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

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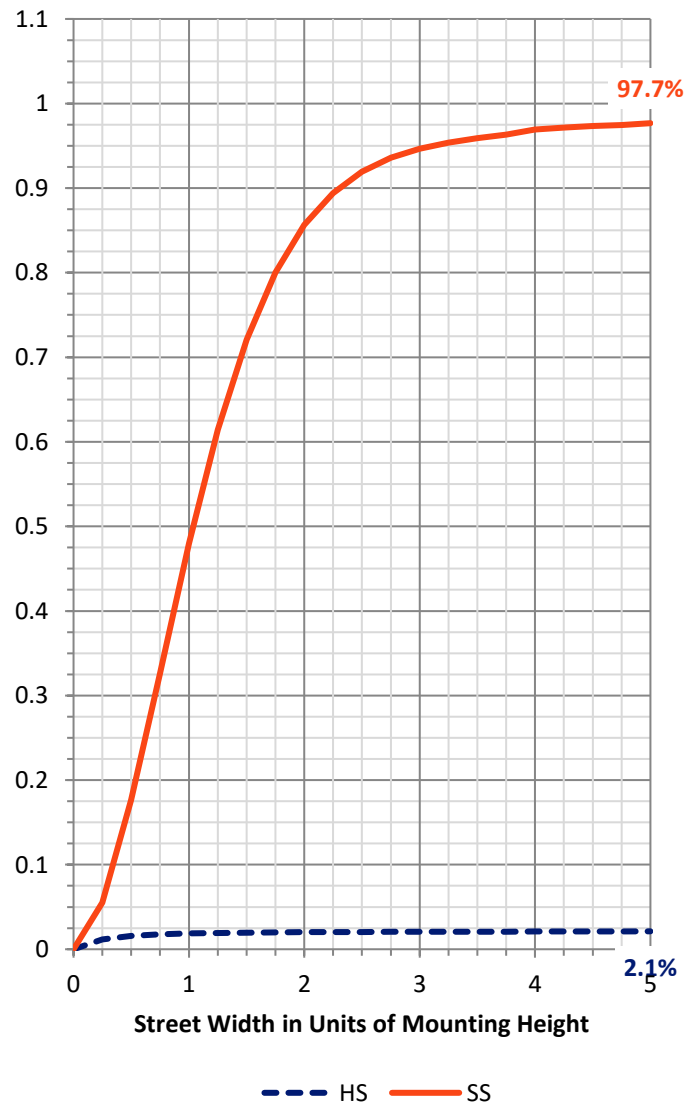
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	25.4	0.0	25.4
	% Fixture	2.2	0.0	2.2
Street Side	Lumens	1146.4	0.0	1146.4
	% Fixture	97.8	0.0	97.8
Total	Lumens	1171.8	0.0	1171.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4.0	0.3
10°-20°	16.8	1.4
20°-30°	36.2	3.1
30°-40°	77.3	6.6
40°-50°	171.0	14.6
50°-60°	289.8	24.7
60°-70°	386.7	33.0
70°-80°	170.3	14.5
80°-90°	19.6	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°	1171.8	100.0
0°-180°	1171.8	100.0



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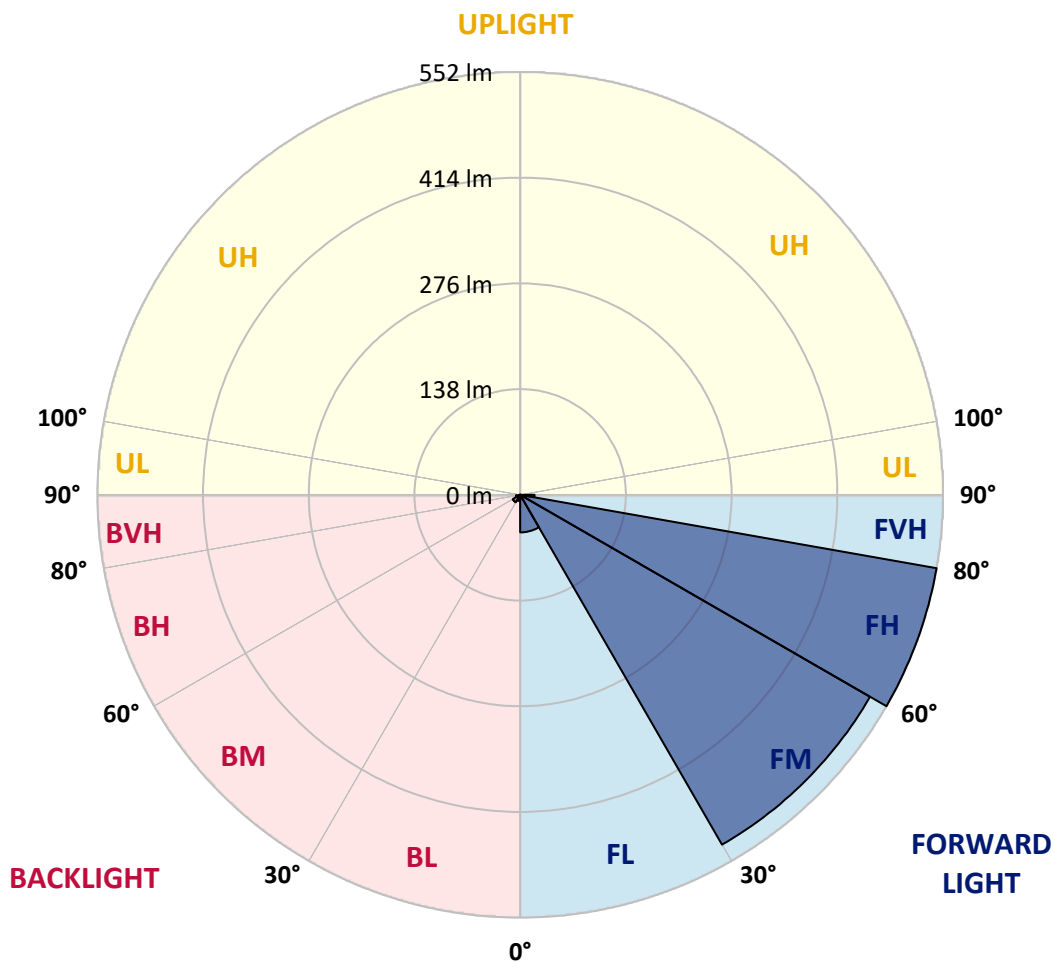
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	48.9	4.2			
FM	(30°-60°)	527.0	45.0			
FH	(60°-80°)	551.6	47.1			G0/660
FVH	(80°-90°)	18.8	1.6			G1/100
BL	(0°-30°)	8.0	0.7	B0/110		
BM	(30°-60°)	11.2	1.0	B0/220		
BH	(60°-80°)	5.4	0.5	B0/110		G0/110
BVH	(80°-90°)	0.8	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°	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4
2.5°	44.6	44.4	43.5	43.5	42.1	41.2	40.1	39.0	39.0	38.8	38.5
5°	59.0	57.7	57.4	55.0	52.9	50.0	47.3	43.7	43.3	42.8	42.6
7.5°	75.0	74.8	72.8	69.8	65.8	60.4	55.0	49.1	48.2	47.8	46.9
10°	95.7	94.6	91.9	87.0	80.9	73.7	64.9	55.6	54.5	53.6	53.2
12.5°	115.6	113.5	112.0	105.7	98.0	87.4	76.8	63.5	62.6	61.5	59.7
15°	134.0	132.2	129.5	124.1	115.6	102.3	89.9	73.7	71.4	69.8	68.5
17.5°	148.5	147.3	144.2	138.1	128.9	117.1	102.3	84.0	82.2	80.2	77.7
20°	162.2	160.6	155.7	147.3	137.4	128.4	116.9	97.5	95.1	92.6	89.9
22.5°	175.3	173.7	165.6	151.8	141.2	137.4	133.4	112.9	109.0	107.0	104.3
25°	193.5	190.1	177.5	155.7	141.5	144.4	151.4	132.7	129.1	126.2	121.9
27.5°	218.1	213.6	193.7	161.3	142.4	152.1	172.1	156.8	153.0	149.6	144.9
30°	245.8	242.8	219.2	174.8	148.9	163.3	195.3	187.4	182.9	178.9	173.2
