

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: P146578

Luminaire Tested: **LDRL-T3-E01-E-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P146578
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33695)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: LDRL-T3-E01-E-8030
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 3
Light Source: (21) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2520 lumens
Efficiency: N/A
Efficacy: 102.0 lumens/watt
Luminous Opening: Rectangular (W 0.17' x L: 1' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

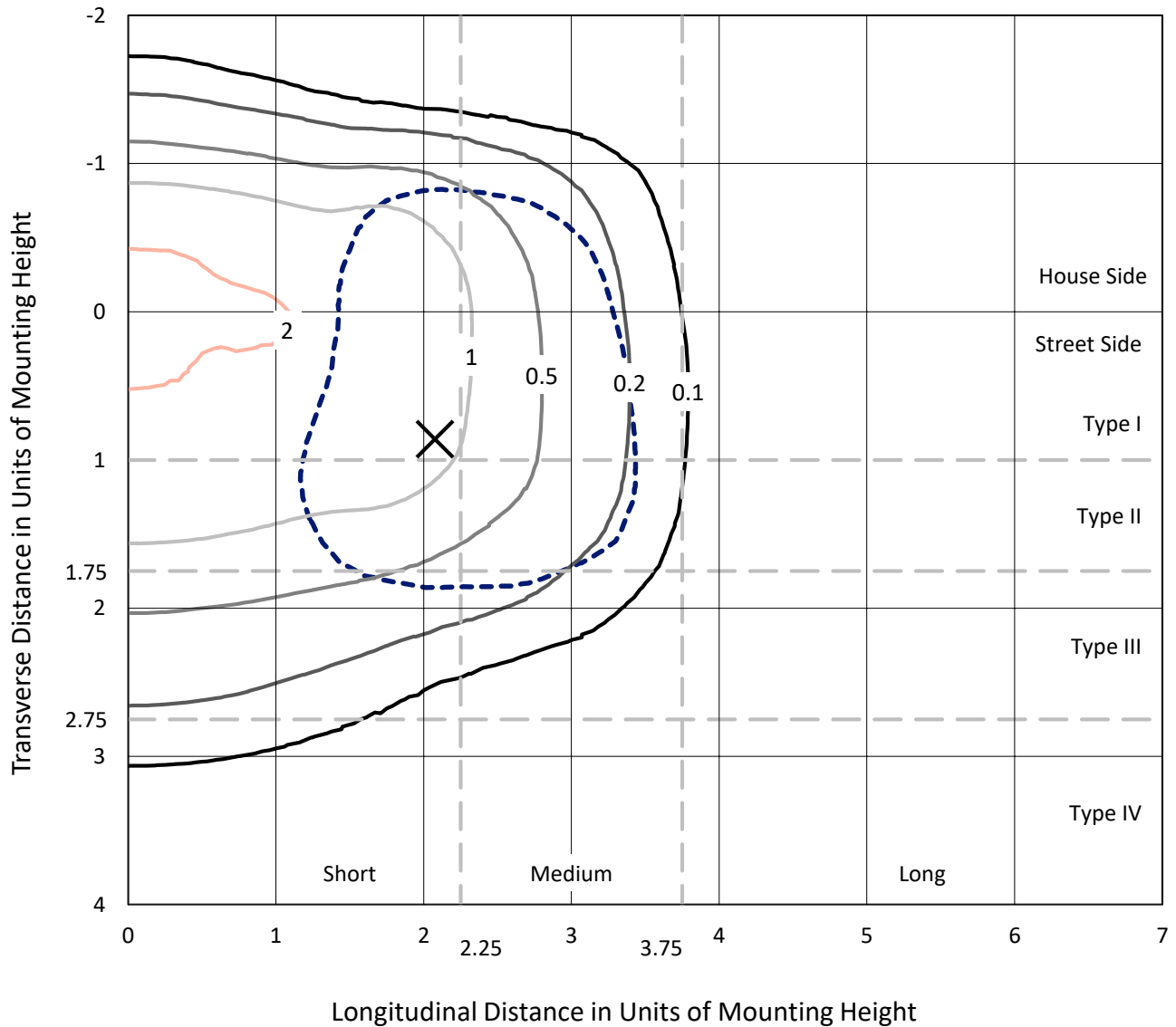
Input Watts (W): 24.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

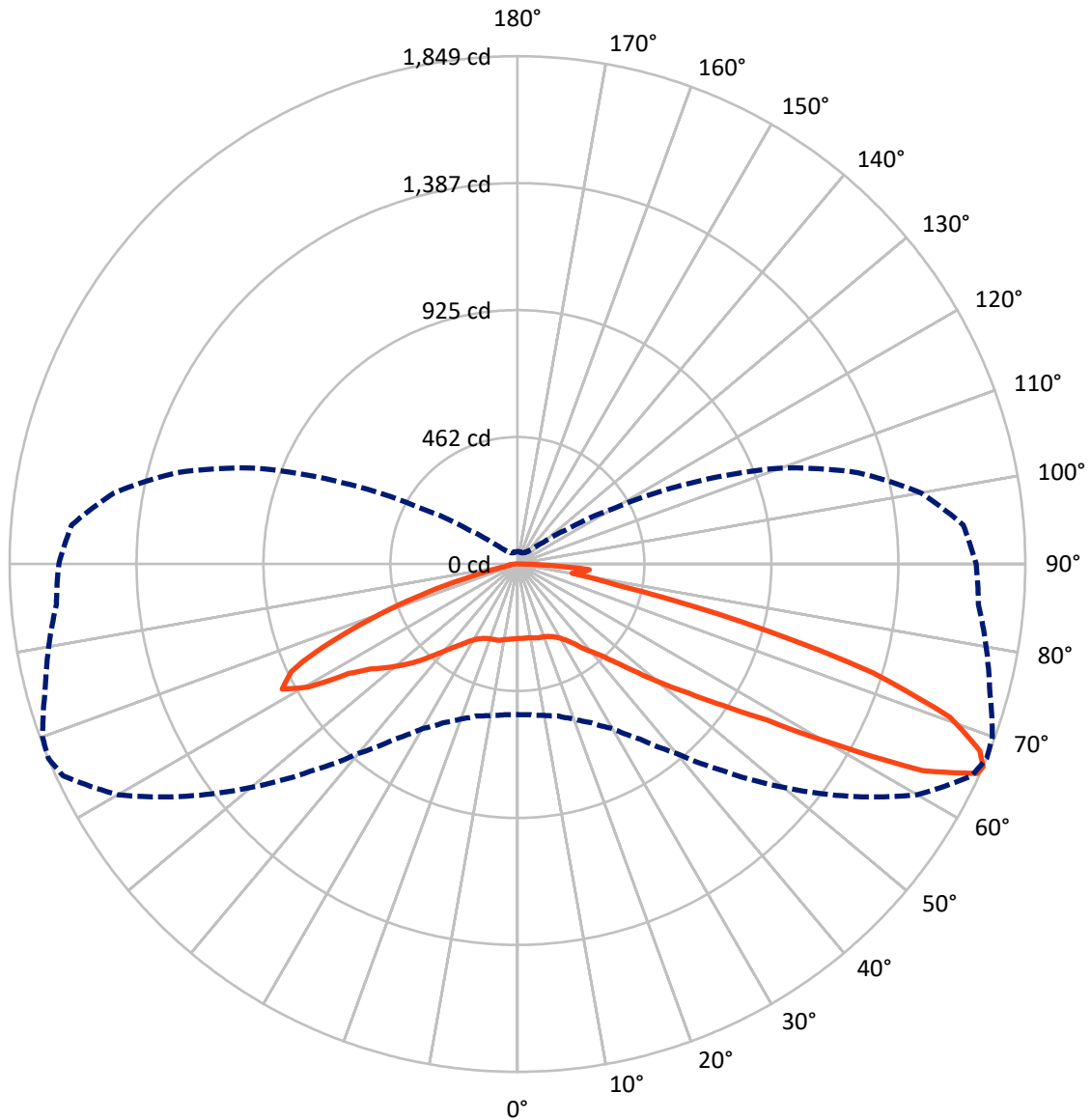
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.7 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67.5-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	856.1	0.0	856.1
	% Fixture	34.0	0.0	34.0
Street Side	Lumens	1663.9	0.0	1663.9
	% Fixture	66.0	0.0	66.0
Total	Lumens	2520.0	0.0	2520.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.1	1.0
10°-20°	77.2	3.1
20°-30°	132.7	5.3
30°-40°	213.5	8.5
40°-50°	351.9	14.0
50°-60°	551.6	21.9
60°-70°	763.3	30.3
70°-80°	345.4	13.7
80°-90°	58.3	2.3
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°	2520.0	100.0
0°-180°	2520.0	100.0



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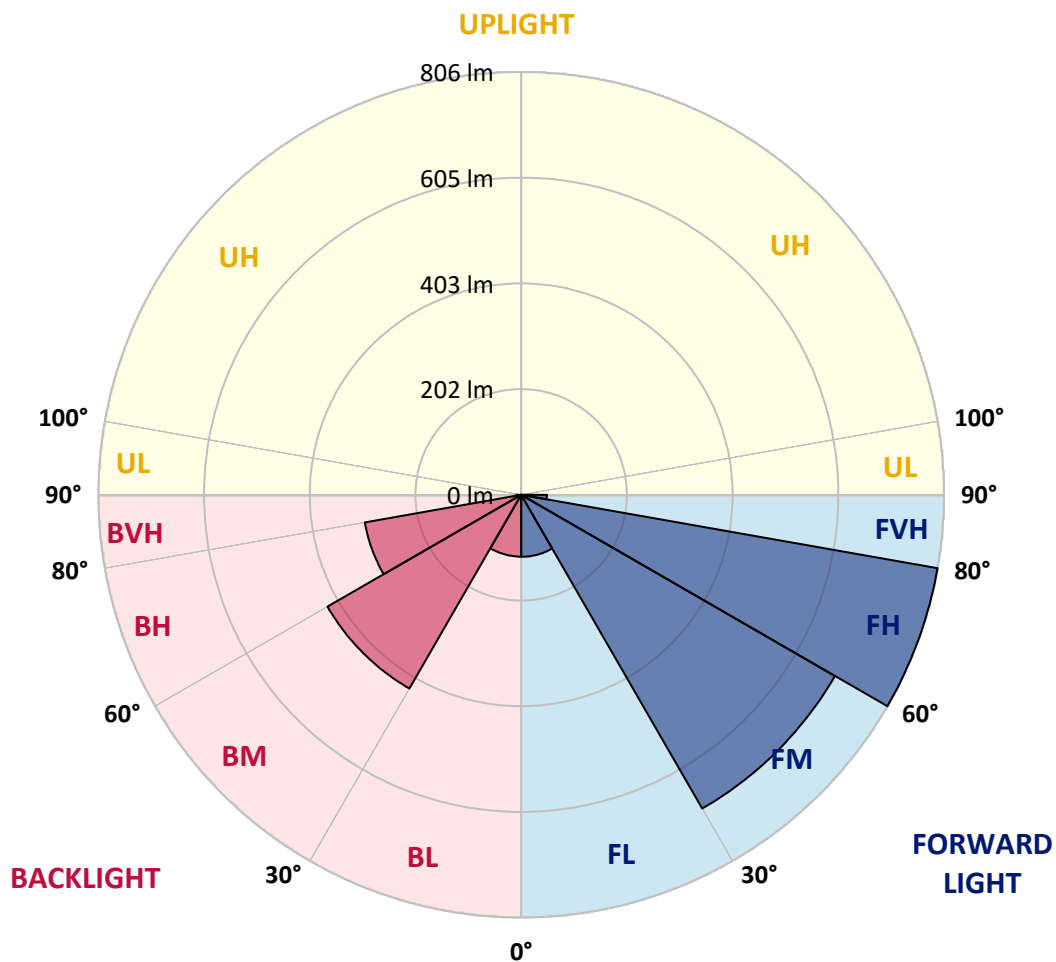
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	118.2	4.7			
FM	(30°-60°)	690.6	27.4			
FH	(60°-80°)	806.1	32.0			G1/1800
FVH	(80°-90°)	49.0	1.9			G1/100
