

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: P163555

Luminaire Tested: **LDRL-SL3-E06-E-8030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P163555
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-E06-E-8030-HSS
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(6) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (126) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8516.4 lumens
Efficiency: N/A
Efficacy: 56.6 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 1' x H: 0.1')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B0 - U0 - G2

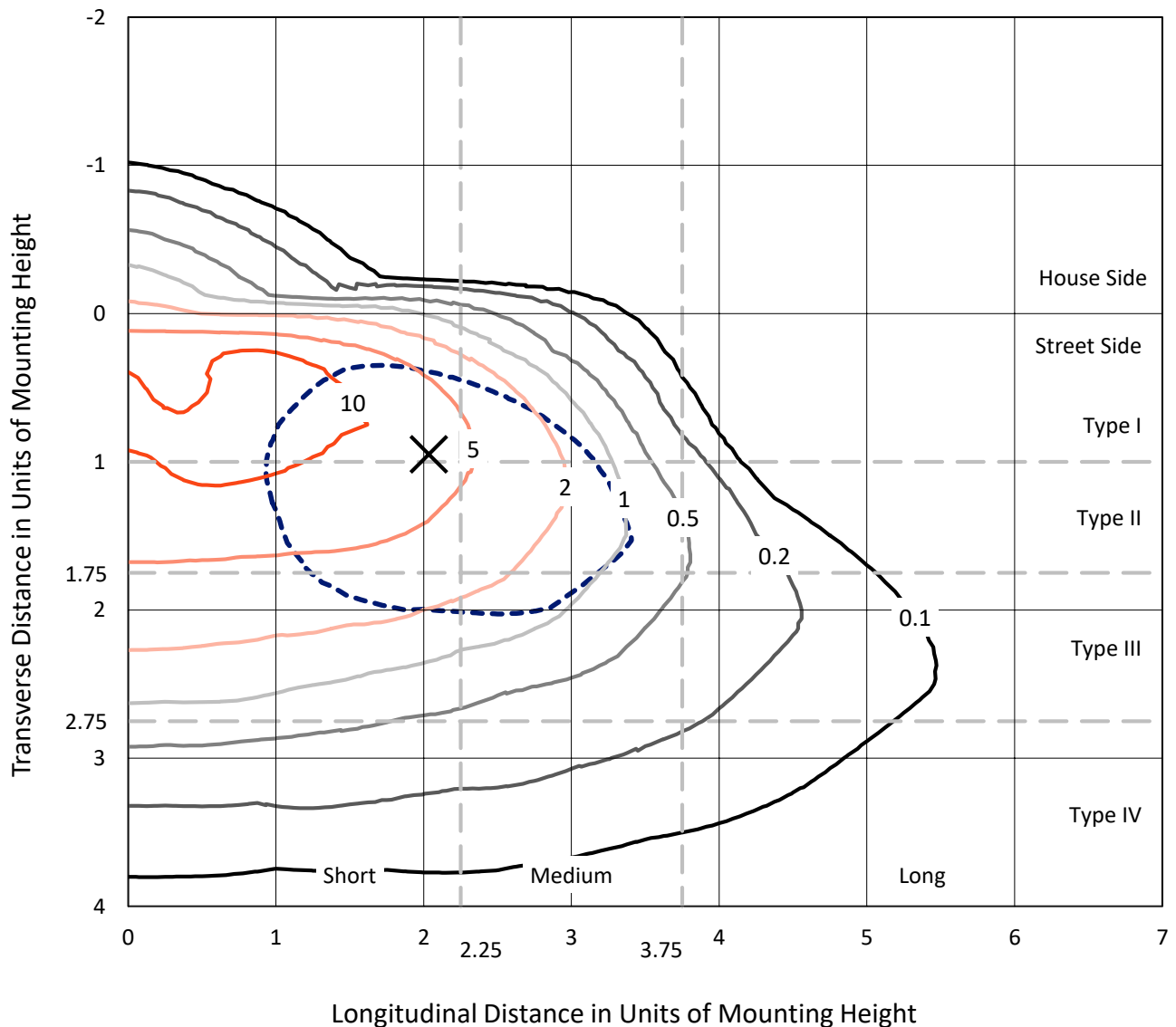
Input Watts (W): 150.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

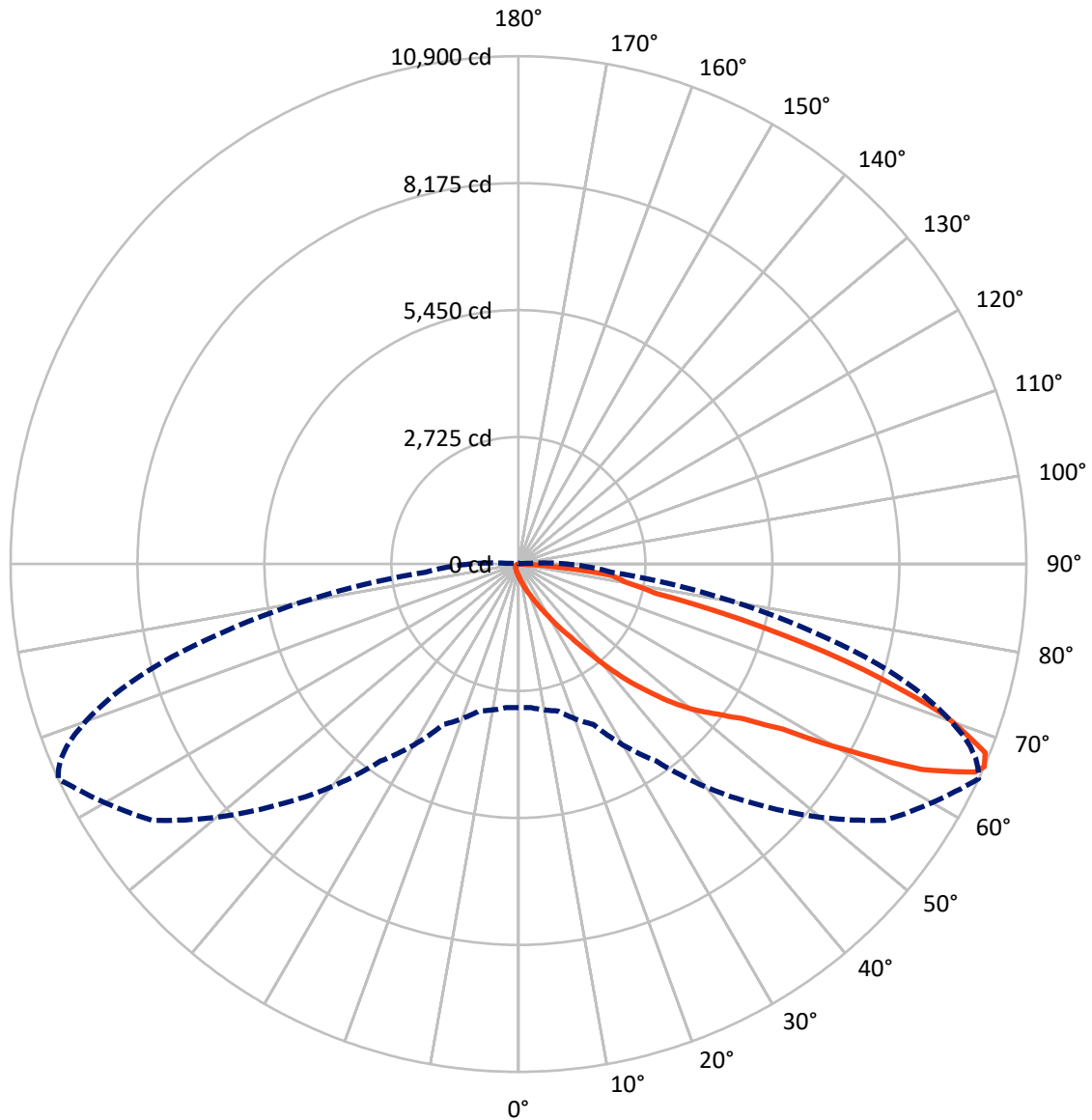
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 14.1 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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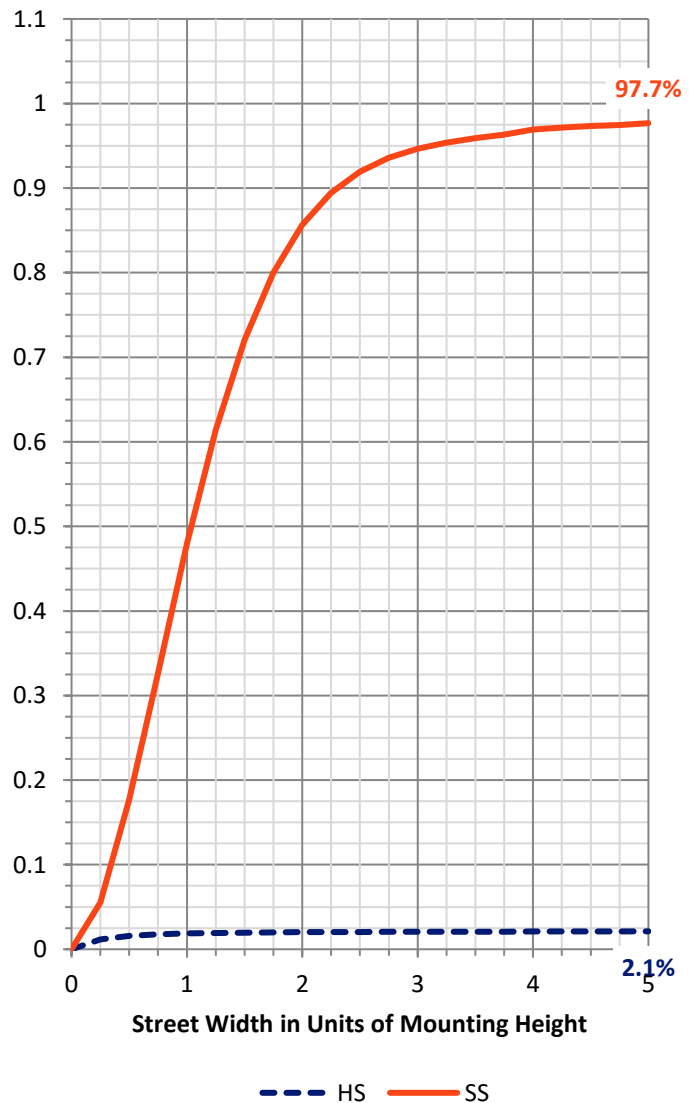
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	184.5	0.0	184.5
	% Fixture	2.2	0.0	2.2
Street Side	Lumens	8331.9	0.0	8331.9
	% Fixture	97.8	0.0	97.8
Total	Lumens	8516.4	0.0	8516.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.8	0.3
10°-20°	122.0	1.4
20°-30°	263.2	3.1
30°-40°	562.0	6.6
40°-50°	1242.9	14.6
50°-60°	2106.3	24.7
60°-70°	2810.7	33.0
70°-80°	1238.1	14.5
80°-90°	142.6	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°	8516.4	100.0
0°-180°	8516.4	100.0