32.5°	273.7	269.7	246.2	200.5	166.5	185.2	224.4	223.0	217.2	213.3	207.3
35°	298.3	296.2	278.9	242.6	206.6	223.5	263.1	264.7	259.5	255.5	248.7
37.5°	314.9	314.9	311.6	287.9	270.3	282.9	320.1	320.3	315.2	305.9	302.6
40°	323.5	326.0	338.1	342.6	341.7	358.0	394.9	390.9	386.6	381.8	370.6
42.5°	341.1	343.3	369.2	400.3	420.6	442.0	467.4	466.1	460.9	452.3	442.0
45°	370.8	373.7	404.6	453.9	495.6	526.0	542.2	535.9	530.7	522.6	517.2
47.5°	408.6	414.3	449.2	510.2	560.5	610.7	627.6	611.0	606.4	600.1	591.3
50°	449.0	454.4	491.5	561.4	618.2	678.1	706.2	678.1	671.5	669.5	659.6
52.5°	483.9	488.4	524.2	600.8	662.3	732.6	773.6	736.4	731.7	724.9	717.7
55°	504.6	508.2	541.8	619.7	692.3	781.7	838.7	806.0	799.1	796.4	786.0
57.5°	511.6	515.2	545.4	622.2	708.5	826.5	917.8	918.9	910.6	900.9	897.7
60°	511.6	515.7	541.1	616.1	724.3	874.3	1023.2	1117.1	1099.1	1097.3	1085.8
62.5°	490.4	494.3	519.9	597.4	745.4	938.7	1170.1	1335.9	1330.7	1319.0	1300.1
65°	444.5	446.7	472.0	549.7	737.3	998.0	1297.4	1481.4	1473.1	1450.1	1425.8
66°	423.7	425.6	449.2	522.4	710.7	1006.1	1319.9	1499.7	1485.9	1466.5	1439.1
67.5°	393.8	396.9	413.6	471.7	647.0	977.9	1305.7	1486.8	1474.9	1451.5	1424.0
70°	262.9	260.6	319.4	362.0	492.9	796.8	1171.4	1335.0	1335.2	1324.2	1313.1
72.5°	124.8	126.2	143.3	222.8	322.6	532.3	932.4	1065.6	1080.9	1061.0	1047.3
75°	89.7	91.7	102.0	136.3	192.4	319.4	604.4	745.2	745.7	710.5	679.2
77.5°	26.1	27.3	38.3	84.0	144.2	215.6	347.2	414.3	404.6	379.4	355.7
80°	10.8	10.8	11.3	26.8	57.9	146.4	242.8	319.0	317.9	308.2	294.2
82.5°	4.1	4.3	5.4	11.0	13.7	36.0	162.0	276.9	276.2	262.4	252.5
85°	0.4	0.4	1.4	4.7	5.2	6.8	32.4	122.1	121.4	122.1	107.0
87.5°	0.0	0.0	0.2	0.4	0.7	0.9	1.4	4.7	5.2	5.0	4.5
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°	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4
2.5°	38.5	38.1	38.1	37.8	37.8	37.8	37.6	37.4	37.4	37.2	36.9
5°	42.1	41.7	41.5	41.0	40.8	40.6	40.1	39.9	39.4	39.2	39.0
