

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: P163511

Luminaire Tested: **LDRL-SL3-F01-E-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P163511
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-7030-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, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1268 lumens
Efficiency: N/A
Efficacy: 49.0 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

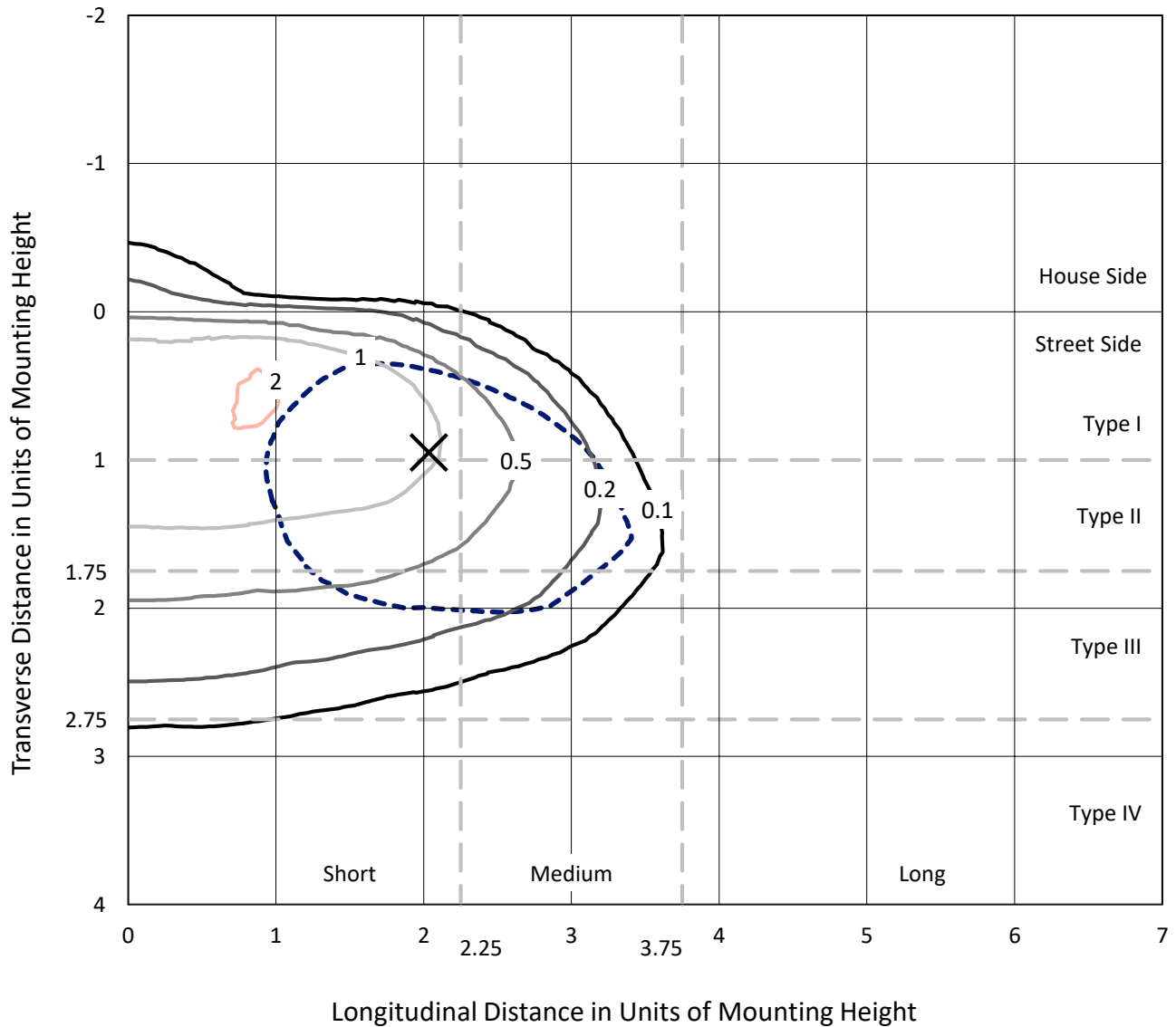


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Iso-Footcandle Lines of Horizontal Illumination

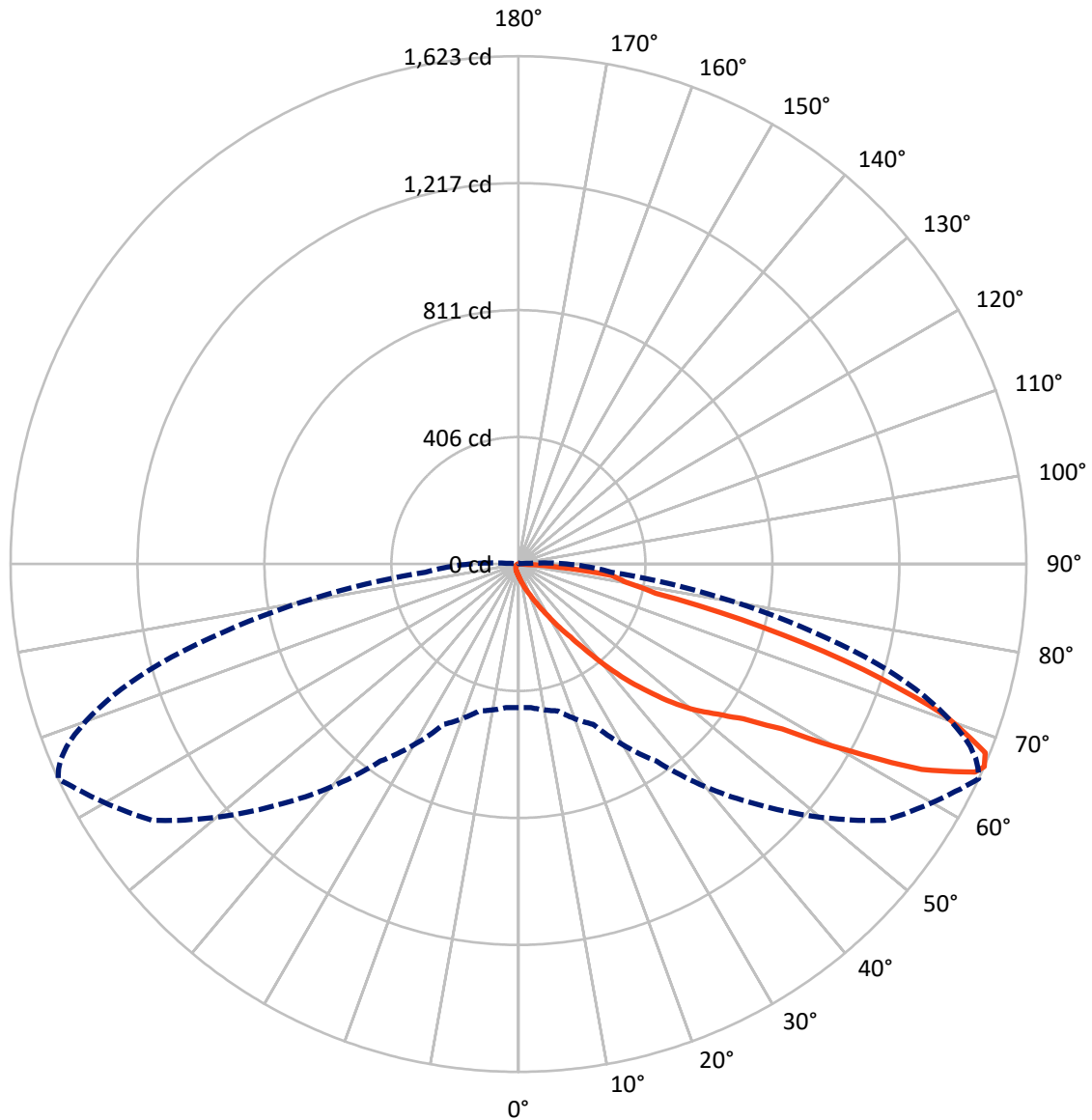
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.1 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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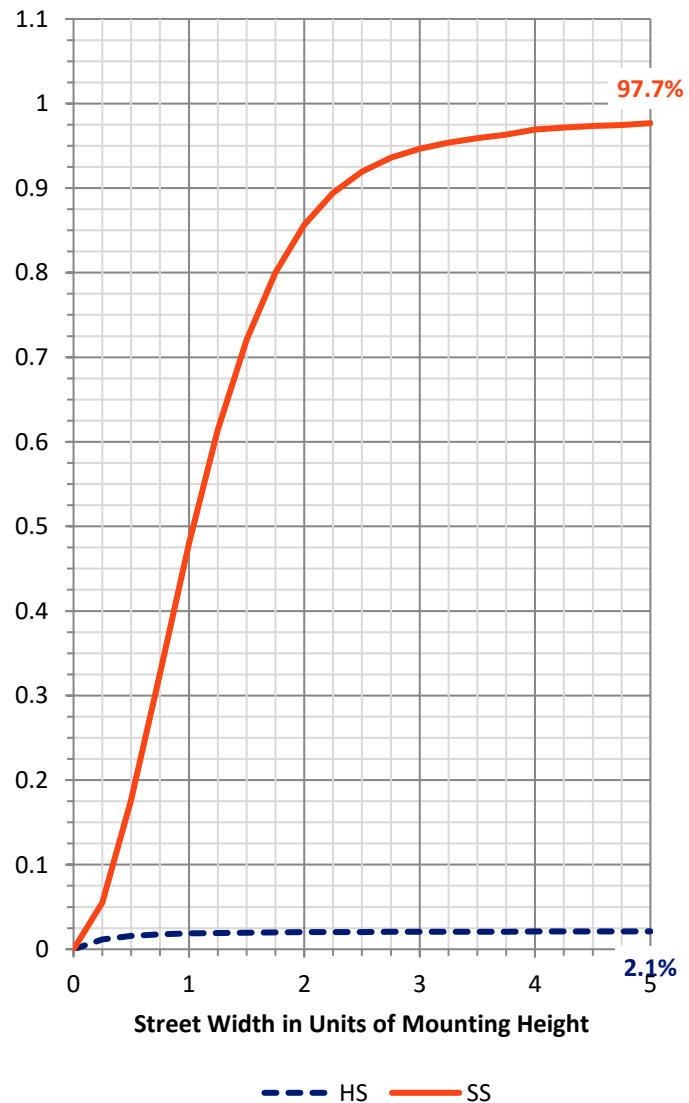
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	27.5	0.0	27.5
	% Fixture	2.2	0.0	2.2
Street Side	Lumens	1240.6	0.0	1240.6
	% Fixture	97.8	0.0	97.8
Total	Lumens	1268.0	0.0	1268.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4.3	0.3
10°-20°	18.2	1.4
20°-30°	39.2	3.1
30°-40°	83.7	6.6
40°-50°	185.1	14.6
50°-60°	313.6	24.7
60°-70°	418.5	33.0
70°-80°	184.3	14.5
80°-90°	21.2	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°	1268.0	100.0
0°-180°	1268.0	100.0



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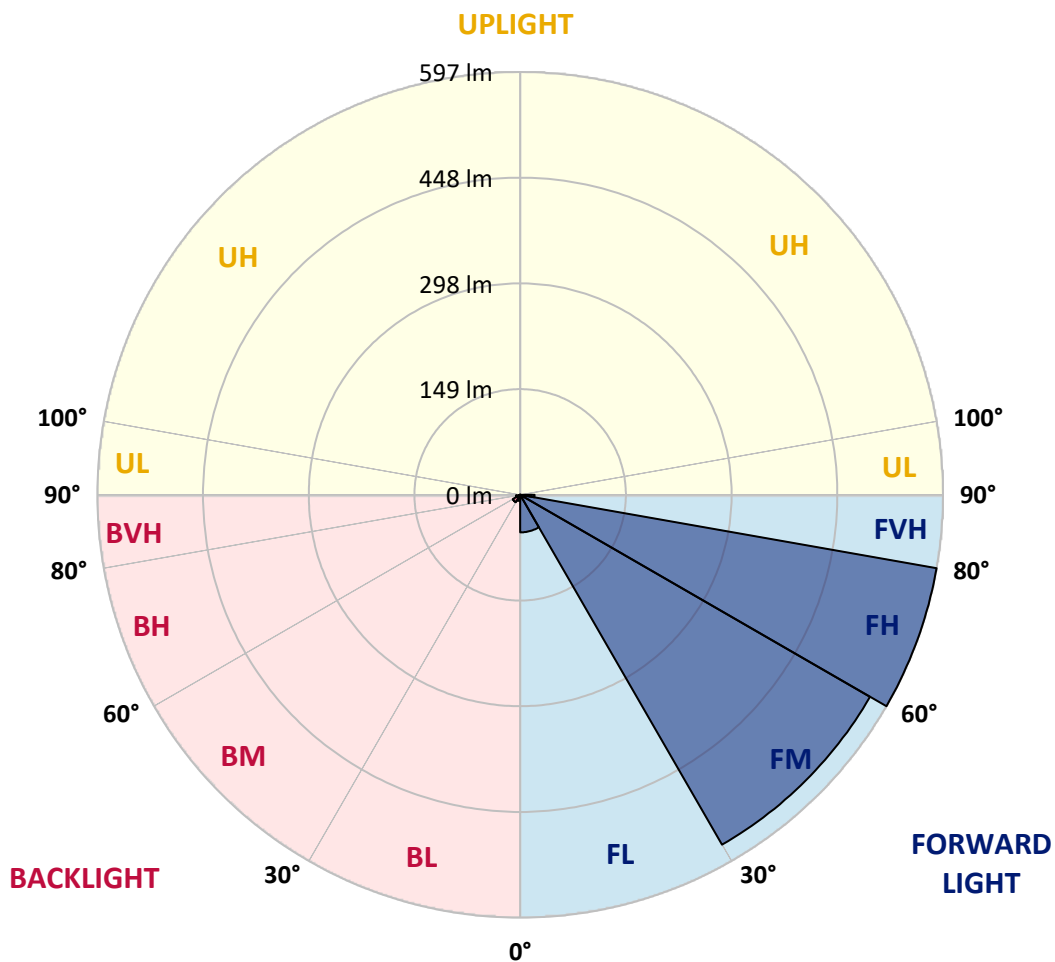
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	53.0	4.2			