BL	(0°-30°)	117.8	4.7	B1/500		
BM	(30°-60°)	426.4	16.9	B1/1000		
BH	(60°-80°)	302.7	12.0	B1/500		G1/500
BVH	(80°-90°)	9.3	0.4			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	271.3	271.3	271.3	271.3	271.3	271.3	271.3	271.3	271.3	271.3	271.3
2.5°	270.9	270.8	270.6	270.6	270.4	270.6	270.8	270.9	270.8	270.9	270.8
5°	270.4	270.4	270.2	270.2	270.2	270.2	270.4	270.6	270.4	270.8	270.4
7.5°	268.2	269.2	268.9	269.2	269.6	269.9	270.1	270.4	270.9	271.3	270.9
10°	265.4	265.9	266.0	266.4	267.0	267.9	268.6	269.4	270.6	270.9	271.3
12.5°	260.1	260.8	261.3	262.0	263.0	264.3	265.5	266.9	268.9	270.2	271.4
15°	256.2	257.1	257.2	258.1	259.1	260.6	262.1	264.2	266.9	269.2	271.6
17.5°	258.8	259.1	258.8	258.8	259.1	259.8	261.0	262.6	265.5	268.4	271.3
20°	266.4	266.4	266.0	265.9	265.5	264.8	264.7	264.5	266.4	268.6	271.1
22.5°	273.6	273.6	273.5	274.1	274.0	274.0	273.5	272.6	271.8	271.4	273.1
25°	278.2	278.9	279.2	280.2	280.9	281.9	282.2	282.1	280.9	278.9	278.3
27.5°	285.6	286.1	286.5	287.6	289.0	290.2	291.3	292.9	292.9	291.0	288.5
30°	300.0	299.3	299.6	300.0	301.1	302.8	304.3	306.4	307.4	306.7	303.3
32.5°	313.3	314.0	314.3	315.3	316.5	319.0	320.9	323.2	325.4	325.8	324.1
35°	332.9	332.5	332.0	335.6	336.9	339.8	342.0	345.4	347.0	348.6	347.6
37.5°	363.8	362.7	362.1	363.1	364.9	366.8	370.0	372.5	375.4	379.0	377.8
40°	407.5	409.5	406.6	408.0	409.5	405.3	408.2	410.5	415.4	415.6	415.4
42.5°	464.4	465.9	465.2	466.1	463.4	462.0	460.8	462.0	468.1	467.2	463.2
45°	521.2	523.4	522.9	523.3	528.5	526.3	528.2	528.5	534.8	533.1	530.0
47.5°	569.9	573.6	574.4	577.5	584.5	590.3	598.2	604.1	607.2	609.2	611.6
