

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: P146583

Luminaire Tested: **LDRL-T3-F01-E-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P146583  
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-8030  
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE  
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 3  
Light Source: (7) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2080.3 lumens  
Efficiency: N/A  
Efficacy: 80.3 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

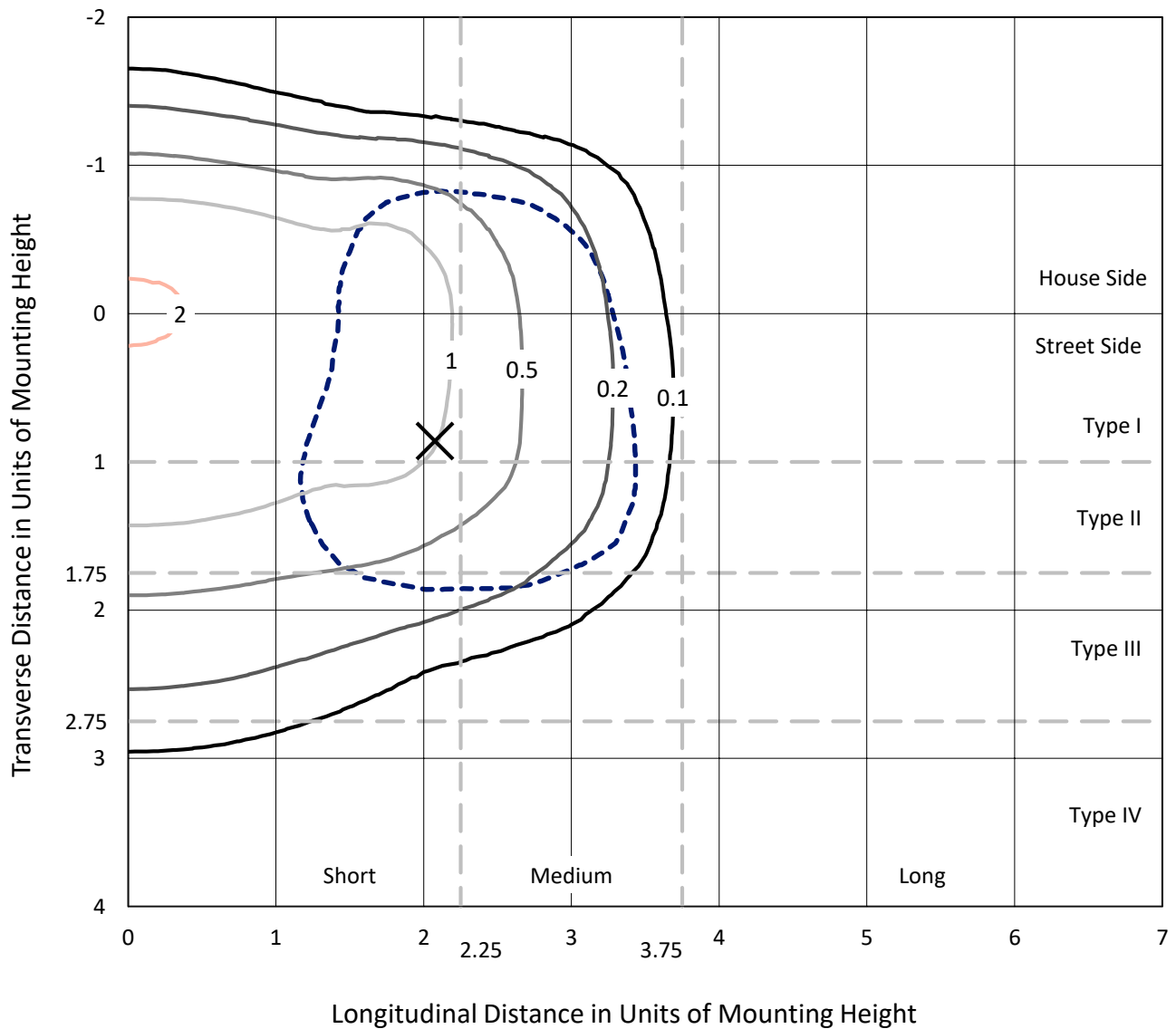
Input Watts (W): 25.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

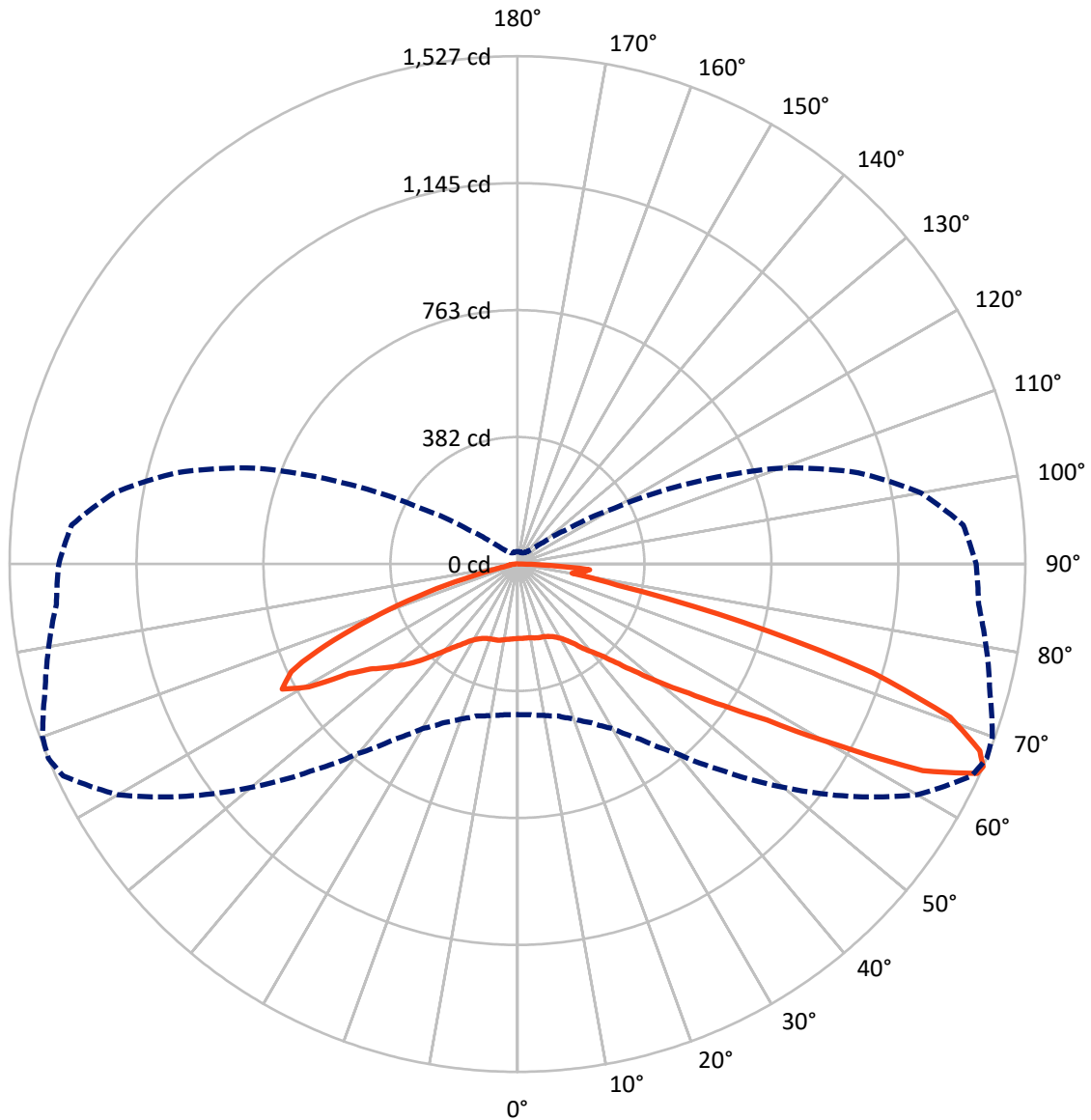
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.2 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
<b>House Side</b>	Lumens	706.8	0.0	706.8
	% Fixture	34.0	0.0	34.0
<b>Street Side</b>	Lumens	1373.6	0.0	1373.6
	% Fixture	66.0	0.0	66.0
<b>Total</b>	Lumens	2080.3	0.0	2080.3
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	21.5	1.0
10°-20°	63.7	3.1
20°-30°	109.6	5.3
30°-40°	176.2	8.5
40°-50°	290.5	14.0
50°-60°	455.3	21.9
60°-70°	630.1	30.3
70°-80°	285.2	13.7
80°-90°	48.1	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°	2080.3	100.0
0°-180°	2080.3	100.0



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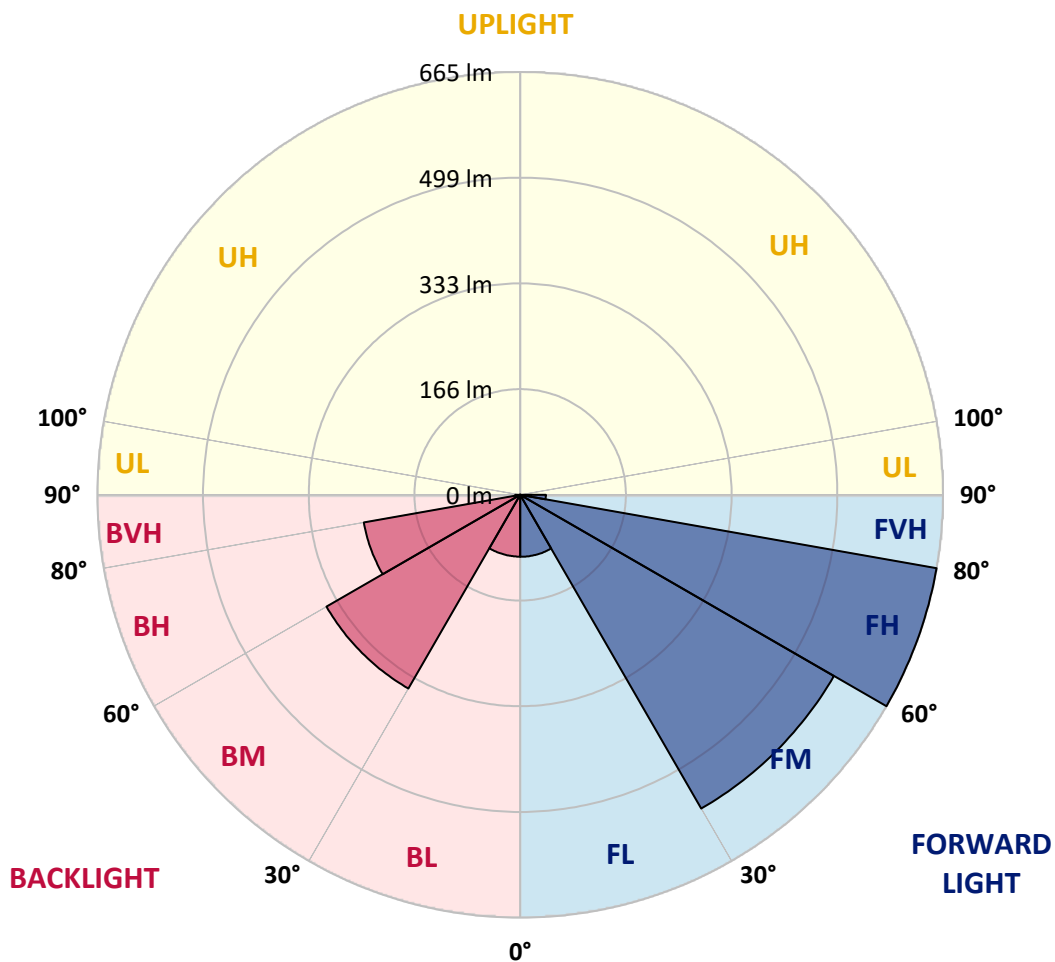
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	97.6	4.7			
FM	(30°-60°)	570.1	27.4			
FH	(60°-80°)	665.5	32.0			G1/1800
FVH	(80°-90°)	40.4	1.9			G1/100
BL	(0°-30°)	97.3	4.7	B0/110		
BM	(30°-60°)	352.0	16.9	B1/1000		