FM	(30°-60°)	570.3	45.0			
FH	(60°-80°)	596.9	47.1			G0/660
FVH	(80°-90°)	20.4	1.6			G1/100
BL	(0°-30°)	8.7	0.7	B0/110		
BM	(30°-60°)	12.1	1.0	B0/220		
BH	(60°-80°)	5.9	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°	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3
2.5°	48.3	48.0	47.0	47.0	45.6	44.6	43.4	42.2	42.2	41.9	41.7
5°	63.9	62.4	62.2	59.5	57.3	54.1	51.2	47.3	46.8	46.3	46.1
7.5°	81.2	80.9	78.7	75.6	71.2	65.3	59.5	53.1	52.2	51.7	50.7
10°	103.6	102.4	99.5	94.1	87.5	79.7	70.2	60.2	59.0	58.0	57.5
12.5°	125.1	122.9	121.2	114.3	106.0	94.6	83.1	68.7	67.8	66.5	64.6
15°	145.1	143.1	140.2	134.3	125.1	110.7	97.3	79.7	77.3	75.6	74.1
17.5°	160.7	159.4	156.0	149.4	139.4	126.8	110.7	90.9	89.0	86.8	84.1
20°	175.5	173.8	168.5	159.4	148.7	139.0	126.5	105.6	102.9	100.2	97.3
22.5°	189.7	188.0	179.2	164.3	152.8	148.7	144.3	122.1	118.0	115.8	112.9
25°	209.4	205.8	192.1	168.5	153.1	156.3	163.8	143.6	139.7	136.5	131.9
27.5°	236.0	231.1	209.7	174.5	154.1	164.6	186.3	169.7	165.5	161.9	156.8
30°	266.0	262.8	237.2	189.2	161.1	176.8	211.4	202.8	198.0	193.6	187.5
32.5°	296.2	291.8	266.5	217.0	180.2	200.4	242.8	241.4	235.0	230.9	224.3
35°	322.8	320.6	301.8	262.6	223.6	241.8	284.7	286.5	280.8	276.5	269.1
37.5°	340.8	340.8	337.2	311.6	292.5	306.2	346.4	346.7	341.1	331.1	327.4
40°	350.1	352.8	365.9	370.8	369.8	387.4	427.4	423.0	418.3	413.2	401.0
42.5°	369.1	371.5	399.6	433.2	455.2	478.3	505.9	504.4	498.8	489.5	478.3