50°	608.3	611.0	615.8	623.4	633.7	643.6	661.5	673.2	683.8	691.2	698.8
52.5°	633.8	636.9	644.1	655.6	670.5	688.7	709.6	733.9	756.4	769.6	780.9
55°	644.3	647.3	656.3	671.3	691.1	714.4	744.4	778.7	808.5	838.8	856.1
57.5°	638.2	641.6	651.9	668.8	692.6	723.1	760.4	802.5	846.2	891.9	926.9
60°	620.3	623.4	635.0	652.6	679.8	714.2	758.9	811.6	873.0	940.9	1007.2
62.5°	595.7	600.2	610.5	628.4	655.4	693.1	744.1	812.6	900.7	1010.1	1139.2
65°	564.3	567.7	576.8	591.0	620.7	660.0	713.8	797.7	912.9	1068.0	1252.3
66°	548.1	551.3	559.7	573.1	600.2	638.1	691.9	777.8	899.4	1067.6	1264.3
67.5°	519.6	521.1	527.2	540.3	558.0	592.0	641.9	722.5	842.1	1022.6	1230.9
70°	435.8	438.0	443.9	450.7	457.3	469.4	504.4	557.5	653.2	826.3	1024.9
72.5°	301.5	304.8	311.3	323.8	334.1	349.4	363.1	380.8	412.5	532.7	733.3
75°	217.9	219.1	228.6	250.5	271.3	302.0	329.2	337.8	327.0	325.1	430.8
77.5°	130.0	131.7	145.3	167.4	189.1	230.7	286.5	329.5	353.3	344.9	326.1
80°	54.7	57.1	65.2	70.9	88.8	123.7	178.8	246.3	309.1	347.7	338.9
82.5°	17.6	20.4	24.1	29.2	34.4	46.1	71.4	106.8	168.8	251.7	309.4
85°	6.4	6.6	9.1	12.7	14.0	16.2	20.8	32.1	57.1	94.4	175.6
87.5°	2.5	3.0	3.5	4.9	5.1	5.2	5.9	7.6	7.4	6.4	33.3
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):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	271.3	271.3	271.3	271.3	271.3	271.3	271.3	271.3	271.3	271.3	271.3
2.5°	270.9	271.3	271.1	271.3	271.3	270.9	270.9	271.6	271.1	271.4	271.4
5°	270.8	271.1	270.9	271.3	271.3	271.1	271.1	272.1	271.9	272.4	272.8
7.5°	271.4	271.6	271.4	271.4	271.9	271.8	271.9	272.3	273.1	274.0	274.6
