

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: McGRAW-EDISON

Report Number: P301880

Luminaire Tested: **GLNA-AF-04-LED-E1-SL4-8030-800-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301880
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-04-LED-E1-SL4-8030-800-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11673.6 lumens
Efficiency: N/A
Efficacy: 68.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G3

Input Watts (W): 171
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

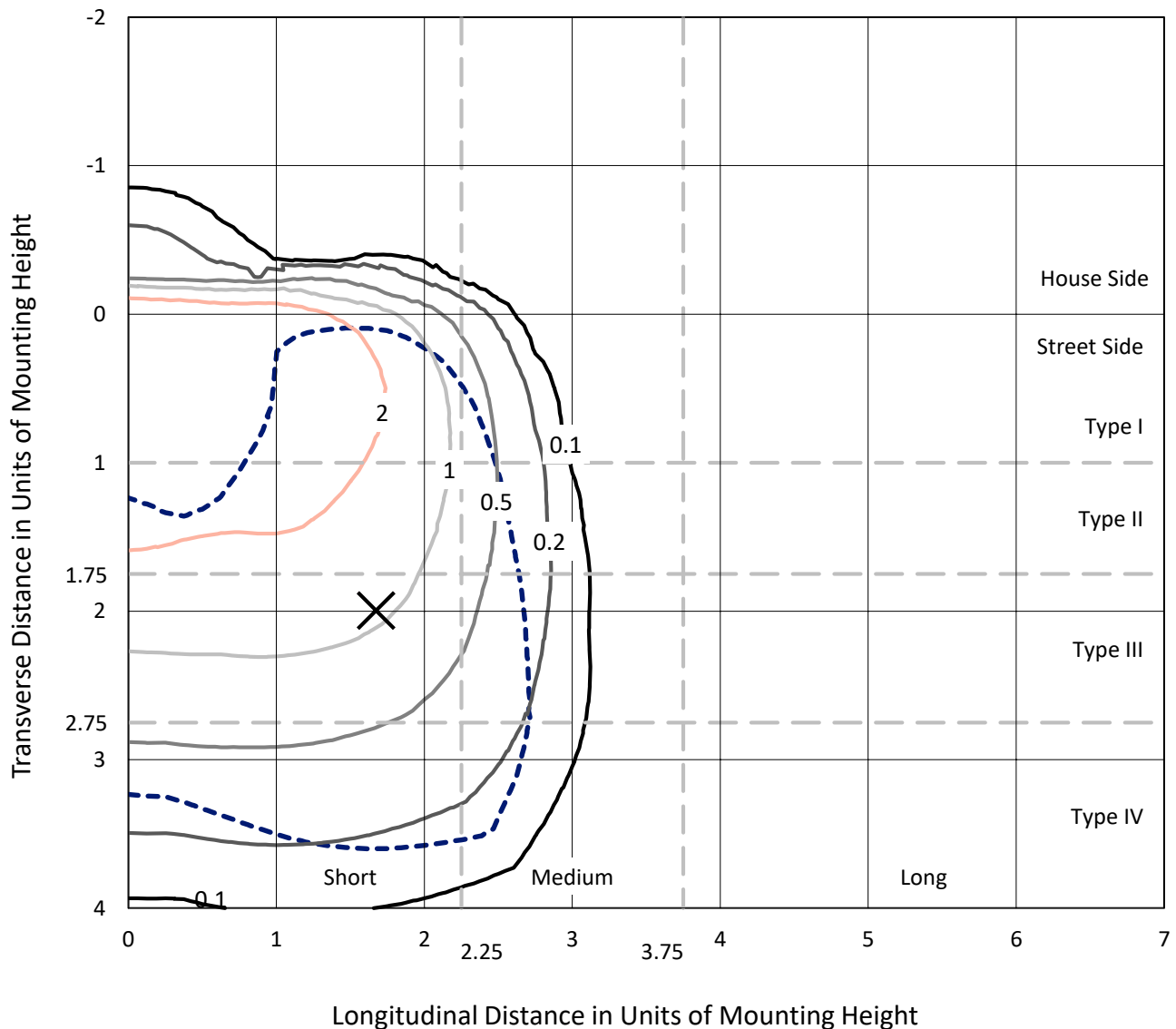


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

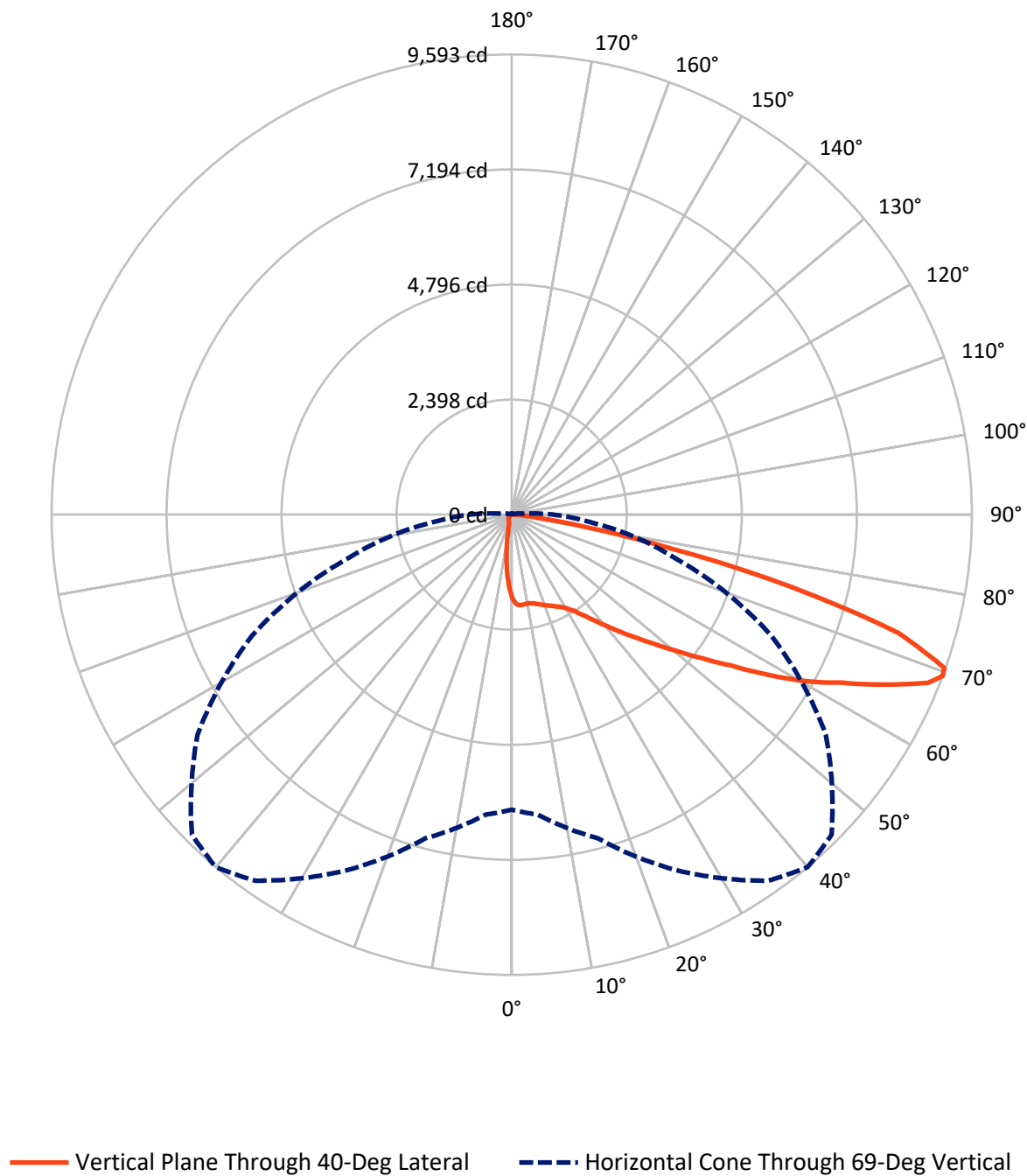


Based on 20 foot mounting height. Maximum calculated value = 4.8 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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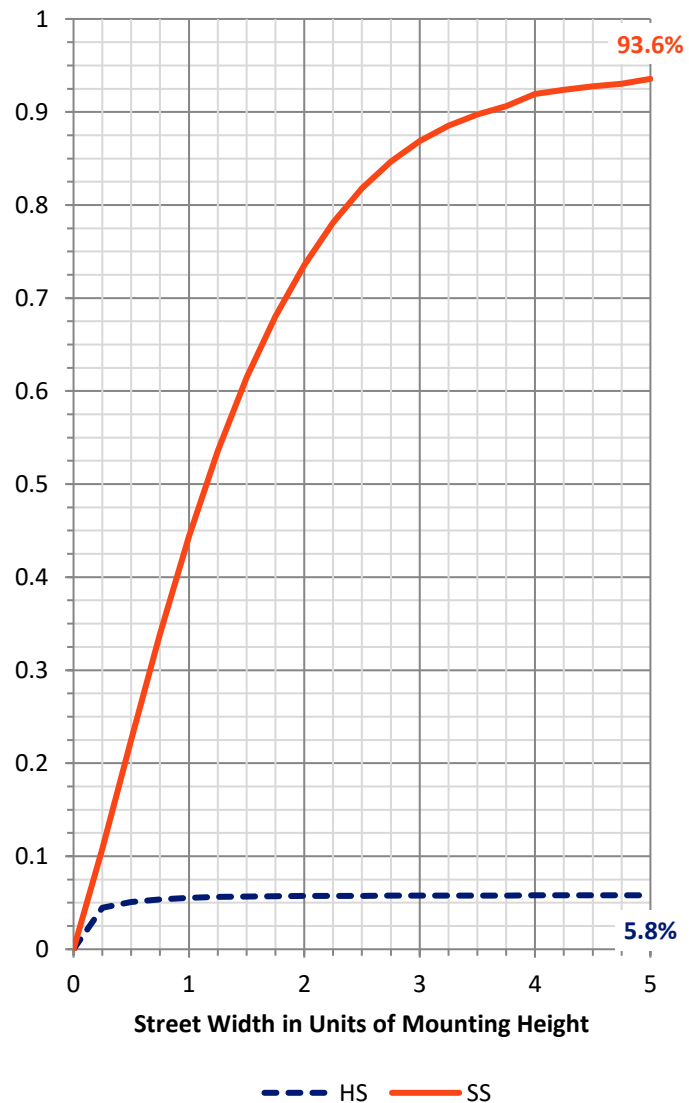
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	683.0	0.0	683.0
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	10990.6	0.0	10990.6
	% Fixture	94.1	0.0	94.1
Total	Lumens	11673.6	0.0	11673.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.4	1.2
10°-20°	347.8	3.0
20°-30°	585.7	5.0
30°-40°	958.9	8.2
40°-50°	1660.3	14.2
50°-60°	2615.1	22.4
60°-70°	3415.2	29.3
