

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: P146584

Luminaire Tested: **LDRL-T3-F01-E-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P146584
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-F01-E-7030
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 3
Light Source: (7) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2251.3 lumens
Efficiency: N/A
Efficacy: 86.9 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

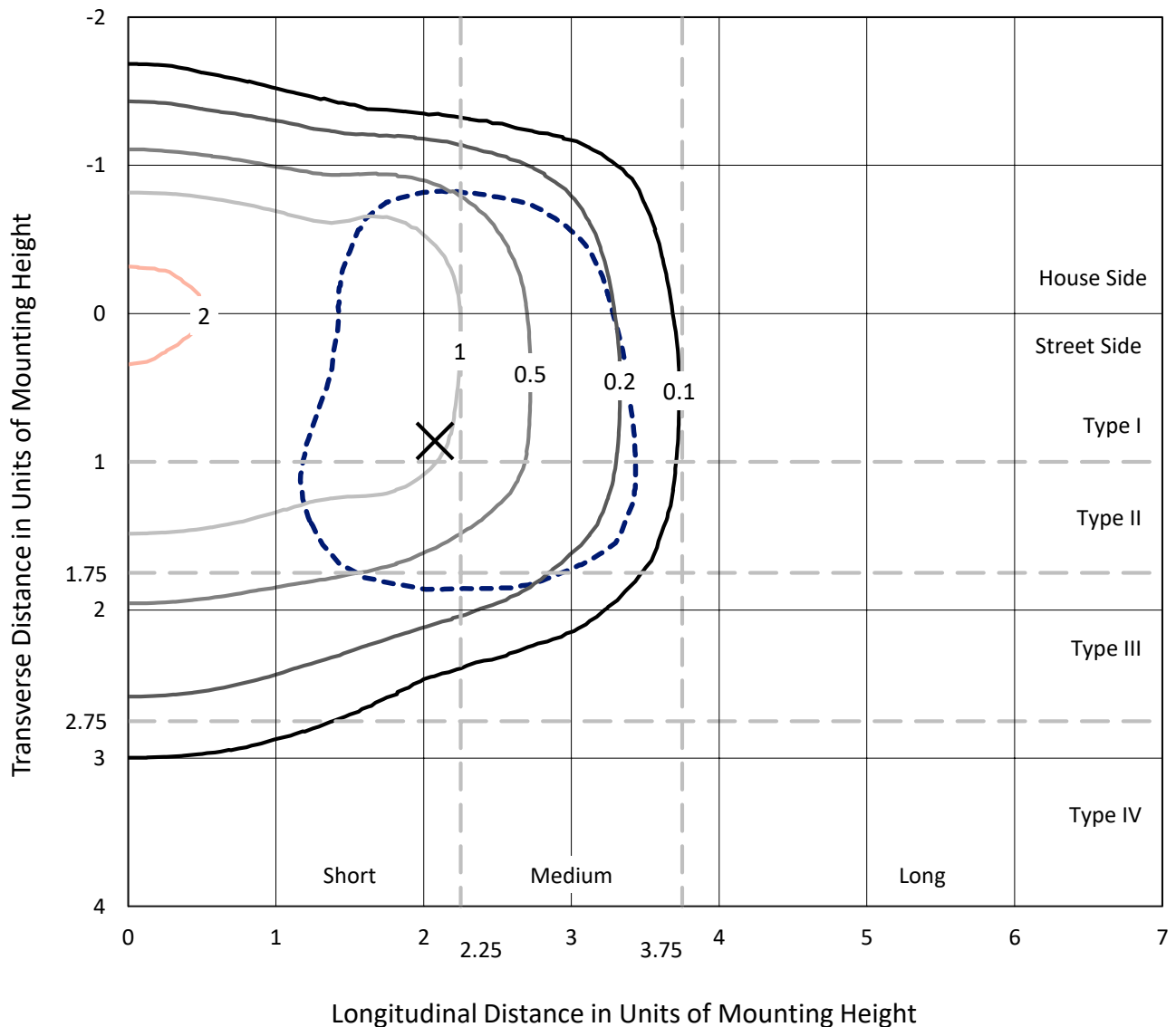
Input Watts (W): 25.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

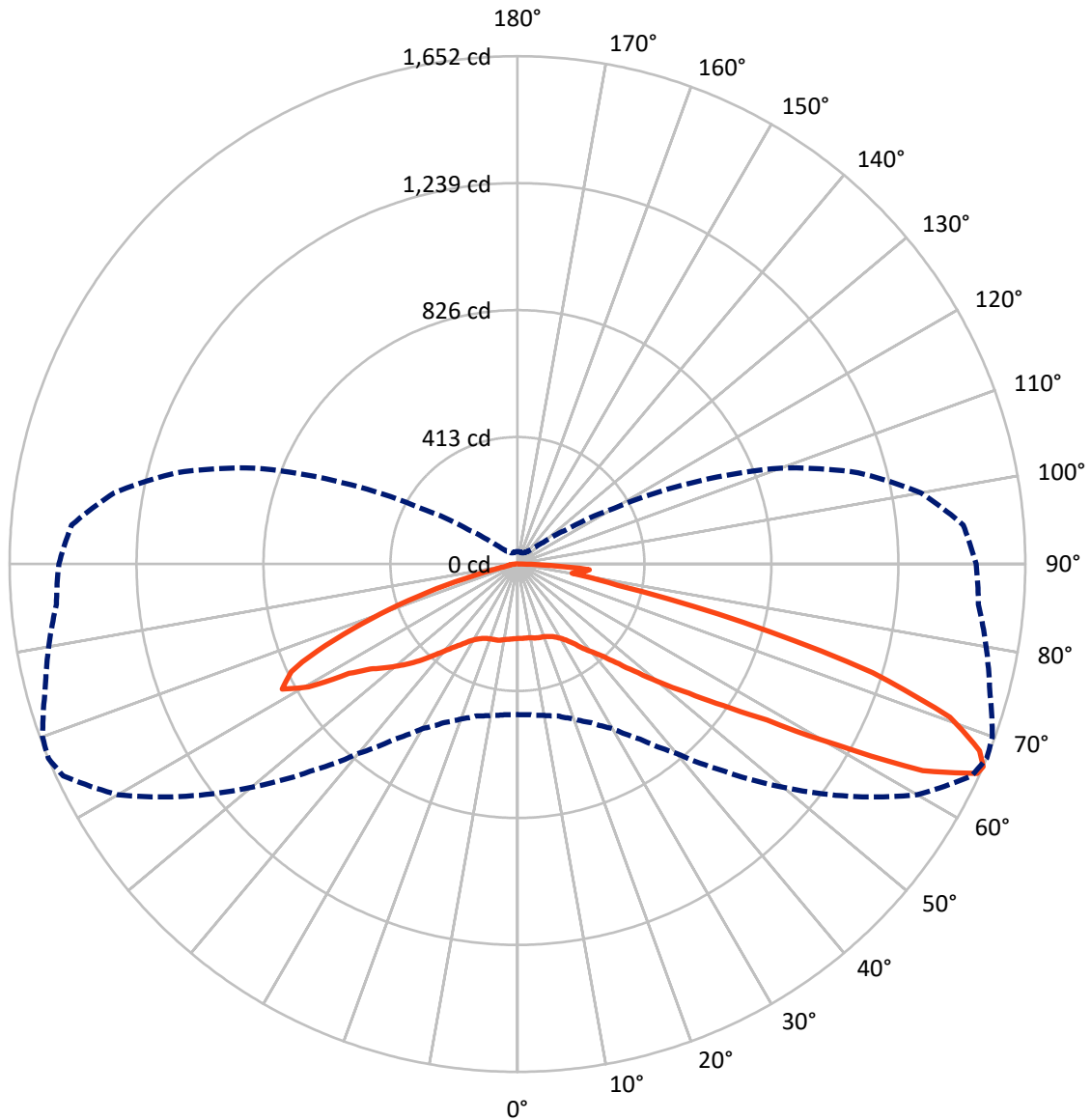
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.4 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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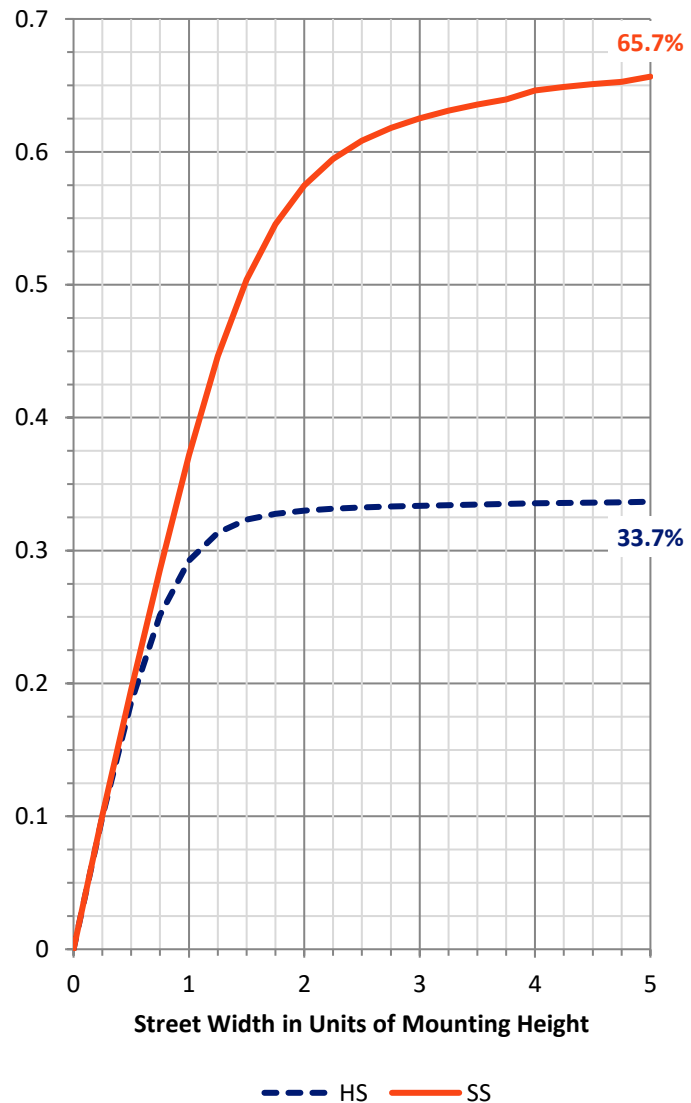
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	764.8	0.0	764.8
	% Fixture	34.0	0.0	34.0
Street Side	Lumens	1486.4	0.0	1486.4
	% Fixture	66.0	0.0	66.0
Total	Lumens	2251.3	0.0	2251.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.3	1.0
10°-20°	69.0	3.1
20°-30°	118.6	5.3
30°-40°	190.7	8.5
40°-50°	314.4	14.0
50°-60°	492.8	21.9
60°-70°	681.9	30.3
70°-80°	308.6	13.7
80°-90°	52.1	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°	2251.3	100.0
0°-180°	2251.3	100.0



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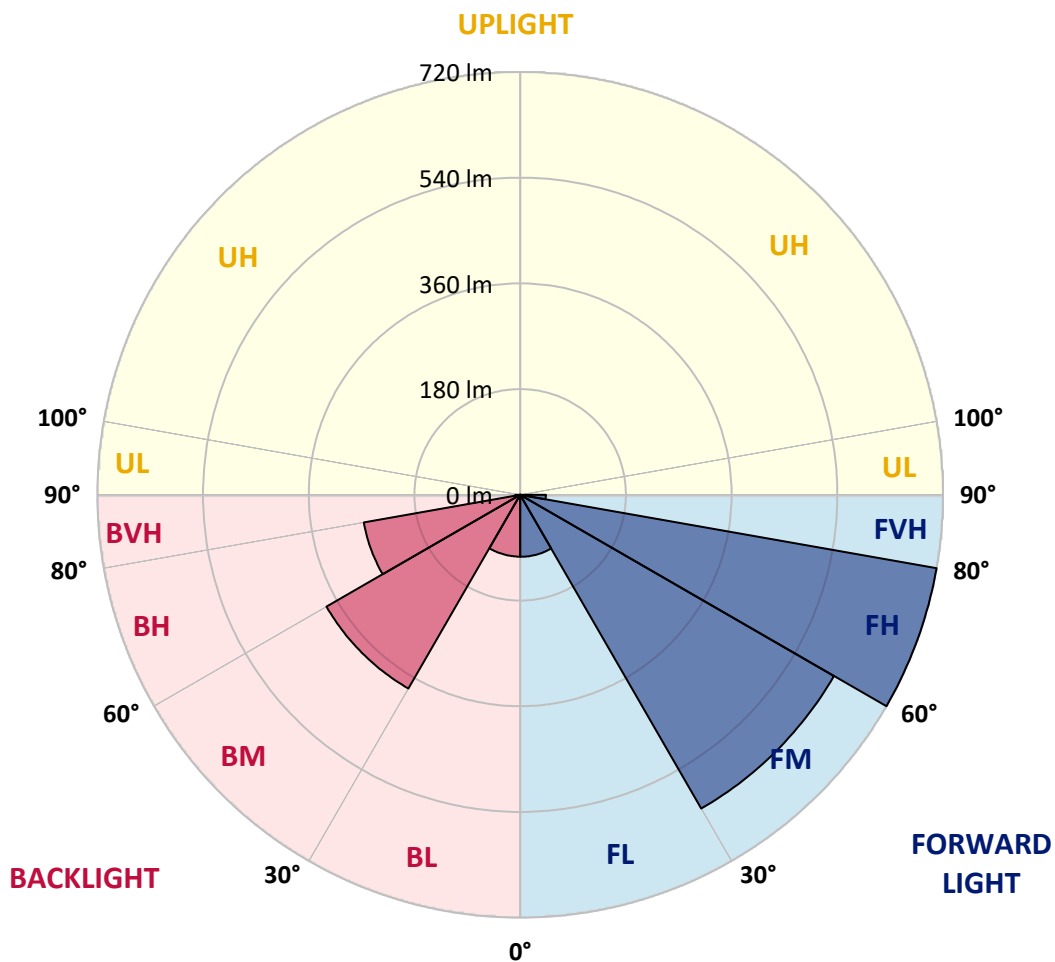