10°	272.3	272.6	273.1	273.3	274.0	273.8	274.3	274.8	275.6	276.5	277.3
12.5°	273.5	274.5	276.0	276.3	277.0	277.5	278.3	278.9	279.5	280.9	281.9
15°	274.5	276.3	278.2	278.9	279.5	280.2	281.0	281.6	282.7	283.9	285.1
17.5°	274.8	277.0	279.4	280.2	280.9	282.1	283.1	284.1	285.4	287.0	288.3
20°	275.0	278.0	281.0	282.1	283.6	285.3	287.0	287.8	289.7	291.5	292.7
22.5°	276.5	280.2	284.4	286.3	287.8	290.8	293.0	294.4	296.6	298.1	298.6
25°	280.7	284.6	289.7	292.5	295.1	299.4	302.1	304.7	305.9	307.9	307.4
27.5°	288.3	291.3	297.9	301.8	305.0	310.8	316.0	318.4	320.2	321.2	320.0
30°	301.3	302.5	309.7	314.5	319.9	328.8	334.6	337.6	340.0	340.1	337.1
32.5°	320.7	318.9	325.3	332.0	339.1	349.9	357.7	360.9	362.7	362.9	356.2
35°	347.0	343.8	349.2	355.8	364.6	378.8	388.6	392.3	395.2	393.8	383.8
37.5°	380.3	380.1	382.7	391.1	401.1	419.3	429.6	431.6	431.4	427.4	412.4
40°	417.3	414.2	414.6	420.6	432.1	456.1	470.4	473.8	472.6	466.7	447.1
42.5°	463.9	462.5	457.9	461.2	471.8	501.0	518.4	521.8	522.8	513.0	489.9
45°	529.2	528.0	517.9	518.5	526.3	557.0	575.1	580.7	580.8	571.6	541.5
47.5°	608.3	607.3	595.5	592.1	596.0	623.4	645.8	647.0	647.3	634.5	603.3
50°	698.1	695.3	686.3	682.8	678.2	708.4	726.5	726.3	724.5	710.3	675.2
52.5°	784.9	791.3	787.9	781.0	781.2	803.0	820.0	810.6	811.8	798.2	757.9
55°	877.6	894.0	906.3	908.8	907.6	918.8	928.2	911.3	905.1	902.9	860.0
57.5°	976.0	1017.9	1055.8	1071.7	1065.6	1086.0	1094.5	1076.9	1077.3	1094.5	1057.5
60°	1107.5	1213.2	1308.9	1338.6	1352.4	1386.2	1371.1	1370.1	1396.6	1418.9	1350.4
62.5°	1307.0	1482.0	1634.8	1656.9	1668.1	1675.7	1668.9	1650.5	1677.9	1680.6	1574.9