70°-80°	1759.0	15.1
80°-90°	190.3	1.6
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°	11673.6	100.0
0°-180°	11673.6	100.0

Coefficient of Utilization



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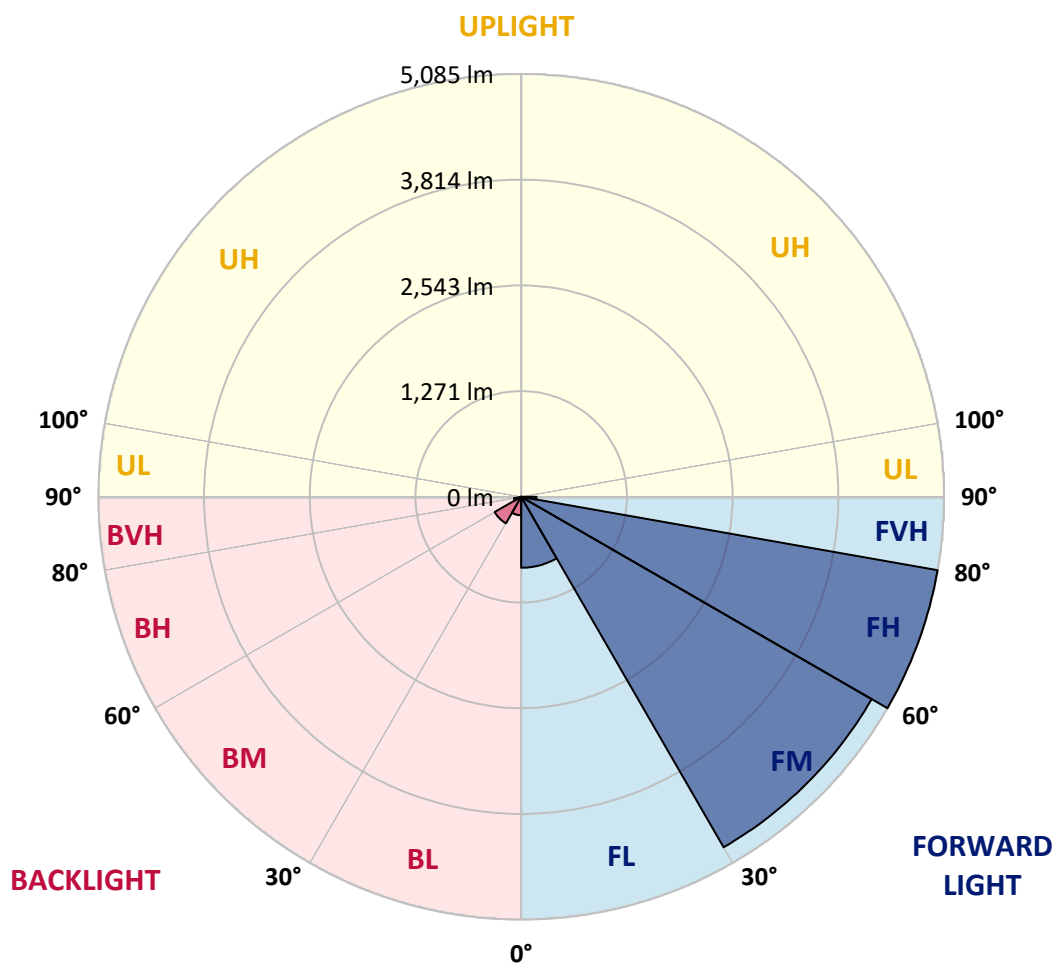
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	853.7	7.3			
FM	(30°-60°)	4867.2	41.7			
FH	(60°-80°)	5085.5	43.6			G3/7500
FVH	(80°-90°)	184.3	1.6			G2/225
BL	(0°-30°)	221.2	1.9	B1/500		
BM	(30°-60°)	367.1	3.1	B1/1000		
BH	(60°-80°)	88.7	0.8	B0/110		G0/110
BVH	(80°-90°)	6.0	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	1744.1	1744.1	1744.1	1744.1	1744.1	1744.1	1744.1	1744.1	1744.1	1744.1	1744.1
2.5°	1915.0	1904.6	1898.4	1890.0	1879.6	1870.6	1867.1	1841.4	1817.1	1783.7	1745.5
5°	1950.5	1947.0	1935.9	1924.8	1912.3	1898.4	1890.7	1860.1	1825.4	1776.8	1710.0
7.5°	1953.9	1949.8	1935.9	1920.6	1903.2	1886.5	1873.3	1842.8	1810.8	1761.5	1680.2
10°	1948.4	1943.5	1933.1	1916.4	1894.9	1878.9	1865.7	1836.5	1809.4	1764.9	1674.6
12.5°	1942.1	1937.3	1932.4	1924.1	1905.3	1894.2	1883.1	1855.3	1831.0	1793.4	1694.8
15°	1948.4	1945.6	1951.2	1947.7	1937.3	1927.5	1916.4	1891.4	1869.2	1837.9	1731.6
17.5°	1974.8	1974.8	1992.2	1994.2	1984.5	1970.6	1954.6	1929.6	1910.9	1884.5	1775.4