BH	(60°-80°)	249.8	12.0	B1/500		G1/500
BVH	(80°-90°)	7.7	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°	223.9	223.9	223.9	223.9	223.9	223.9	223.9	223.9	223.9	223.9	223.9
2.5°	223.7	223.5	223.4	223.4	223.2	223.4	223.5	223.7	223.5	223.7	223.5
5°	223.2	223.2	223.1	223.1	223.1	223.1	223.2	223.4	223.2	223.5	223.2
7.5°	221.4	222.3	222.0	222.3	222.5	222.8	223.0	223.2	223.7	223.9	223.7
10°	219.1	219.5	219.6	219.9	220.4	221.1	221.7	222.4	223.4	223.7	223.9
12.5°	214.7	215.3	215.7	216.3	217.1	218.2	219.2	220.3	222.0	223.1	224.1
15°	211.5	212.2	212.4	213.1	213.9	215.2	216.4	218.1	220.3	222.3	224.2
17.5°	213.6	213.9	213.6	213.6	213.9	214.5	215.4	216.8	219.2	221.6	223.9
20°	219.9	219.9	219.6	219.5	219.2	218.6	218.5	218.4	219.9	221.7	223.8
22.5°	225.9	225.9	225.7	226.3	226.2	226.2	225.7	225.0	224.3	224.1	225.5
25°	229.6	230.2	230.5	231.3	231.9	232.7	233.0	232.8	231.9	230.2	229.8
27.5°	235.8	236.2	236.5	237.4	238.6	239.5	240.5	241.8	241.8	240.2	238.1
30°	247.6	247.1	247.3	247.6	248.6	250.0	251.2	252.9	253.8	253.2	250.4
32.5°	258.6	259.2	259.5	260.3	261.3	263.4	264.9	266.8	268.7	268.9	267.5
35°	274.8	274.5	274.1	277.0	278.1	280.5	282.3	285.1	286.5	287.8	286.9
37.5°	300.3	299.5	298.9	299.7	301.3	302.8	305.4	307.5	309.9	312.8	311.9
40°	336.4	338.1	335.7	336.8	338.1	334.6	336.9	338.9	342.9	343.1	342.9
42.5°	383.3	384.6	384.0	384.7	382.5	381.4	380.4	381.4	386.4	385.7	382.4
45°	430.3	432.1	431.7	432.0	436.3	434.5	436.0	436.3	441.5	440.1	437.5
47.5°	470.4	473.5	474.2	476.7	482.6	487.3	493.8	498.7	501.2	502.9	504.9
50°	502.2	504.4	508.3	514.6	523.1	531.3	546.1	555.7	564.5	570.6	576.9