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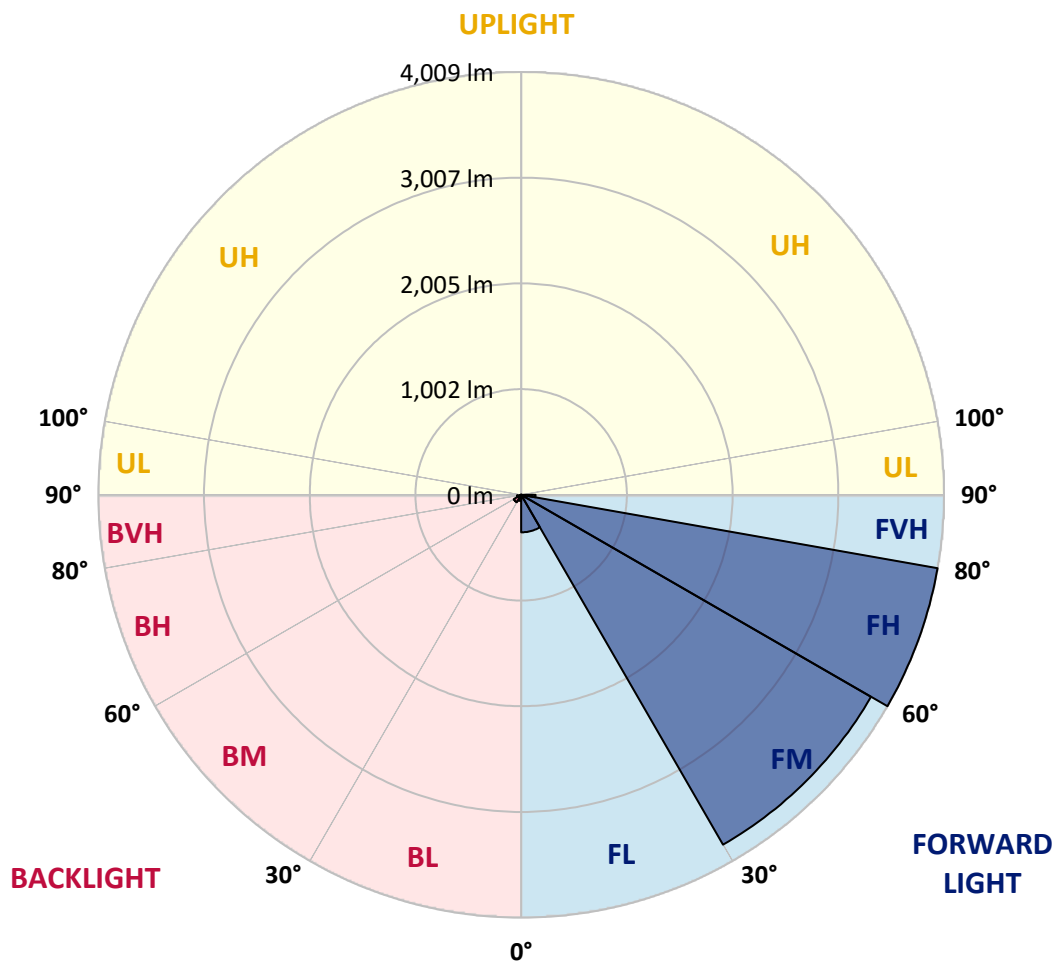
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	355.7	4.2			
FM	(30°-60°)	3830.1	45.0			
FH	(60°-80°)	4009.1	47.1			G2/5000
FVH	(80°-90°)	136.9	1.6			G2/225
BL	(0°-30°)	58.2	0.7	B0/110		
BM	(30°-60°)	81.0	1.0	B0/220		
BH	(60°-80°)	39.6	0.5	B0/110		G0/110
BVH	(80°-90°)	5.7	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-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	257.0	257.0	257.0	257.0	257.0	257.0	257.0	257.0	257.0	257.0	257.0
2.5°	324.2	322.6	316.0	316.0	306.2	299.6	291.5	283.3	283.3	281.7	279.9
5°	429.0	419.2	417.5	399.5	384.8	363.5	343.8	317.6	314.4	311.1	309.4
7.5°	545.2	543.6	528.9	507.6	478.1	438.8	399.5	356.9	350.4	347.1	340.6
10°	695.9	687.7	668.0	632.0	587.8	535.4	471.6	404.4	396.2	389.7	386.4
12.5°	839.9	825.2	813.8	767.9	712.2	635.3	558.4	461.7	455.1	446.9	433.9
15°	974.2	961.1	941.5	902.2	839.9	743.4	653.2	535.4	519.1	507.6	497.8
17.5°	1079.0	1070.8	1047.9	1003.7	936.5	851.5	743.4	610.7	597.6	582.9	564.8
20°	1178.9	1167.4	1131.4	1070.8	998.8	933.3	849.7	709.0	690.9	672.9	653.2
22.5°	1273.9	1262.3	1203.4	1103.5	1026.6	998.8	969.3	820.3	792.5	777.7	758.1
25°	1406.5	1382.0	1290.2	1131.4	1028.3	1049.6	1100.3	964.4	938.1	916.9	885.8
27.5°	1584.9	1552.2	1408.1	1172.3	1034.8	1105.2	1250.9	1139.6	1111.7	1087.2	1052.8
30°	1786.4	1765.0	1593.1	1270.5	1082.3	1187.1	1419.5	1362.3	1329.5	1300.0	1259.1
32.5°	1989.3	1959.8	1789.6	1457.2	1210.0	1345.9	1630.8	1621.0	1578.4	1550.6	1506.3