45°	401.3	404.4	437.8	491.2	536.3	569.2	586.8	580.0	574.4	565.6	559.7
47.5°	442.2	448.3	486.1	552.2	606.5	660.9	679.2	661.2	656.3	649.5	639.9
50°	485.9	491.7	531.9	607.5	669.0	733.8	764.3	733.8	726.7	724.5	713.8
52.5°	523.7	528.5	567.3	650.2	716.7	792.8	837.2	796.9	791.8	784.5	776.7
55°	546.1	550.0	586.3	670.7	749.2	846.0	907.6	872.3	864.7	861.8	850.6
57.5°	553.6	557.5	590.2	673.3	766.7	894.5	993.2	994.4	985.4	974.9	971.5
60°	553.6	558.0	585.6	666.8	783.8	946.1	1107.3	1209.0	1189.4	1187.5	1175.1
62.5°	530.7	534.9	562.7	646.5	806.7	1015.9	1266.2	1445.7	1440.1	1427.4	1406.9
65°	481.0	483.4	510.7	594.8	797.9	1080.0	1404.0	1603.2	1594.1	1569.3	1542.9
66°	458.6	460.5	486.1	565.3	769.1	1088.8	1428.4	1622.9	1608.0	1587.1	1557.3
67.5°	426.1	429.6	447.6	510.5	700.2	1058.3	1413.0	1609.0	1596.1	1570.7	1541.0
70°	284.5	282.1	345.7	391.8	533.4	862.3	1267.7	1444.7	1444.9	1433.0	1421.1
72.5°	135.1	136.5	155.1	241.1	349.1	576.1	1009.0	1153.1	1169.7	1148.2	1133.4
75°	97.0	99.2	110.4	147.5	208.2	345.7	654.1	806.5	806.9	768.9	735.0
77.5°	28.3	29.5	41.4	90.9	156.0	233.3	375.7	448.3	437.8	410.5	384.9
80°	11.7	11.7	12.2	29.0	62.7	158.5	262.8	345.2	344.0	333.5	318.4
82.5°	4.4	4.6	5.9	11.9	14.9	39.0	175.3	299.6	298.9	284.0	273.3
85°	0.5	0.5	1.5	5.1	5.6	7.3	35.1	132.1	131.4	132.1	115.8
87.5°	0.0	0.0	0.2	0.5	0.7	1.0	1.5	5.1	5.6	5.4	4.9
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°	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3