52.5°	523.2	525.8	531.7	541.2	553.5	568.5	585.8	605.9	624.4	635.3	644.6
55°	531.9	534.4	541.8	554.2	570.5	589.7	614.5	642.8	667.5	692.4	706.8
57.5°	526.9	529.7	538.2	552.1	571.7	597.0	627.8	662.5	698.5	736.3	765.2
60°	512.1	514.6	524.2	538.7	561.2	589.6	626.5	670.0	720.7	776.7	831.5
62.5°	491.8	495.5	504.0	518.8	541.1	572.2	614.2	670.8	743.6	833.9	940.5
65°	465.8	468.6	476.1	487.9	512.4	544.8	589.3	658.6	753.6	881.6	1033.8
66°	452.5	455.1	462.1	473.1	495.5	526.7	571.2	642.1	742.4	881.4	1043.7
67.5°	428.9	430.2	435.2	446.1	460.7	488.7	529.9	596.4	695.2	844.2	1016.1
70°	359.8	361.6	366.5	372.1	377.5	387.5	416.4	460.3	539.3	682.1	846.1
72.5°	248.9	251.7	257.0	267.3	275.8	288.4	299.7	314.4	340.6	439.8	605.3
75°	179.9	180.9	188.7	206.8	223.9	249.3	271.7	278.8	269.9	268.4	355.6
77.5°	107.3	108.7	120.0	138.2	156.1	190.5	236.5	272.0	291.7	284.7	269.2
80°	45.1	47.1	53.8	58.5	73.3	102.1	147.6	203.3	255.1	287.1	279.8
82.5°	14.5	16.9	19.9	24.1	28.4	38.0	58.9	88.2	139.3	207.8	255.4
85°	5.3	5.4	7.5	10.5	11.6	13.4	17.1	26.5	47.1	77.9	144.9
87.5°	2.1	2.5	2.9	4.0	4.2	4.3	4.9	6.3	6.1	5.3	27.5
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):**

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	223.9	223.9	223.9	223.9	223.9	223.9	223.9	223.9	223.9	223.9	223.9
2.5°	223.7	223.9	223.8	223.9	223.9	223.7	223.7	224.2	223.8	224.1	224.1
5°	223.5	223.8	223.7	223.9	223.9	223.8	223.8	224.6	224.5	224.9	225.2
7.5°	224.1	224.2	224.1	224.1	224.5	224.3	224.5	224.8	225.5	226.2	226.7
10°	224.8	225.0	225.5	225.6	226.2	226.0	226.4	226.9	227.6	228.3	228.9