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	105.6	4.7			
FM	(30°-60°)	616.9	27.4			
FH	(60°-80°)	720.2	32.0			G1/1800
FVH	(80°-90°)	43.8	1.9			G1/100
BL	(0°-30°)	105.2	4.7	B0/110		
BM	(30°-60°)	380.9	16.9	B1/1000		
BH	(60°-80°)	270.4	12.0	B1/500		G1/500
BVH	(80°-90°)	8.3	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°	242.3	242.3	242.3	242.3	242.3	242.3	242.3	242.3	242.3	242.3	242.3
2.5°	242.0	241.9	241.7	241.7	241.6	241.7	241.9	242.0	241.9	242.0	241.9
5°	241.6	241.6	241.4	241.4	241.4	241.4	241.6	241.7	241.6	241.9	241.6
7.5°	239.6	240.5	240.2	240.5	240.8	241.1	241.3	241.6	242.0	242.3	242.0
10°	237.1	237.5	237.7	238.0	238.6	239.3	239.9	240.7	241.7	242.0	242.3
12.5°	232.4	233.0	233.4	234.0	234.9	236.2	237.2	238.4	240.2	241.4	242.5
15°	228.9	229.7	229.8	230.6	231.5	232.8	234.2	236.0	238.4	240.5	242.6
17.5°	231.2	231.5	231.2	231.2	231.5	232.1	233.1	234.6	237.2	239.8	242.3
20°	238.0	238.0	237.7	237.5	237.2	236.6	236.5	236.3	238.0	239.9	242.2
22.5°	244.4	244.4	244.3	244.9	244.7	244.7	244.3	243.5	242.8	242.5	244.0
25°	248.5	249.1	249.4	250.3	250.9	251.8	252.1	252.0	250.9	249.1	248.7
27.5°	255.2	255.6	255.9	257.0	258.2	259.2	260.3	261.6	261.6	260.0	257.7
30°	268.0	267.4	267.7	268.0	269.0	270.5	271.9	273.7	274.6	274.0	271.0
32.5°	279.9	280.5	280.8	281.7	282.7	285.0	286.7	288.8	290.7	291.0	289.5
35°	297.4	297.1	296.6	299.8	301.0	303.6	305.5	308.5	310.0	311.4	310.5
