

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: P301814

Luminaire Tested: **GLNA-AF-03-LED-E1-SL4-8030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301814
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-03-LED-E1-SL4-8030-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 80 CRI, 3000K CCT 1050mA 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: 10935.8 lumens
Efficiency: N/A
Efficacy: 65.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 166
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



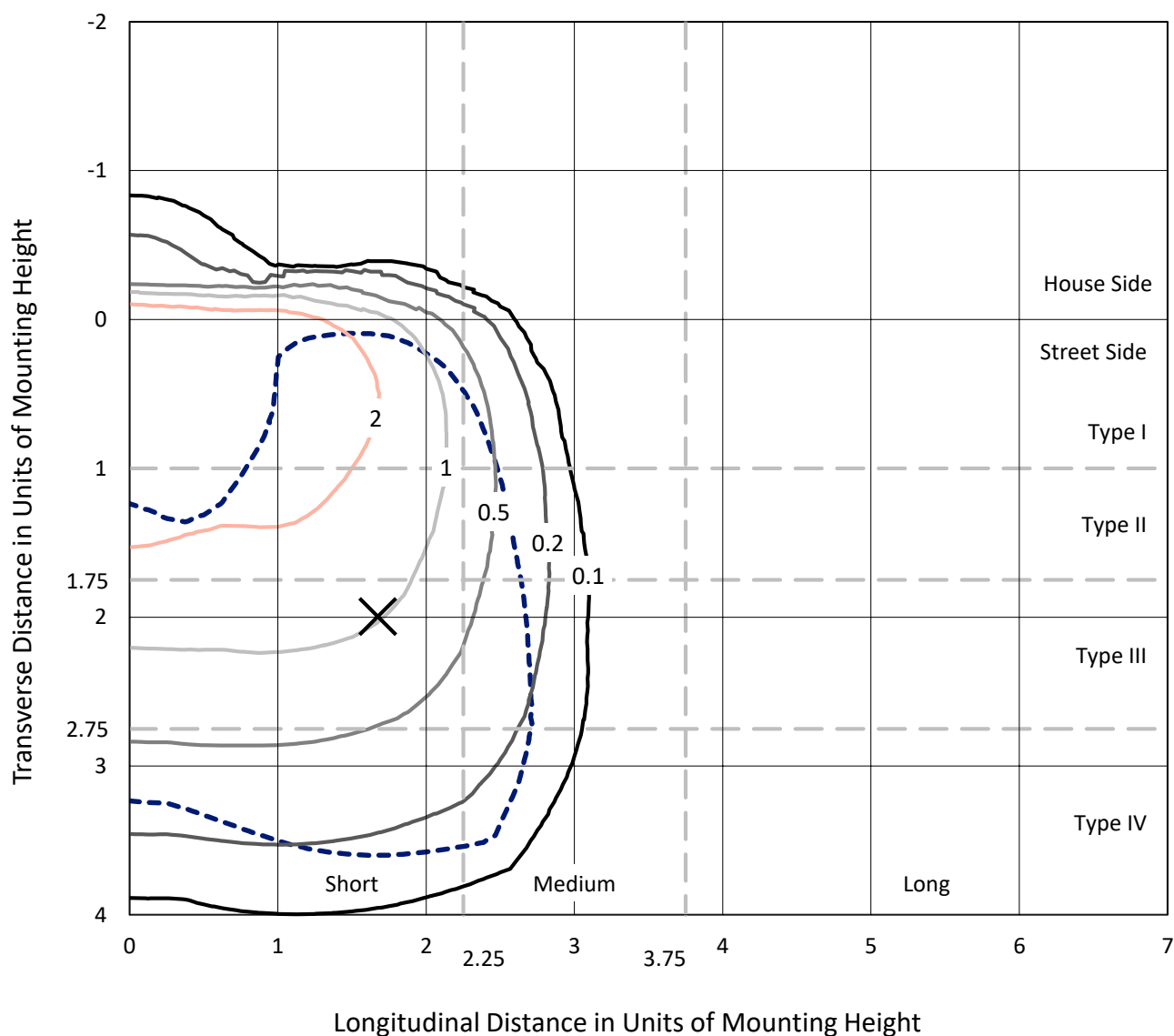
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