2.5°	41.7	41.2	41.2	41.0	41.0	41.0	40.7	40.5	40.5	40.2	40.0
5°	45.6	45.1	44.9	44.4	44.1	43.9	43.4	43.1	42.7	42.4	42.2
7.5°	50.2	49.3	49.0	48.3	47.5	47.0	46.6	45.8	45.3	44.4	44.1
10°	56.1	54.8	53.9	52.9	52.2	51.0	50.2	49.3	48.3	47.5	46.8
12.5°	63.6	61.9	60.5	59.5	57.8	56.3	54.8	54.1	52.2	51.2	50.0
15°	71.9	70.0	68.3	66.3	65.1	62.7	60.7	58.5	57.5	55.8	53.9
17.5°	82.6	79.5	76.8	74.8	72.4	70.0	67.8	65.6	62.7	60.7	58.3
20°	94.1	91.4	87.8	84.4	81.4	78.5	75.3	72.4	69.7	66.5	63.6
22.5°	108.7	104.8	100.4	97.0	93.1	90.0	85.6	81.7	77.3	73.1	69.7
25°	127.3	122.1	118.0	113.1	108.5	103.6	98.2	93.4	87.8	83.9	78.0
27.5°	150.2	145.3	139.7	133.4	128.7	121.4	114.3	108.2	101.7	95.6	89.0
30°	179.4	172.4	166.5	160.4	151.1	144.1	135.8	127.5	118.5	112.4	102.4
32.5°	214.5	207.0	198.2	189.4	180.9	170.9	160.7	150.4	140.4	129.2	119.0
35°	257.4	248.4	238.4	228.9	215.7	205.0	192.1	178.0	166.8	153.8	140.9
37.5°	314.2	299.4	290.6	280.6	262.8	248.2	233.8	219.7	199.9	186.3	168.0
40°	385.4	376.6	362.3	346.2	330.1	310.8	291.3	272.6	249.6	230.6	209.4
42.5°	469.0	456.1	441.5	418.3	402.0	379.3	357.2	332.3	304.3	279.9	255.0
45°	547.6	532.2	521.0	497.8	480.7	453.9	427.1	400.8	368.4	336.9	308.1
47.5°	632.4	619.7	601.2	582.4	565.1	534.9	505.9	473.9	439.8	402.5	365.2
50°	707.0	697.0	684.3	661.6	642.4	617.0	582.9	548.0	504.9	467.8	425.4
52.5°	770.4	762.6	744.8	728.7	711.4	687.5	657.0	623.6	577.0	536.3	488.1
55°	845.2	839.6	824.0	814.0	798.6	775.7	747.2	716.2	667.0	622.6	568.0