65°	1458.2	1663.7	1811.4	1839.1	1837.0	1798.4	1760.9	1724.1	1723.8	1696.8	1560.7
66°	1474.6	1680.9	1824.9	1849.4	1840.4	1780.8	1733.2	1685.4	1670.1	1629.6	1491.5
67.5°	1438.8	1650.8	1793.8	1815.8	1796.7	1706.0	1641.2	1576.6	1553.4	1497.1	1356.3
70°	1230.0	1448.5	1639.7	1671.4	1648.8	1528.5	1432.4	1361.4	1298.4	1242.9	1126.7
72.5°	953.7	1117.1	1319.5	1352.6	1354.4	1260.2	1152.0	1083.9	1010.6	954.9	867.8
75°	625.6	749.1	860.4	849.2	852.4	778.3	713.8	657.1	590.8	546.9	505.4
77.5°	365.6	409.8	399.7	372.0	348.7	274.1	196.1	134.7	117.5	122.5	138.2
80°	317.8	293.0	229.4	201.7	183.5	124.6	67.0	47.3	41.5	42.0	44.6
82.5°	342.2	355.0	291.3	239.9	209.1	146.7	78.8	39.3	28.4	33.1	36.5
85°	265.5	337.9	311.6	263.3	221.5	156.0	80.5	25.0	16.9	22.6	28.5
87.5°	75.6	119.7	95.7	84.6	68.2	46.6	19.2	10.0	9.1	11.8	16.4
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	271.3	271.3	271.3	271.3	271.3	271.3	271.3	271.3	271.3	271.3	271.3
2.5°	271.6	271.6	272.1	272.3	272.4	272.4	272.8	272.8	272.9	273.6	273.5
5°	273.3	273.8	274.5	274.8	275.3	275.5	276.0	276.0	276.5	277.0	276.8
7.5°	275.3	275.8	276.3	276.8	277.3	278.0	277.8	277.7	277.5	277.2	276.8
10°	278.2	278.7	279.2	279.0	278.7	278.3	277.0	275.5	274.8	273.5	272.4
12.5°	282.9	283.4	282.9	281.6	279.7	277.5	274.6	272.1	270.6	268.6	267.4
15°	286.5	287.0	285.9	283.6	280.5	277.7	273.8	270.6	267.9	265.7	264.0
17.5°	289.2	288.8	286.6	283.9	280.7	278.3	274.8	271.3	268.1	265.0	262.6
20°	293.0	291.2	288.0	284.6	281.4	279.4	276.5	273.3	269.9	265.5	262.5
22.5°	298.1	294.7	290.5	287.1	284.1	282.1	279.2	276.2	272.9	267.9	263.7