7.5°	46.4	45.5	45.3	44.6	43.9	43.5	43.0	42.3	41.9	41.0	40.8
10°	51.8	50.7	49.8	48.9	48.2	47.1	46.4	45.5	44.6	43.9	43.3
12.5°	58.8	57.2	55.9	55.0	53.4	52.0	50.7	50.0	48.2	47.3	46.2
15°	66.5	64.7	63.1	61.3	60.1	57.9	56.1	54.1	53.2	51.6	49.8
17.5°	76.4	73.4	71.0	69.2	66.9	64.7	62.6	60.6	57.9	56.1	53.8
20°	87.0	84.5	81.1	78.0	75.2	72.5	69.6	66.9	64.4	61.5	58.8
22.5°	100.5	96.9	92.8	89.7	86.1	83.1	79.1	75.5	71.4	67.6	64.4
25°	117.6	112.9	109.0	104.5	100.2	95.7	90.8	86.3	81.1	77.5	72.1
27.5°	138.8	134.3	129.1	123.2	118.9	112.2	105.7	100.0	93.9	88.3	82.2
30°	165.8	159.3	153.9	148.2	139.7	133.1	125.5	117.8	109.5	103.9	94.6
32.5°	198.2	191.3	183.1	175.0	167.2	157.9	148.5	139.0	129.8	119.4	109.9
35°	237.9	229.6	220.3	211.5	199.4	189.5	177.5	164.5	154.1	142.1	130.2
37.5°	290.4	276.6	268.5	259.3	242.8	229.3	216.0	203.0	184.7	172.1	155.2
40°	356.2	348.0	334.8	319.9	305.0	287.2	269.2	251.9	230.7	213.1	193.5
42.5°	433.4	421.5	408.0	386.6	371.5	350.5	330.0	307.1	281.1	258.6	235.6
45°	506.0	491.8	481.4	460.0	444.2	419.5	394.7	370.4	340.4	311.3	284.7
47.5°	584.4	572.6	555.5	538.2	522.2	494.3	467.4	437.9	406.4	371.9	337.5
50°	653.3	644.1	632.3	611.4	593.6	570.2	538.6	506.4	466.5	432.3	393.1
52.5°	711.9	704.7	688.2	673.4	657.4	635.3	607.1	576.3	533.2	495.6	451.0
55°	781.0	775.8	761.4	752.2	738.0	716.8	690.5	661.9	616.4	575.4	524.9
57.5°	894.3	890.3	877.7	873.8	859.9	841.4	809.0	778.3	725.2	674.2	616.6
60°	1082.0	1073.9	1055.4	1046.0	1016.4	991.7	949.5	907.4	843.2	778.3	708.9
62.5°	1282.9	1260.2	1225.0	1194.9	1153.0	1109.9	1053.6	989.2	913.9	836.9	757.2
65°	1391.3	1352.6	1308.2	1260.2	1205.9	1142.6	1071.6	994.4	913.5	832.2	747.9
66°	1403.7	1360.0	1312.9	1259.5	1199.1	1131.8	1059.7	978.6	894.6	815.3	731.0
67.5°	1388.1	1342.4	1292.6	1233.4	1168.0	1098.2	1022.5	938.3	857.4	777.0	695.0
70°	1279.3	1233.8	1189.5	1127.1	1057.4	987.2	915.5	821.4	744.8	670.9	597.9