35°	2167.8	2153.1	2027.0	1763.4	1501.5	1624.2	1912.3	1923.9	1886.2	1856.7	1807.6
37.5°	2289.0	2289.0	2264.4	2092.5	1964.8	2056.5	2326.7	2328.3	2290.6	2223.5	2199.0
40°	2351.2	2369.2	2457.6	2490.3	2483.9	2601.8	2870.2	2840.8	2809.7	2775.2	2693.4
42.5°	2478.9	2495.3	2683.6	2909.5	3056.9	3212.5	3397.4	3387.6	3350.0	3287.7	3212.5
45°	2695.0	2716.3	2940.6	3299.2	3602.1	3823.2	3941.1	3895.2	3857.5	3798.6	3759.3
47.5°	2970.1	3011.0	3264.8	3708.5	4073.6	4438.8	4561.6	4440.5	4407.7	4361.9	4298.0
50°	3263.2	3302.5	3572.6	4080.2	4492.8	4928.3	5133.0	4928.3	4880.8	4866.1	4794.1
52.5°	3517.0	3549.7	3810.0	4366.7	4813.8	5324.5	5622.6	5352.4	5318.1	5268.9	5216.5
55°	3667.6	3693.8	3937.7	4504.3	5031.5	5681.5	6095.8	5858.4	5807.6	5788.0	5712.6
57.5°	3718.4	3744.6	3964.0	4522.3	5149.4	6007.4	6670.4	6678.6	6618.1	6547.7	6524.8
60°	3718.4	3747.8	3932.9	4478.0	5264.0	6354.4	7436.7	8119.5	7988.5	7975.4	7892.0
62.5°	3564.4	3592.3	3778.9	4342.2	5417.9	6822.8	8504.3	9709.3	9671.7	9586.6	9449.0
65°	3230.5	3246.8	3430.2	3995.0	5359.0	7253.4	9429.4	10767.1	10706.5	10539.5	10362.7
66°	3079.8	3093.0	3264.8	3796.9	5165.7	7312.3	9593.1	10899.6	10799.8	10659.0	10459.3
67.5°	2862.0	2884.9	3006.2	3428.6	4702.4	7107.7	9489.9	10806.4	10719.6	10549.3	10349.5
70°	1910.7	1894.4	2321.7	2631.2	3582.4	5791.2	8514.1	9702.8	9704.4	9624.2	9544.0
72.5°	907.1	916.9	1041.3	1619.3	2344.6	3869.0	6776.9	7744.6	7855.9	7711.8	7611.9