12.5°	225.7	226.6	227.8	228.1	228.7	229.1	229.8	230.2	230.8	231.9	232.7
15°	226.6	228.1	229.6	230.2	230.8	231.3	232.0	232.4	233.4	234.4	235.4
17.5°	226.9	228.7	230.6	231.3	231.9	232.8	233.7	234.5	235.6	236.9	238.0
20°	227.0	229.5	232.0	232.8	234.1	235.5	236.9	237.6	239.1	240.7	241.6
22.5°	228.3	231.3	234.8	236.3	237.6	240.1	241.9	243.0	244.8	246.1	246.5
25°	231.7	234.9	239.1	241.5	243.6	247.2	249.4	251.5	252.5	254.2	253.8
27.5°	238.0	240.5	245.9	249.2	251.8	256.5	260.9	262.8	264.3	265.2	264.2
30°	248.7	249.7	255.7	259.6	264.1	271.4	276.2	278.7	280.6	280.8	278.3
32.5°	264.8	263.2	268.5	274.1	279.9	288.9	295.3	297.9	299.5	299.6	294.0
35°	286.5	283.9	288.3	293.7	301.0	312.7	320.8	323.8	326.2	325.1	316.9
37.5°	313.9	313.8	315.9	322.9	331.1	346.1	354.6	356.3	356.2	352.8	340.4
40°	344.5	342.0	342.2	347.3	356.7	376.5	388.4	391.1	390.2	385.3	369.1
42.5°	382.9	381.8	378.0	380.7	389.5	413.6	427.9	430.7	431.6	423.5	404.4
45°	436.9	435.9	427.5	428.1	434.5	459.8	474.8	479.4	479.5	471.8	447.0
47.5°	502.2	501.4	491.6	488.8	492.0	514.6	533.1	534.1	534.4	523.8	498.0
50°	576.3	574.0	566.6	563.7	559.9	584.8	599.7	599.6	598.1	586.4	557.4
52.5°	648.0	653.3	650.5	644.8	644.9	662.9	676.9	669.1	670.1	659.0	625.7
55°	724.5	738.0	748.2	750.2	749.3	758.5	766.3	752.3	747.2	745.4	710.0
57.5°	805.7	840.3	871.6	884.7	879.7	896.6	903.5	889.0	889.3	903.5	873.0
60°	914.3	1001.5	1080.5	1105.0	1116.4	1144.3	1131.9	1131.1	1153.0	1171.4	1114.8
62.5°	1079.0	1223.5	1349.6	1367.8	1377.0	1383.3	1377.7	1362.5	1385.1	1387.3	1300.1
65°	1203.8	1373.4	1495.3	1518.2	1516.5	1484.6	1453.7	1423.3	1423.0	1400.7	1288.4