37.5°	325.0	324.1	323.5	324.4	326.0	327.7	330.6	332.8	335.4	338.5	337.5
40°	364.0	365.8	363.3	364.5	365.8	362.1	364.6	366.7	371.1	371.3	371.1
42.5°	414.8	416.2	415.6	416.4	413.9	412.7	411.7	412.7	418.2	417.4	413.8
45°	465.7	467.6	467.2	467.5	472.2	470.2	471.8	472.2	477.7	476.2	473.5
47.5°	509.1	512.4	513.2	515.9	522.2	527.3	534.4	539.7	542.4	544.2	546.3
50°	543.5	545.9	550.1	556.9	566.1	575.0	591.0	601.4	610.9	617.5	624.3
52.5°	566.2	569.0	575.4	585.7	599.0	615.3	634.0	655.7	675.7	687.5	697.6
55°	575.6	578.3	586.3	599.7	617.4	638.2	665.0	695.6	722.3	749.3	764.9
57.5°	570.2	573.2	582.4	597.5	618.7	646.0	679.3	716.9	756.0	796.8	828.0
60°	554.2	556.9	567.3	583.0	607.3	638.0	678.0	725.0	779.9	840.6	899.8
62.5°	532.2	536.2	545.4	561.4	585.6	619.2	664.7	725.9	804.7	902.4	1017.7
65°	504.1	507.1	515.3	527.9	554.5	589.6	637.7	712.7	815.5	954.1	1118.8
66°	489.6	492.5	500.0	512.0	536.2	570.0	618.1	694.9	803.5	953.8	1129.5
67.5°	464.2	465.5	470.9	482.7	498.5	528.9	573.5	645.4	752.3	913.5	1099.6
70°	389.4	391.3	396.6	402.6	408.5	419.4	450.6	498.1	583.6	738.2	915.6
72.5°	269.3	272.3	278.1	289.2	298.4	312.2	324.4	340.2	368.6	475.9	655.1
75°	194.7	195.7	204.2	223.8	242.3	269.8	294.1	301.7	292.1	290.4	384.8
77.5°	116.1	117.6	129.8	149.6	168.9	206.1	255.9	294.4	315.6	308.1	291.3
80°	48.9	51.0	58.2	63.3	79.3	110.5	159.7	220.0	276.1	310.6	302.8