20°	2036.6	2034.5	2056.8	2061.0	2037.3	2015.8	1992.2	1961.6	1947.0	1930.3	1818.4
22.5°	2142.9	2133.2	2146.4	2142.3	2095.7	2062.3	2033.2	1995.6	1988.0	1980.3	1866.4
25°	2281.2	2275.7	2284.7	2243.7	2161.7	2116.5	2081.8	2039.4	2039.4	2047.1	1920.6
27.5°	2482.0	2461.2	2430.6	2358.4	2235.4	2177.7	2140.2	2095.0	2106.8	2135.3	1992.2
30°	2687.7	2664.8	2594.6	2483.4	2325.0	2264.5	2220.8	2173.5	2201.3	2253.4	2088.1
32.5°	2890.6	2864.9	2765.5	2625.2	2453.5	2393.1	2350.7	2298.6	2345.1	2432.7	2228.4
35°	3087.3	3064.3	2949.7	2784.3	2624.5	2574.5	2535.5	2490.4	2550.1	2672.4	2426.4
37.5°	3308.2	3283.2	3143.5	2964.3	2832.2	2796.1	2767.6	2722.5	2826.7	3006.0	2702.3
40°	3579.9	3537.5	3349.2	3170.6	3072.7	3055.3	3035.8	3029.6	3191.5	3439.6	3069.9
42.5°	3891.2	3821.7	3564.6	3388.1	3336.7	3349.2	3344.4	3372.2	3648.0	3978.8	3517.4
45°	4202.5	4112.9	3804.4	3620.2	3627.2	3670.9	3698.0	3809.2	4219.9	4597.2	3998.9
47.5°	4466.6	4378.3	4034.4	3871.1	3954.4	4040.6	4114.3	4324.8	4807.7	5205.9	4373.4
50°	4692.4	4609.0	4278.2	4146.9	4334.5	4473.5	4593.0	4905.0	5440.1	5669.4	4636.1
52.5°	4877.2	4821.6	4531.2	4463.1	4768.8	4972.4	5147.5	5521.4	6000.1	6046.0	4840.4
55°	5057.2	5017.6	4802.9	4839.0	5278.8	5556.1	5777.8	6175.2	6482.3	6360.0	5036.3