57.5°	967.8	963.5	949.8	945.7	930.5	910.6	875.4	842.3	784.8	729.7	667.3
60°	1170.9	1162.1	1142.1	1131.9	1100.0	1073.2	1027.6	982.0	912.5	842.3	767.2
62.5°	1388.4	1363.7	1325.7	1293.1	1247.7	1201.1	1140.2	1070.5	989.0	905.7	819.4
65°	1505.6	1463.7	1415.7	1363.7	1305.0	1236.5	1159.7	1076.1	988.6	900.6	809.4
66°	1519.0	1471.8	1420.8	1363.0	1297.7	1224.8	1146.8	1059.0	968.1	882.3	791.1
67.5°	1502.2	1452.7	1398.9	1334.7	1264.0	1188.5	1106.6	1015.4	927.9	840.8	752.1
70°	1384.5	1335.2	1287.2	1219.7	1144.4	1068.3	990.8	888.9	806.0	726.0	647.0
72.5°	1105.6	1072.2	1024.6	966.9	893.5	804.3	739.7	648.5	576.6	499.0	437.8
75°	690.9	643.9	585.1	511.5	455.4	383.0	345.2	276.0	235.0	199.2	164.6
77.5°	353.2	317.9	276.7	235.3	195.5	156.0	120.7	85.3	57.5	40.0	29.7
80°	291.8	260.6	226.5	188.7	153.6	119.2	85.8	58.5	37.3	24.4	19.0
82.5°	241.1	214.8	184.3	149.2	118.7	93.6	65.1	42.4	26.3	17.1	13.4
85°	102.6	93.1	71.9	57.0	42.9	31.7	22.2	14.9	10.5	8.5	7.8
87.5°	4.4	4.9	4.6	3.6	2.7	2.7	2.4	1.9	1.9	1.9	1.9
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°	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3
2.5°	40.0	39.7	39.5	39.5	39.3	39.0	37.5	36.3	34.9	33.9	32.9
5°	41.7	41.4	41.0	40.7	40.2	40.0	36.8	34.1	31.9	30.2	29.0
7.5°	43.4	43.1	42.4	41.7	41.4	41.0	35.8	32.4	29.5	27.6	26.3
10°	45.6	44.9	44.1	43.1	42.4	41.7	34.9	30.5	27.3	25.6	24.4
12.5°	48.8	47.5	46.3	45.1	44.1	42.9	34.4	28.8	25.6	23.6	22.4
15°	52.4	50.7	49.3	47.8	46.1	44.9	33.4	27.3	24.1	22.2	20.7