82.5°	15.7	18.2	21.6	26.1	30.8	41.2	63.8	95.5	150.8	224.8	276.4
85°	5.7	5.9	8.1	11.3	12.5	14.5	18.5	28.7	51.0	84.3	156.8
87.5°	2.3	2.7	3.2	4.4	4.5	4.7	5.3	6.8	6.6	5.7	29.7
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):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	242.3	242.3	242.3	242.3	242.3	242.3	242.3	242.3	242.3	242.3	242.3
2.5°	242.0	242.3	242.2	242.3	242.3	242.0	242.0	242.6	242.2	242.5	242.5
5°	241.9	242.2	242.0	242.3	242.3	242.2	242.2	243.1	242.9	243.4	243.7
7.5°	242.5	242.6	242.5	242.5	242.9	242.8	242.9	243.2	244.0	244.7	245.3
10°	243.2	243.5	244.0	244.1	244.7	244.6	245.0	245.5	246.3	247.0	247.8
12.5°	244.3	245.2	246.6	246.9	247.5	247.9	248.7	249.1	249.7	250.9	251.8
15°	245.2	246.9	248.5	249.1	249.7	250.3	251.1	251.5	252.6	253.6	254.7
17.5°	245.5	247.5	249.6	250.3	250.9	252.0	252.9	253.8	255.0	256.4	257.6
20°	245.7	248.4	251.1	252.0	253.3	254.8	256.4	257.1	258.8	260.4	261.5
22.5°	247.0	250.3	254.1	255.8	257.1	259.8	261.8	263.0	265.0	266.3	266.8
25°	250.8	254.2	258.8	261.3	263.6	267.5	269.9	272.2	273.2	275.1	274.6
27.5°	257.6	260.3	266.2	269.6	272.5	277.6	282.3	284.4	286.1	287.0	285.9
30°	269.2	270.2	276.7	280.9	285.8	293.8	298.9	301.6	303.7	303.9	301.1
32.5°	286.5	284.9	290.6	296.6	303.0	312.6	319.5	322.4	324.1	324.2	318.2
35°	310.0	307.2	312.0	317.9	325.7	338.4	347.1	350.5	353.0	351.8	342.9
37.5°	339.7	339.6	341.9	349.4	358.3	374.6	383.8	385.6	385.4	381.8	368.4