72.5°	1021.6	990.8	946.8	893.4	825.6	743.2	683.5	599.2	532.8	461.1	404.6
75°	638.4	595.0	540.7	472.6	420.8	353.9	319.0	255.0	217.2	184.0	152.1
77.5°	326.4	293.8	255.7	217.4	180.7	144.2	111.5	78.8	53.2	36.9	27.5
80°	269.7	240.8	209.3	174.4	141.9	110.2	79.3	54.1	34.5	22.5	17.6
82.5°	222.8	198.5	170.3	137.9	109.7	86.5	60.1	39.2	24.3	15.8	12.4
85°	94.8	86.1	66.5	52.7	39.6	29.3	20.5	13.7	9.7	7.9	7.2
87.5°	4.1	4.5	4.3	3.4	2.5	2.5	2.3	1.8	1.8	1.8	1.8
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°	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4
2.5°	36.9	36.7	36.5	36.5	36.3	36.0	34.7	33.6	32.2	31.3	30.4
5°	38.5	38.3	37.8	37.6	37.2	36.9	34.0	31.5	29.5	27.9	26.8
7.5°	40.1	39.9	39.2	38.5	38.3	37.8	33.1	30.0	27.3	25.5	24.3
10°	42.1	41.5	40.8	39.9	39.2	38.5	32.2	28.2	25.2	23.6	22.5
12.5°	45.1	43.9	42.8	41.7	40.8	39.6	31.8	26.6	23.6	21.8	20.7
15°	48.4	46.9	45.5	44.2	42.6	41.5	30.9	25.2	22.3	20.5	19.1
17.5°	51.6	49.8	47.8	45.7	44.2	42.6	30.0	23.9	20.9	19.1	17.8
20°	56.1	53.4	50.9	48.4	46.2	44.2	28.6	22.5	19.8	17.8	16.4
22.5°	61.0	57.9	54.7	51.4	48.4	45.7	27.5	21.4	18.7	16.7	15.1
25°	67.4	63.5	59.3	55.0	51.6	48.0	26.4	20.3	17.6	15.5	14.0
27.5°	76.1	70.7	66.0	60.6	55.4	51.4	25.5	19.4	16.4	14.4	12.8
30°	88.1	80.2	72.8	66.9	60.8	55.0	24.6	18.2	15.5	13.3	11.5
32.5°	101.4	92.1	83.6	74.8	67.1	60.4	23.6	17.3	14.4	12.2	10.6
35°	117.8	106.1	94.6	84.5	75.2	66.2	22.8	16.4	13.5	11.0	9.5
37.5°	141.5	126.8	111.7	98.7	86.7	74.8	22.1	15.5	12.4	9.9	8.3
40°	173.9	155.0	136.5	118.7	103.2	88.3	21.2	14.6	11.5	9.0	7.4
42.5°	209.1	186.1	161.8	141.7	120.3	101.6	20.3	13.7	10.6	8.1	6.5
45°	252.8	224.2	194.6	167.4	141.2	117.1	19.4	12.8	9.5	7.2	5.6
47.5°	300.5	264.0	230.7	196.4	165.3	136.5	18.2	12.2	8.6	6.3	5.0
50°	349.6	311.1	269.0	230.0	193.1	155.9	17.1	11.0	7.7	5.6	4.1
52.5°	402.6	357.1	314.0	265.6	222.6	181.3	16.0	10.1	7.0	5.0	3.4
55°	469.9	419.0	368.5	314.3	262.4	210.9	14.9	9.0	6.1	4.3	2.7