25°	305.4	300.0	295.1	291.5	288.8	286.8	283.2	280.0	276.5	271.4	266.0
27.5°	315.5	307.7	302.7	299.1	296.4	294.0	289.5	285.6	281.0	276.0	269.6
30°	328.7	319.2	313.6	310.6	307.7	304.3	299.4	293.7	287.8	281.0	274.1
32.5°	345.0	334.4	329.2	326.1	322.4	317.8	311.4	303.8	295.1	286.1	277.5
35°	368.3	356.2	350.4	345.2	339.8	333.0	323.4	312.4	300.8	289.2	278.5
37.5°	391.4	380.1	373.0	367.6	359.2	348.2	334.9	319.7	304.2	289.3	276.5
40°	424.2	411.0	402.8	393.1	379.5	362.4	343.0	322.6	303.3	285.4	270.2
42.5°	464.4	449.3	437.0	419.6	398.4	373.7	346.9	320.9	297.4	276.8	260.1
45°	515.2	495.6	475.0	447.7	415.1	380.6	346.7	315.0	287.3	264.0	247.5
47.5°	574.4	546.9	512.3	470.6	426.0	382.3	341.3	304.3	272.1	246.4	227.4
50°	635.4	595.5	546.4	488.3	431.6	378.1	329.3	287.0	252.2	223.0	202.4
52.5°	710.5	648.7	577.3	500.3	429.3	365.6	309.4	262.5	225.3	196.8	173.2
55°	799.9	709.8	606.7	506.9	418.8	343.2	279.2	230.4	191.4	165.4	144.2
57.5°	948.0	805.5	656.8	516.7	398.2	309.7	242.4	191.9	155.3	133.2	116.1
60°	1203.2	1001.8	762.8	540.8	369.7	262.1	195.6	150.4	120.2	102.5	90.5
62.5°	1381.3	1120.8	819.9	532.6	321.2	206.4	144.7	107.5	87.6	76.0	67.9
65°	1346.7	1073.9	751.2	452.4	251.7	146.0	96.2	72.8	61.4	54.2	50.1
66°	1284.6	1022.1	698.8	406.1	218.3	121.7	79.3	60.3	52.8	47.6	44.9
67.5°	1171.3	914.7	604.8	325.9	163.4	89.8	60.3	46.9	42.9	40.2	38.3
70°	969.7	723.3	416.4	192.6	86.4	50.3	38.3	34.6	32.7	31.6	31.4
72.5°	743.6	518.9	240.9	93.2	46.3	33.4	29.4	28.0	27.3	27.0	27.0
75°	459.3	292.7	107.7	46.8	31.9	27.3	25.5	24.8	24.6	24.6	24.6
77.5°	161.5	102.0	48.3	34.3	28.0	24.6	23.1	22.8	23.1	23.1	23.1
80°	44.6	39.3	34.9	30.4	25.3	22.8	21.4	21.3	21.9	22.1	21.4