17.5°	55.8	53.9	51.7	49.5	47.8	46.1	32.4	25.8	22.7	20.7	19.3
20°	60.7	57.8	55.1	52.4	50.0	47.8	31.0	24.4	21.5	19.3	17.8
22.5°	66.1	62.7	59.2	55.6	52.4	49.5	29.7	23.2	20.2	18.0	16.3
25°	72.9	68.7	64.1	59.5	55.8	51.9	28.5	21.9	19.0	16.8	15.1
27.5°	82.4	76.5	71.4	65.6	60.0	55.6	27.6	21.0	17.8	15.6	13.9
30°	95.3	86.8	78.7	72.4	65.8	59.5	26.6	19.7	16.8	14.4	12.4
32.5°	109.7	99.7	90.4	80.9	72.7	65.3	25.6	18.8	15.6	13.2	11.5
35°	127.5	114.8	102.4	91.4	81.4	71.7	24.6	17.8	14.6	11.9	10.2
37.5°	153.1	137.3	120.9	106.8	93.9	80.9	23.9	16.8	13.4	10.7	9.0
40°	188.2	167.7	147.7	128.5	111.7	95.6	22.9	15.8	12.4	9.8	8.0
42.5°	226.2	201.4	175.0	153.3	130.2	109.9	21.9	14.9	11.5	8.8	7.1
45°	273.5	242.6	210.6	181.1	152.8	126.8	21.0	13.9	10.2	7.8	6.1
47.5°	325.2	285.7	249.6	212.6	178.9	147.7	19.7	13.2	9.3	6.8	5.4
50°	378.4	336.7	291.1	248.9	208.9	168.7	18.5	11.9	8.3	6.1	4.4
52.5°	435.7	386.4	339.8	287.4	240.9	196.2	17.3	11.0	7.6	5.4	3.6
55°	508.5	453.5	398.8	340.1	284.0	228.2	16.1	9.8	6.6	4.6	2.9
57.5°	600.2	534.9	467.8	401.5	333.5	270.1	15.1	8.5	5.6	3.9	2.4
60°	686.8	610.4	529.3	453.0	376.2	302.3	13.6	7.6	4.9	3.2	2.4
62.5°	731.6	644.6	557.1	472.9	391.0	313.8	12.2	6.3	4.1	2.7	2.2
65°	720.6	631.9	547.1	462.2	382.0	306.4	10.7	5.6	3.6	2.4	2.2
66°	704.8	617.0	531.7	451.0	374.5	298.6	10.0	5.4	3.4	2.4	1.9
67.5°	670.2	585.3	503.9	428.8	353.7	283.8	9.0	4.9	3.2	2.2	1.9
70°	572.4	495.4	430.3	363.5	302.3	239.2	7.3	4.1	2.7	1.9	1.9