57.5°	554.6	494.3	432.3	371.0	308.2	249.6	14.0	7.9	5.2	3.6	2.3
60°	634.6	564.1	489.1	418.6	347.6	279.3	12.6	7.0	4.5	2.9	2.3
62.5°	676.1	595.6	514.7	437.0	361.3	289.9	11.3	5.9	3.8	2.5	2.0
65°	665.9	583.9	505.5	427.1	353.0	283.2	9.9	5.2	3.4	2.3	2.0
66°	651.3	570.2	491.3	416.8	346.0	276.0	9.2	5.0	3.1	2.3	1.8
67.5°	619.3	540.9	465.6	396.3	326.9	262.2	8.3	4.5	2.9	2.0	1.8
70°	528.9	457.8	397.6	335.9	279.3	221.0	6.8	3.8	2.5	1.8	1.8
72.5°	350.1	301.6	261.5	225.0	188.1	146.0	5.6	3.1	2.0	1.8	1.6
75°	132.0	119.4	102.5	92.1	80.4	70.5	4.5	2.0	1.6	1.6	1.6
77.5°	23.4	21.6	19.1	17.6	16.2	14.9	3.6	1.4	1.4	1.6	1.6
80°	15.8	14.6	13.3	12.2	11.3	10.1	2.5	1.1	1.4	1.4	1.6
82.5°	11.3	10.6	9.9	9.0	8.3	7.4	1.6	1.1	1.4	1.4	1.4
85°	6.8	6.3	5.9	5.4	4.7	4.5	1.1	1.1	1.1	1.4	1.4
87.5°	1.8	1.6	1.8	1.8	1.4	1.6	0.9	0.9	0.9	1.1	1.1
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°	35.4	35.4	35.4	35.4	35.4
2.5°	30.0	30.0	29.5	30.2	30.2
5°	25.9	25.9	25.7	25.9	25.9
7.5°	23.6	23.4	23.4	23.4	23.6
10°	21.6	21.4	21.4	21.4	21.4
12.5°	19.8	19.6	19.4	19.6	19.6
15°	18.2	17.8	17.8	17.8	17.8
17.5°	16.9	16.4	16.2	16.2	16.2
20°	15.5	14.9	14.9	14.9	14.9
22.5°	14.2	13.5	13.5	13.5	13.5
25°	12.8	12.2	12.2	12.2	12.2
27.5°	11.7	11.0	11.0	11.0	11.0
30°	10.4	9.9	9.9	10.1	9.9
32.5°	9.5	8.8	8.8	9.0	9.0
35°	8.3	7.9	7.9	7.9	7.9
37.5°	7.2	6.8	6.8	6.8	6.8
40°	6.3	5.9	5.6	5.9	5.9
42.5°	5.4	5.0	4.7	4.7	4.7
45°	4.7	4.1	3.8	4.1	4.1
47.5°	3.8	3.4	3.4	3.6	3.6
50°	2.9	2.9	3.1	3.6	3.6
52.5°	2.7	2.7	3.1	3.6	3.6
55°	2.5	2.7	3.1	3.4	3.6
57.5°	2.3	2.7	3.1	3.4	3.4
60°	2.3	2.5	2.9	3.4	3.4
62.5°	2.0	2.3	2.7	3.1	3.1
65°	2.0	2.3	2.7	3.1	3.1
66°	2.0	2.3	2.7	3.1	3.1
67.5°	2.0	2.3	2.7	3.1	3.1
70°	2.0	2.3	2.7	2.9	2.9
72.5°	1.8	2.0	2.5	2.9	2.9
75°	1.8	2.0	2.5	2.9	2.9
77.5°	1.8	2.0	2.5	2.9	2.9
80°	1.8	2.0	2.5	2.7	2.9
82.5°	1.6	2.0	2.3	2.7	2.7
85°	1.6	1.8	2.3	2.5	2.7
87.5°	1.4	1.6	1.8	2.3	2.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)