57.5°	5264.3	5228.1	5112.8	5315.7	5949.4	6298.2	6540.0	6754.7	6906.9	6681.1	5221.2
60°	5475.5	5454.6	5457.4	5845.2	6719.3	7054.2	7187.6	7243.2	7323.8	6983.3	5231.6
62.5°	5677.0	5716.6	5851.4	6434.4	7456.5	7713.6	7781.0	7835.9	7741.4	7031.3	4833.4
65°	6018.2	6082.8	6404.5	7223.1	8267.4	8542.6	8612.1	8423.8	7807.4	6411.5	3931.5
67.5°	6184.9	6303.1	6877.0	7958.2	9054.0	9359.8	9334.0	8462.0	7006.3	4889.0	2523.0
69°	6150.2	6276.0	6986.1	8183.4	9315.3	9592.5	9429.2	7994.4	5968.8	3541.7	1548.8
70°	6012.6	6139.8	6929.8	8175.0	9348.6	9568.2	9252.7	7416.9	5046.8	2589.7	968.6
72.5°	5021.1	5130.8	6152.3	7389.1	8612.1	8433.5	7740.7	5138.5	2459.1	705.3	218.2
75°	3090.7	3151.9	4414.4	5566.5	6504.6	6046.0	5157.2	2556.4	733.1	199.4	120.9
77.5°	1632.9	1660.7	2416.7	3281.1	4123.3	3411.8	2643.2	997.1	337.7	125.1	87.6
80°	965.2	986.0	1301.5	1500.2	1784.4	1490.5	1056.9	612.2	241.8	78.5	77.8
82.5°	552.4	565.6	943.6	833.8	703.2	600.4	526.0	580.2	145.2	52.8	80.6
85°	202.9	205.7	530.9	634.4	418.3	248.8	261.3	480.8	38.9	33.4	63.2
87.5°	94.5	92.4	273.1	388.4	244.6	157.7	203.6	105.6	15.3	21.5	17.4
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1744.1	1744.1	1744.1	1744.1	1744.1	1744.1	1744.1	1744.1	1744.1	1744.1	1744.1