66°	1217.3	1387.6	1506.5	1526.7	1519.3	1470.1	1430.8	1391.4	1378.7	1345.3	1231.3
67.5°	1187.8	1362.8	1480.8	1499.0	1483.2	1408.4	1354.9	1301.5	1282.4	1235.9	1119.7
70°	1015.4	1195.7	1353.6	1379.8	1361.1	1261.8	1182.5	1123.8	1071.9	1026.0	930.1
72.5°	787.3	922.2	1089.3	1116.6	1118.1	1040.4	951.0	894.7	834.3	788.3	716.4
75°	516.4	618.4	710.3	701.1	703.7	642.5	589.3	542.5	487.7	451.5	417.2
77.5°	301.8	338.3	330.0	307.1	287.9	226.3	161.9	111.2	97.0	101.2	114.1
80°	262.4	241.9	189.4	166.5	151.5	102.8	55.3	39.0	34.3	34.7	36.8
82.5°	282.5	293.0	240.5	198.0	172.7	121.1	65.1	32.5	23.4	27.3	30.1
85°	219.2	279.0	257.2	217.4	182.8	128.8	66.5	20.6	13.9	18.7	23.5
87.5°	62.4	98.8	79.0	69.8	56.3	38.5	15.9	8.2	7.5	9.8	13.5
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):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	223.9	223.9	223.9	223.9	223.9	223.9	223.9	223.9	223.9	223.9	223.9
2.5°	224.2	224.2	224.6	224.8	224.9	224.9	225.2	225.2	225.3	225.9	225.7
5°	225.6	226.0	226.6	226.9	227.3	227.4	227.8	227.8	228.3	228.7	228.5
7.5°	227.3	227.7	228.1	228.5	228.9	229.5	229.4	229.2	229.1	228.8	228.5
10°	229.6	230.1	230.5	230.3	230.1	229.8	228.7	227.4	226.9	225.7	224.9
12.5°	233.5	234.0	233.5	232.4	230.9	229.1	226.7	224.6	223.4	221.7	220.7
15°	236.5	236.9	236.1	234.1	231.6	229.2	226.0	223.4	221.1	219.3	217.9
17.5°	238.7	238.4	236.6	234.4	231.7	229.8	226.9	223.9	221.3	218.8	216.8
20°	241.9	240.4	237.7	234.9	232.3	230.6	228.3	225.6	222.8	219.2	216.7
22.5°	246.1	243.3	239.8	237.0	234.5	232.8	230.5	228.0	225.3	221.1	217.7