75°	651.6	666.4	741.7	990.6	1398.3	2321.7	4393.0	5416.3	5419.5	5164.1	4936.5
77.5°	189.9	198.1	278.3	610.7	1047.9	1566.9	2523.2	3011.0	2940.6	2757.2	2585.3
80°	78.6	78.6	81.8	194.9	420.8	1064.2	1765.0	2318.5	2310.3	2239.9	2138.3
82.5°	29.5	31.1	39.3	80.2	99.9	262.0	1177.3	2012.3	2007.3	1907.5	1835.5
85°	3.2	3.2	9.8	34.3	37.7	49.1	235.8	887.4	882.5	887.4	777.7
87.5°	0.0	0.0	1.6	3.2	4.9	6.6	9.8	34.3	37.7	36.1	32.7
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):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	257.0	257.0	257.0	257.0	257.0	257.0	257.0	257.0	257.0	257.0	257.0
2.5°	279.9	276.7	276.7	275.1	275.1	275.1	273.5	271.8	271.8	270.1	268.5
5°	306.2	302.9	301.3	298.0	296.3	294.7	291.5	289.8	286.5	284.9	283.3
7.5°	337.3	330.8	329.1	324.2	319.2	316.0	312.7	307.8	304.5	298.0	296.3
10°	376.6	368.4	361.9	355.3	350.4	342.2	337.3	330.8	324.2	319.2	314.4
12.5°	427.3	415.9	406.0	399.5	388.0	378.2	368.4	363.5	350.4	343.8	335.6
15°	483.0	469.9	458.5	445.3	437.1	420.8	407.6	393.0	386.4	374.9	361.9
17.5°	555.0	533.7	515.7	502.6	486.2	469.9	455.1	440.5	420.8	407.6	391.3
20°	632.0	614.0	589.4	566.6	546.9	527.3	505.9	486.2	468.3	446.9	427.3
22.5°	730.2	704.1	674.6	651.6	625.5	604.1	574.7	548.5	519.1	491.2	468.3
25°	854.7	820.3	792.5	759.7	728.6	695.9	659.8	627.1	589.4	563.2	523.9
27.5°	1008.6	975.8	938.1	895.6	864.5	815.4	767.9	727.0	682.7	641.8	597.6
30°	1205.1	1157.6	1118.3	1077.4	1015.1	967.6	912.0	856.3	795.7	754.8	687.7