82.5°	34.8	32.7	29.9	27.2	23.1	20.8	20.1	20.4	20.8	20.3	19.2
85°	29.7	28.4	20.9	20.9	18.7	18.1	17.9	18.2	18.1	16.7	15.4
87.5°	16.9	14.9	11.3	12.3	13.2	13.5	11.3	12.2	12.0	10.6	10.0
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):

	160°	165°	170°	175°	180°
0°	271.3	271.3	271.3	271.3	271.3
2.5°	273.8	273.8	274.1	274.1	274.0
5°	277.2	277.2	277.7	277.3	277.5
7.5°	276.5	275.8	275.8	275.5	275.3
10°	271.8	270.6	269.9	270.2	269.7
12.5°	266.4	265.4	264.7	264.5	264.3
15°	263.0	261.8	261.3	261.0	261.0
17.5°	261.1	259.8	259.1	258.6	258.4
20°	260.3	258.6	257.6	257.1	256.7
22.5°	260.6	258.6	257.2	256.6	256.2
25°	262.0	259.4	257.8	256.9	256.4
27.5°	264.3	261.0	259.1	257.9	257.2
30°	267.2	262.5	259.8	258.1	257.4
32.5°	269.1	262.6	259.3	256.7	256.1
35°	268.7	260.8	256.4	253.2	252.7
37.5°	265.4	255.9	250.5	246.3	245.8
40°	258.1	248.5	242.2	238.0	237.0
42.5°	248.0	238.0	231.3	227.4	226.0
45°	233.1	221.0	214.7	211.5	209.6
47.5°	212.2	200.7	193.8	191.1	188.7
50°	188.4	175.7	170.7	167.6	164.9
52.5°	160.4	149.6	145.7	142.8	140.6
55°	133.2	125.6	121.0	118.0	118.2
57.5°	107.0	102.5	99.9	96.7	97.1
60°	84.2	80.3	80.3	78.3	77.6
62.5°	64.3	62.8	62.3	61.6	60.4
65°	48.8	48.8	49.0	49.0	48.3
66°	43.9	44.4	45.1	45.1	44.2
67.5°	38.0	38.7	39.3	39.7	39.7
70°	31.4	32.2	32.6	32.9	32.7
72.5°	27.5	28.2	28.2	28.4	28.0
75°	25.0	25.3	25.5	25.2	25.0
77.5°	23.1	23.3	23.1	23.0	22.8
80°	20.9	20.8	20.3	19.6	19.4
82.5°	18.1	17.4	17.0	16.0	15.9
85°	14.5	13.7	13.0	11.6	11.0
87.5°	9.6	9.3	8.8	6.4	5.2
90°	0.0	0.0	0.0	0.0	0.0

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