25°	252.1	247.6	243.6	240.7	238.4	236.8	233.8	231.2	228.3	224.1	219.6
27.5°	260.4	254.0	249.8	246.9	244.7	242.7	239.0	235.8	232.0	227.8	222.5
30°	271.3	263.5	258.9	256.4	254.0	251.2	247.2	242.5	237.6	232.0	226.3
32.5°	284.8	276.0	271.7	269.2	266.2	262.4	257.1	250.8	243.6	236.2	229.1
35°	304.1	294.0	289.3	285.0	280.5	274.9	267.0	257.9	248.3	238.7	229.9
37.5°	323.1	313.8	308.0	303.5	296.5	287.5	276.5	263.9	251.1	238.8	228.3
40°	350.2	339.3	332.5	324.5	313.3	299.2	283.2	266.3	250.4	235.6	223.1
42.5°	383.3	370.9	360.8	346.4	328.9	308.5	286.4	264.9	245.5	228.5	214.7
45°	425.3	409.1	392.1	369.5	342.7	314.2	286.2	260.0	237.2	217.9	204.3
47.5°	474.2	451.5	422.9	388.5	351.7	315.6	281.8	251.2	224.6	203.4	187.7
50°	524.5	491.6	451.1	403.1	356.3	312.1	271.9	236.9	208.2	184.1	167.1
52.5°	586.5	535.5	476.6	413.0	354.4	301.8	255.4	216.7	186.0	162.5	143.0
55°	660.4	586.0	500.8	418.5	345.7	283.3	230.5	190.2	158.0	136.6	119.0
57.5°	782.6	665.0	542.2	426.5	328.7	255.7	200.1	158.4	128.2	109.9	95.9
60°	993.3	827.0	629.7	446.5	305.2	216.4	161.5	124.2	99.2	84.6	74.7
62.5°	1140.3	925.3	676.8	439.6	265.2	170.4	119.4	88.8	72.3	62.7	56.0
65°	1111.7	886.5	620.1	373.5	207.8	120.5	79.4	60.1	50.7	44.7	41.4
66°	1060.4	843.7	576.9	335.3	180.2	100.5	65.5	49.7	43.6	39.3	37.1
67.5°	966.9	755.1	499.3	269.1	134.9	74.1	49.7	38.7	35.4	33.2	31.6
70°	800.5	597.1	343.8	159.0	71.3	41.5	31.6	28.6	27.0	26.1	25.9
72.5°	613.8	428.4	198.8	76.9	38.2	27.6	24.2	23.1	22.6	22.3	22.3
75°	379.2	241.6	88.9	38.6	26.3	22.6	21.0	20.5	20.3	20.3	20.3
77.5°	133.4	84.2	39.9	28.3	23.1	20.3	19.1	18.8	19.1	19.1	19.1