32.5°	1440.9	1390.1	1331.1	1272.2	1214.9	1147.8	1079.0	1010.3	943.1	867.8	799.0
35°	1729.0	1668.5	1601.3	1537.4	1449.0	1377.0	1290.2	1195.3	1119.9	1033.1	946.4
37.5°	2110.6	2010.6	1951.6	1884.6	1765.0	1666.7	1570.2	1475.2	1342.7	1250.9	1128.1
40°	2588.6	2529.6	2433.0	2325.0	2216.9	2087.6	1956.6	1830.5	1676.6	1549.0	1406.5
42.5°	3150.2	3063.5	2965.2	2809.7	2700.0	2547.7	2398.7	2231.7	2043.4	1879.6	1712.6
45°	3677.4	3574.2	3499.0	3343.4	3228.8	3048.7	2868.6	2691.8	2474.0	2262.8	2069.5
47.5°	4247.2	4162.1	4037.7	3911.6	3795.3	3592.3	3397.4	3183.0	2953.7	2703.2	2452.7
50°	4748.3	4681.1	4595.9	4443.7	4314.4	4144.0	3914.8	3680.7	3390.9	3142.1	2857.2
52.5°	5173.9	5121.6	5002.1	4894.0	4777.7	4617.3	4412.6	4188.3	3875.5	3602.1	3277.9
55°	5676.6	5638.9	5534.2	5467.0	5363.8	5210.0	5018.4	4810.4	4479.8	4181.7	3815.0
57.5°	6500.2	6470.7	6379.1	6351.2	6249.7	6115.4	5879.6	5656.9	5270.6	4900.5	4481.4
60°	7864.1	7805.2	7670.9	7602.1	7387.6	7207.5	6901.3	6595.2	6128.5	5656.9	5152.7
62.5°	9324.5	9159.2	8903.7	8684.4	8379.8	8067.1	7657.8	7189.5	6642.6	6082.7	5503.1
65°	10112.1	9830.5	9508.0	9159.2	8764.6	8304.5	7788.8	7227.2	6639.3	6048.3	5435.9
66°	10202.1	9884.5	9542.3	9154.3	8715.5	8225.9	7702.0	7112.5	6501.8	5925.5	5313.1
67.5°	10089.2	9756.8	9394.9	8964.4	8489.5	7982.0	7431.8	6819.4	6231.7	5647.1	5051.2
70°	9298.4	8967.6	8645.1	8191.5	7685.7	7174.8	6654.1	5969.7	5413.0	4876.0	4345.5
72.5°	7425.3	7200.9	6881.7	6493.6	6000.8	5401.5	4967.6	4355.3	3872.3	3351.6	2940.6