72.5°	378.9	326.4	283.0	243.5	203.6	158.0	6.1	3.4	2.2	1.9	1.7
75°	142.9	129.2	110.9	99.7	87.0	76.3	4.9	2.2	1.7	1.7	1.7
77.5°	25.3	23.4	20.7	19.0	17.6	16.1	3.9	1.5	1.5	1.7	1.7
80°	17.1	15.8	14.4	13.2	12.2	11.0	2.7	1.2	1.5	1.5	1.7
82.5°	12.2	11.5	10.7	9.8	9.0	8.0	1.7	1.2	1.5	1.5	1.5
85°	7.3	6.8	6.3	5.9	5.1	4.9	1.2	1.2	1.2	1.5	1.5
87.5°	1.9	1.7	1.9	1.9	1.5	1.7	1.0	1.0	1.0	1.2	1.2
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°	38.3	38.3	38.3	38.3	38.3
2.5°	32.4	32.4	31.9	32.7	32.7
5°	28.0	28.0	27.8	28.0	28.0
7.5°	25.6	25.3	25.3	25.3	25.6
10°	23.4	23.2	23.2	23.2	23.2
12.5°	21.5	21.2	21.0	21.2	21.2
15°	19.7	19.3	19.3	19.3	19.3
17.5°	18.3	17.8	17.6	17.6	17.6
20°	16.8	16.1	16.1	16.1	16.1
22.5°	15.4	14.6	14.6	14.6	14.6
25°	13.9	13.2	13.2	13.2	13.2
27.5°	12.7	11.9	11.9	11.9	11.9
30°	11.2	10.7	10.7	11.0	10.7
32.5°	10.2	9.5	9.5	9.8	9.8
35°	9.0	8.5	8.5	8.5	8.5
37.5°	7.8	7.3	7.3	7.3	7.3
40°	6.8	6.3	6.1	6.3	6.3
42.5°	5.9	5.4	5.1	5.1	5.1
45°	5.1	4.4	4.1	4.4	4.4
47.5°	4.1	3.6	3.6	3.9	3.9
50°	3.2	3.2	3.4	3.9	3.9
52.5°	2.9	2.9	3.4	3.9	3.9
55°	2.7	2.9	3.4	3.6	3.9
57.5°	2.4	2.9	3.4	3.6	3.6
60°	2.4	2.7	3.2	3.6	3.6
62.5°	2.2	2.4	2.9	3.4	3.4
65°	2.2	2.4	2.9	3.4	3.4
66°	2.2	2.4	2.9	3.4	3.4
67.5°	2.2	2.4	2.9	3.4	3.4
70°	2.2	2.4	2.9	3.2	3.2
72.5°	1.9	2.2	2.7	3.2	3.2
75°	1.9	2.2	2.7	3.2	3.2
77.5°	1.9	2.2	2.7	3.2	3.2
80°	1.9	2.2	2.7	2.9	3.2
82.5°	1.7	2.2	2.4	2.9	2.9
85°	1.7	1.9	2.4	2.7	2.9
87.5°	1.5	1.7	1.9	2.4	2.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)