2.5°	1723.3	1697.5	1651.0	1603.0	1554.4	1516.9	1480.1	1450.9	1441.1	1423.1	1424.5
5°	1670.4	1623.2	1525.9	1427.2	1324.4	1239.6	1159.7	1095.1	1063.8	1031.9	1031.9
7.5°	1624.6	1555.8	1403.6	1243.1	1077.0	937.4	811.6	717.1	665.0	623.3	622.6
10°	1607.2	1514.1	1301.5	1071.5	840.1	649.7	500.3	404.4	355.1	323.1	321.7
12.5°	1614.9	1499.5	1223.0	913.0	622.6	417.6	289.8	227.9	207.1	197.3	197.3
15°	1637.1	1495.3	1144.4	758.1	439.8	261.3	192.5	175.8	174.4	174.4	174.4
17.5°	1664.2	1496.7	1063.8	607.3	299.5	186.9	166.1	164.0	165.4	165.4	165.4
20°	1692.0	1497.4	977.0	467.6	211.2	162.6	156.3	155.6	157.0	157.0	157.7
22.5°	1726.0	1500.9	890.1	349.5	174.4	153.6	148.7	148.7	149.4	149.4	148.7
25°	1764.9	1507.8	799.8	259.2	159.1	147.3	143.1	142.4	143.1	142.4	141.8
27.5°	1813.6	1517.6	699.0	202.9	152.2	141.1	137.6	137.6	136.9	136.2	135.5
30°	1874.7	1528.7	585.8	172.3	145.2	135.5	132.0	131.3	130.6	129.2	129.2
32.5°	1967.8	1553.0	473.9	156.3	137.6	127.9	125.1	125.1	123.7	122.3	121.6
35°	2111.0	1601.0	373.8	146.6	129.2	119.5	116.0	116.0	114.7	114.0	113.3
37.5°	2309.0	1673.9	290.5	137.6	120.9	110.5	107.0	106.3	104.9	103.5	102.8
40°	2572.4	1764.2	228.6	129.2	112.6	101.4	98.7	97.3	94.5	92.4	92.4
42.5°	2903.1	1867.1	185.5	120.2	102.8	93.1	91.0	88.9	84.1	82.0	81.3