75°	4640.2	4324.2	3929.6	3435.1	3058.5	2572.3	2318.5	1853.4	1578.4	1337.7	1105.2
77.5°	2372.5	2135.1	1858.4	1580.1	1313.2	1047.9	810.4	573.0	386.4	268.5	199.7
80°	1959.8	1750.3	1521.1	1267.3	1031.5	800.6	576.4	393.0	250.5	163.8	127.7
82.5°	1619.3	1442.5	1237.8	1002.1	797.4	628.7	437.1	284.9	176.8	114.6	90.0
85°	689.3	625.5	483.0	383.1	288.1	212.9	149.0	99.9	70.4	57.3	52.4
87.5°	29.5	32.7	31.1	24.5	18.0	18.0	16.4	13.1	13.1	13.1	13.1
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):

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	257.0	257.0	257.0	257.0	257.0	257.0	257.0	257.0	257.0	257.0	257.0
2.5°	268.5	266.9	265.2	265.2	263.6	262.0	252.2	244.0	234.2	227.6	221.0
5°	279.9	278.3	275.1	273.5	270.1	268.5	247.2	229.2	214.5	203.1	194.9
7.5°	291.5	289.8	284.9	279.9	278.3	275.1	240.6	217.7	198.1	185.0	176.8
10°	306.2	301.3	296.3	289.8	284.9	279.9	234.2	204.7	183.4	171.9	163.8
12.5°	327.4	319.2	311.1	302.9	296.3	288.1	230.8	193.2	171.9	158.8	150.6
15°	352.0	340.6	330.8	321.0	309.4	301.3	224.3	183.4	162.0	149.0	139.2
17.5°	374.9	361.9	347.1	332.4	321.0	309.4	217.7	173.6	152.2	139.2	129.3
20°	407.6	388.0	370.1	352.0	335.6	321.0	207.9	163.8	144.1	129.3	119.5
22.5°	443.7	420.8	397.8	373.3	352.0	332.4	199.7	155.6	135.9	121.1	109.7
25°	489.6	461.7	430.6	399.5	374.9	348.7	191.5	147.4	127.7	112.9	101.5
27.5°	553.4	514.1	479.8	440.5	402.8	373.3	185.0	140.8	119.5	104.8	93.3
30°	640.2	582.9	528.9	486.2	442.1	399.5	178.5	132.6	112.9	96.6	83.5