40°	372.8	370.1	370.4	375.8	386.0	407.5	420.3	423.3	422.2	417.0	399.5
42.5°	414.4	413.2	409.1	412.0	421.5	447.6	463.1	466.1	467.0	458.3	437.6
45°	472.8	471.7	462.7	463.3	470.2	497.6	513.8	518.7	518.9	510.6	483.8
47.5°	543.5	542.6	532.0	529.0	532.5	556.9	577.0	578.0	578.3	566.9	539.0
50°	623.7	621.1	613.1	610.0	605.9	632.9	649.0	648.9	647.2	634.6	603.2
52.5°	701.2	706.9	703.9	697.7	697.9	717.3	732.6	724.1	725.2	713.1	677.1
55°	784.0	798.6	809.6	811.9	810.8	820.8	829.2	814.2	808.6	806.6	768.3
57.5°	871.9	909.3	943.2	957.4	952.0	970.2	977.8	962.1	962.4	977.8	944.8
60°	989.4	1083.8	1169.3	1195.8	1208.2	1238.4	1224.9	1224.0	1247.7	1267.6	1206.4
62.5°	1167.6	1324.0	1460.5	1480.2	1490.2	1497.0	1490.9	1474.5	1498.9	1501.4	1407.0
65°	1302.7	1486.3	1618.2	1643.0	1641.1	1606.6	1573.1	1540.3	1540.0	1515.8	1394.3
66°	1317.4	1501.7	1630.3	1652.2	1644.2	1590.9	1548.4	1505.7	1492.0	1455.8	1332.5
67.5°	1285.4	1474.8	1602.5	1622.1	1605.1	1524.1	1466.2	1408.5	1387.8	1337.4	1211.7
70°	1098.9	1294.0	1464.9	1493.2	1473.0	1365.5	1279.7	1216.2	1159.9	1110.3	1006.6
72.5°	852.0	998.0	1178.8	1208.3	1210.0	1125.9	1029.2	968.3	902.8	853.1	775.3
75°	558.9	669.2	768.6	758.7	761.5	695.3	637.7	587.1	527.8	488.6	451.5
77.5°	326.6	366.1	357.1	332.4	311.6	244.9	175.2	120.3	105.0	109.5	123.5
80°	284.0	261.8	204.9	180.2	163.9	111.3	59.9	42.2	37.1	37.5	39.8