45°	3249.2	1959.5	157.0	109.8	93.1	84.8	83.4	79.9	73.7	71.6	71.6
47.5°	3498.6	1981.0	138.3	100.1	84.1	75.7	75.0	68.8	63.2	61.8	61.1
50°	3654.3	1938.7	123.0	90.3	75.7	67.4	65.3	57.7	54.2	52.8	52.1
52.5°	3759.2	1862.9	110.5	82.0	68.1	59.8	54.9	49.3	46.6	45.2	45.2
55°	3843.3	1755.9	98.0	74.3	61.8	53.5	46.6	42.4	39.6	38.2	38.2
57.5°	3866.9	1610.7	85.5	68.1	55.6	47.3	39.6	36.8	33.4	32.7	32.7
60°	3695.3	1348.7	75.7	60.5	50.0	41.0	34.7	31.3	27.8	27.1	26.4
62.5°	3242.9	1043.7	66.7	53.5	43.8	35.4	29.9	25.7	22.9	22.9	22.9
65°	2473.7	699.7	58.4	46.6	38.2	29.9	25.7	20.8	19.5	19.5	20.2
67.5°	1480.7	380.8	50.0	39.6	32.7	25.0	21.5	18.1	17.4	18.1	18.1
69°	867.9	223.7	45.2	35.4	28.5	22.2	18.8	16.0	17.4	18.1	18.1
70°	535.7	150.8	41.7	32.0	25.7	20.2	17.4	15.3	16.7	17.4	17.4
72.5°	149.4	77.8	33.4	25.0	20.8	16.7	13.9	13.9	16.0	16.7	16.7
75°	97.3	57.7	25.7	18.8	16.0	13.2	11.8	13.2	15.3	16.0	16.0
77.5°	80.6	47.3	20.8	15.3	13.2	12.5	11.1	11.8	13.9	14.6	14.6
80°	73.7	33.4	16.7	13.9	11.8	11.1	10.4	9.7	12.5	13.2	13.2
82.5°	70.2	26.4	14.6	12.5	11.1	9.7	9.0	9.7	11.1	11.8	12.5
85°	43.8	17.4	13.2	11.8	9.7	9.0	9.0	9.0	10.4	11.1	11.1
87.5°	16.0	13.9	11.8	9.7	8.3	8.3	8.3	8.3	9.0	10.4	10.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)