32.5°	736.8	669.7	607.5	543.6	488.0	438.8	171.9	126.1	104.8	88.4	77.0
35°	856.3	771.1	687.7	614.0	546.9	481.4	165.4	119.5	98.2	80.2	68.8
37.5°	1028.3	921.8	812.2	717.2	630.4	543.6	160.4	112.9	90.0	72.0	60.6
40°	1264.1	1126.5	992.2	862.9	749.9	641.8	153.9	106.4	83.5	65.5	54.0
42.5°	1519.5	1352.5	1175.6	1029.9	874.3	738.4	147.4	99.9	77.0	58.9	47.5
45°	1837.1	1629.2	1414.7	1216.6	1026.6	851.5	140.8	93.3	68.8	52.4	40.9
47.5°	2184.2	1918.9	1676.6	1427.7	1201.8	992.2	132.6	88.4	62.2	45.9	36.1
50°	2541.1	2261.2	1955.0	1671.7	1403.2	1133.0	124.5	80.2	55.7	40.9	29.5
52.5°	2925.9	2595.2	2282.4	1930.4	1617.7	1318.0	116.3	73.6	50.7	36.1	24.5
55°	3415.4	3045.5	2678.6	2284.0	1907.5	1532.6	108.1	65.5	44.2	31.1	19.6
57.5°	4031.1	3592.3	3142.1	2696.7	2239.9	1814.1	101.5	57.3	37.7	26.2	16.4
60°	4612.3	4099.9	3554.6	3042.1	2526.4	2030.2	91.7	50.7	32.7	21.3	16.4
62.5°	4913.6	4329.1	3741.2	3176.4	2626.3	2107.2	81.8	42.5	27.9	18.0	14.7
65°	4839.9	4244.0	3674.2	3104.4	2565.7	2058.1	72.0	37.7	24.5	16.4	14.7
66°	4733.5	4144.0	3571.0	3029.0	2515.0	2005.7	67.1	36.1	22.9	16.4	13.1
67.5°	4501.0	3931.2	3384.3	2880.1	2375.8	1905.9	60.6	32.7	21.3	14.7	13.1
70°	3844.4	3327.0	2889.9	2441.2	2030.2	1606.2	49.1	27.9	18.0	13.1	13.1
72.5°	2544.4	2192.4	1900.9	1635.7	1367.2	1061.0	40.9	22.9	14.7	13.1	11.4
75°	959.5	867.8	745.0	669.7	584.5	512.5	32.7	14.7	11.4	11.4	11.4
77.5°	170.2	157.2	139.2	127.7	117.9	108.1	26.2	9.8	9.8	11.4	11.4
80°	114.6	106.4	96.6	88.4	81.8	73.6	18.0	8.2	9.8	9.8	11.4