82.5°	305.7	317.1	260.3	214.3	186.8	131.0	70.4	35.1	25.3	29.6	32.6
85°	237.2	301.9	278.4	235.2	197.8	139.3	71.9	22.3	15.1	20.2	25.5
87.5°	67.6	106.9	85.5	75.6	60.9	41.6	17.2	8.9	8.1	10.6	14.6
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	242.3	242.3	242.3	242.3	242.3	242.3	242.3	242.3	242.3	242.3	242.3
2.5°	242.6	242.6	243.1	243.2	243.4	243.4	243.7	243.7	243.8	244.4	244.3
5°	244.1	244.6	245.2	245.5	246.0	246.1	246.6	246.6	247.0	247.5	247.3
7.5°	246.0	246.4	246.9	247.3	247.8	248.4	248.2	248.1	247.9	247.6	247.3
10°	248.5	249.0	249.4	249.3	249.0	248.7	247.5	246.1	245.5	244.3	243.4
12.5°	252.7	253.2	252.7	251.5	249.9	247.9	245.3	243.1	241.7	239.9	238.9
15°	255.9	256.4	255.5	253.3	250.6	248.1	244.6	241.7	239.3	237.4	235.8
17.5°	258.3	258.0	256.1	253.6	250.8	248.7	245.5	242.3	239.5	236.8	234.6
20°	261.8	260.1	257.3	254.2	251.4	249.6	247.0	244.1	241.1	237.2	234.5
22.5°	266.3	263.3	259.5	256.5	253.8	252.0	249.4	246.7	243.8	239.3	235.5
25°	272.8	268.0	263.6	260.4	258.0	256.2	253.0	250.2	247.0	242.5	237.7
27.5°	281.8	274.9	270.4	267.2	264.8	262.7	258.6	255.2	251.1	246.6	240.8
30°	293.6	285.2	280.2	277.5	274.9	271.9	267.5	262.4	257.1	251.1	244.9
32.5°	308.2	298.7	294.1	291.3	288.0	284.0	278.2	271.4	263.6	255.6	247.9
35°	329.0	318.2	313.1	308.4	303.6	297.5	288.9	279.1	268.7	258.3	248.8
37.5°	349.7	339.6	333.3	328.4	320.9	311.1	299.2	285.6	271.7	258.5	247.0