80°	36.8	32.5	28.8	25.1	20.9	18.8	17.7	17.6	18.1	18.3	17.7
82.5°	28.7	27.0	24.7	22.4	19.1	17.1	16.6	16.9	17.1	16.7	15.9
85°	24.5	23.4	17.3	17.3	15.5	14.9	14.8	15.0	14.9	13.8	12.7
87.5°	13.9	12.3	9.3	10.2	10.9	11.1	9.3	10.0	9.9	8.8	8.2
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):**

	160°	165°	170°	175°	180°
0°	223.9	223.9	223.9	223.9	223.9
2.5°	226.0	226.0	226.3	226.3	226.2
5°	228.8	228.8	229.2	228.9	229.1
7.5°	228.3	227.7	227.7	227.4	227.3
10°	224.3	223.4	222.8	223.1	222.7
12.5°	219.9	219.1	218.5	218.4	218.2
15°	217.1	216.1	215.7	215.4	215.4
17.5°	215.6	214.5	213.9	213.5	213.3
20°	214.9	213.5	212.6	212.2	211.9
22.5°	215.2	213.5	212.4	211.8	211.5
25°	216.3	214.2	212.8	212.1	211.7
27.5°	218.2	215.4	213.9	212.9	212.4
30°	220.6	216.7	214.5	213.1	212.5
32.5°	222.1	216.8	214.0	211.9	211.4
35°	221.8	215.3	211.7	209.0	208.6
37.5°	219.1	211.3	206.8	203.3	202.9
40°	213.1	205.1	200.0	196.5	195.6
42.5°	204.7	196.5	190.9	187.7	186.6
45°	192.4	182.4	177.2	174.6	173.1
47.5°	175.2	165.7	160.0	157.7	155.8
50°	155.5	145.1	140.9	138.4	136.1
52.5°	132.4	123.5	120.3	117.9	116.1
55°	109.9	103.7	99.9	97.4	97.5
57.5°	88.3	84.6	82.5	79.8	80.1
60°	69.5	66.3	66.3	64.7	64.1
62.5°	53.1	51.8	51.4	50.9	49.9
65°	40.3	40.3	40.4	40.4	39.9
66°	36.2	36.6	37.2	37.2	36.5
67.5°	31.4	31.9	32.5	32.7	32.7
70°	25.9	26.6	26.9	27.2	27.0
72.5°	22.7	23.3	23.3	23.4	23.1
75°	20.6	20.9	21.0	20.8	20.6
77.5°	19.1	19.2	19.1	19.0	18.8
80°	17.3	17.1	16.7	16.2	16.0
82.5°	14.9	14.4	14.1	13.2	13.1
85°	12.0	11.3	10.7	9.6	9.1
87.5°	7.9	7.7	7.2	5.3	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)