82.5°	81.8	77.0	72.0	65.5	60.6	54.0	11.4	8.2	9.8	9.8	9.8
85°	49.1	45.9	42.5	39.3	34.3	32.7	8.2	8.2	8.2	9.8	9.8
87.5°	13.1	11.4	13.1	13.1	9.8	11.4	6.6	6.6	6.6	8.2	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):

	145°	155°	165°	175°	180°
0°	257.0	257.0	257.0	257.0	257.0
2.5°	217.7	217.7	214.5	219.4	219.4
5°	188.3	188.3	186.7	188.3	188.3
7.5°	171.9	170.2	170.2	170.2	171.9
10°	157.2	155.6	155.6	155.6	155.6
12.5°	144.1	142.4	140.8	142.4	142.4
15°	132.6	129.3	129.3	129.3	129.3
17.5°	122.8	119.5	117.9	117.9	117.9
20°	112.9	108.1	108.1	108.1	108.1
22.5°	103.1	98.2	98.2	98.2	98.2
25°	93.3	88.4	88.4	88.4	88.4
27.5°	85.2	80.2	80.2	80.2	80.2
30°	75.4	72.0	72.0	73.6	72.0
32.5°	68.8	63.8	63.8	65.5	65.5
35°	60.6	57.3	57.3	57.3	57.3
37.5°	52.4	49.1	49.1	49.1	49.1
40°	45.9	42.5	40.9	42.5	42.5
42.5°	39.3	36.1	34.3	34.3	34.3
45°	34.3	29.5	27.9	29.5	29.5
47.5°	27.9	24.5	24.5	26.2	26.2
50°	21.3	21.3	22.9	26.2	26.2
52.5°	19.6	19.6	22.9	26.2	26.2
55°	18.0	19.6	22.9	24.5	26.2
57.5°	16.4	19.6	22.9	24.5	24.5
60°	16.4	18.0	21.3	24.5	24.5
62.5°	14.7	16.4	19.6	22.9	22.9
65°	14.7	16.4	19.6	22.9	22.9
66°	14.7	16.4	19.6	22.9	22.9
67.5°	14.7	16.4	19.6	22.9	22.9
70°	14.7	16.4	19.6	21.3	21.3
72.5°	13.1	14.7	18.0	21.3	21.3
75°	13.1	14.7	18.0	21.3	21.3
77.5°	13.1	14.7	18.0	21.3	21.3
80°	13.1	14.7	18.0	19.6	21.3
82.5°	11.4	14.7	16.4	19.6	19.6
85°	11.4	13.1	16.4	18.0	19.6
87.5°	9.8	11.4	13.1	16.4	16.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)