40°	379.0	367.2	359.8	351.2	339.0	323.8	306.4	288.2	271.0	255.0	241.4
42.5°	414.8	401.4	390.4	374.9	355.9	333.9	309.9	286.7	265.7	247.3	232.4
45°	460.2	442.7	424.3	399.9	370.8	340.1	309.7	281.4	256.7	235.8	221.1
47.5°	513.2	488.6	457.7	420.4	380.6	341.6	304.9	271.9	243.1	220.2	203.1
50°	567.6	532.0	488.1	436.3	385.6	337.8	294.2	256.4	225.3	199.2	180.8
52.5°	634.7	579.5	515.7	447.0	383.5	326.6	276.4	234.5	201.3	175.8	154.7
55°	714.6	634.1	542.0	452.8	374.1	306.6	249.4	205.8	171.0	147.8	128.8
57.5°	846.9	719.6	586.8	461.6	355.7	276.7	216.5	171.5	138.7	119.0	103.7
60°	1074.9	895.0	681.5	483.2	330.2	234.2	174.8	134.4	107.4	91.5	80.8
62.5°	1234.0	1001.3	732.4	475.8	287.0	184.4	129.2	96.1	78.3	67.9	60.6
65°	1203.1	959.4	671.1	404.1	224.8	130.4	86.0	65.0	54.9	48.4	44.8
66°	1147.6	913.1	624.3	362.8	195.0	108.7	70.9	53.8	47.2	42.5	40.1
67.5°	1046.4	817.2	540.3	291.2	146.0	80.2	53.8	41.9	38.3	35.9	34.2
70°	866.3	646.2	372.0	172.1	77.2	44.9	34.2	30.9	29.3	28.2	28.0
72.5°	664.3	463.6	215.2	83.2	41.3	29.9	26.2	25.0	24.4	24.1	24.1
75°	410.3	261.5	96.2	41.8	28.5	24.4	22.8	22.2	22.0	22.0	22.0
77.5°	144.3	91.1	43.1	30.6	25.0	22.0	20.7	20.4	20.7	20.7	20.7
80°	39.8	35.1	31.2	27.1	22.6	20.4	19.2	19.0	19.6	19.8	19.2
82.5°	31.1	29.3	26.7	24.3	20.7	18.5	17.9	18.2	18.5	18.1	17.2
85°	26.5	25.3	18.7	18.7	16.7	16.1	16.0	16.3	16.1	14.9	13.7
87.5°	15.1	13.3	10.1	11.0	11.8	12.1	10.1	10.9	10.7	9.5	8.9
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):

	160°	165°	170°	175°	180°
0°	242.3	242.3	242.3	242.3	242.3
2.5°	244.6	244.6	244.9	244.9	244.7
5°	247.6	247.6	248.1	247.8	247.9
7.5°	247.0	246.4	246.4	246.1	246.0
10°	242.8	241.7	241.1	241.4	241.0
12.5°	238.0	237.1	236.5	236.3	236.2
15°	234.9	233.9	233.4	233.1	233.1
17.5°	233.3	232.1	231.5	231.0	230.9
20°	232.5	231.0	230.1	229.7	229.4
22.5°	232.8	231.0	229.8	229.2	228.9
25°	234.0	231.8	230.3	229.5	229.1
27.5°	236.2	233.1	231.5	230.4	229.8
30°	238.7	234.5	232.1	230.6	230.0
32.5°	240.4	234.6	231.6	229.4	228.8
35°	240.1	233.0	229.1	226.2	225.7
37.5°	237.1	228.6	223.8	220.0	219.6
40°	230.6	222.0	216.4	212.6	211.7
42.5°	221.5	212.6	206.6	203.1	201.9
45°	208.3	197.4	191.8	189.0	187.3
47.5°	189.6	179.3	173.1	170.7	168.6
50°	168.3	157.0	152.5	149.7	147.3
52.5°	143.3	133.6	130.1	127.6	125.6
55°	119.0	112.2	108.1	105.4	105.6
57.5°	95.6	91.5	89.3	86.4	86.7
60°	75.2	71.8	71.8	70.0	69.4
62.5°	57.5	56.1	55.6	55.0	54.0
65°	43.6	43.6	43.7	43.7	43.1
66°	39.2	39.7	40.3	40.3	39.5
67.5°	33.9	34.5	35.1	35.4	35.4
70°	28.0	28.8	29.1	29.4	29.3
72.5°	24.6	25.2	25.2	25.3	25.0
75°	22.3	22.6	22.8	22.5	22.3
77.5°	20.7	20.8	20.7	20.5	20.4
80°	18.7	18.5	18.1	17.5	17.3
82.5°	16.1	15.5	15.2	14.3	14.2
85°	13.0	12.2	11.6	10.4	9.8
87.5°	8.6	8.3	7.8	5.7	4.7
90°	0.0	0.0	0.0	0.0	0.0

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