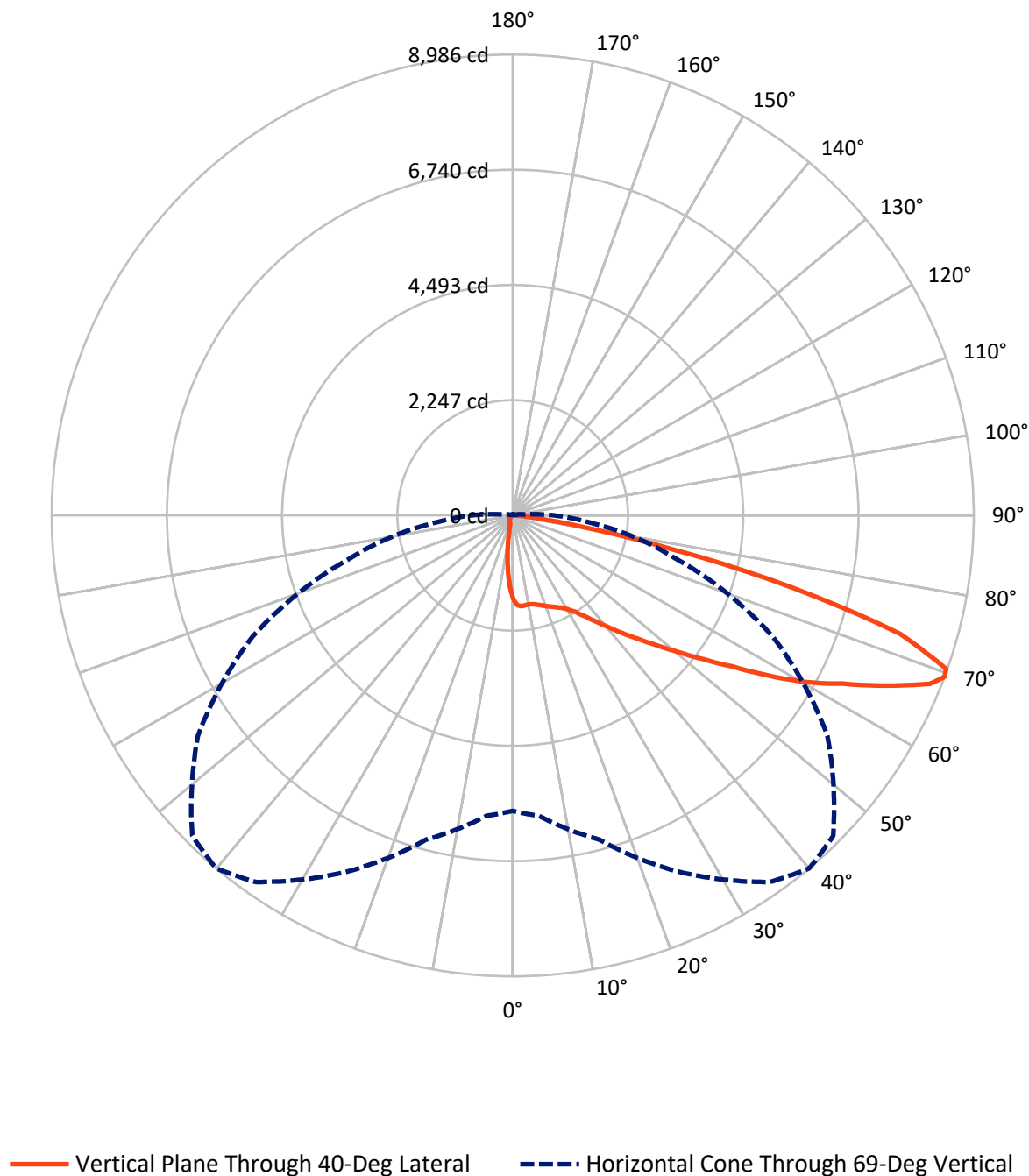


Based on 20 foot mounting height. Maximum calculated value = 4.5 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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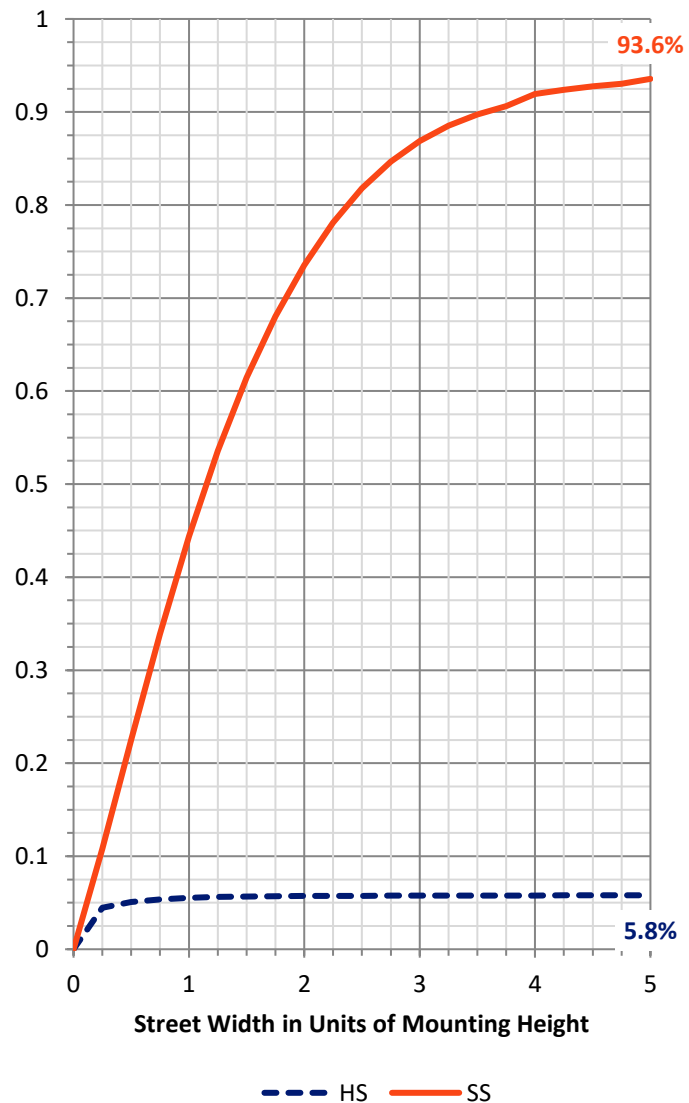
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	639.8	0.0	639.8
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	10296.0	0.0	10296.0
	% Fixture	94.1	0.0	94.1
Total	Lumens	10935.8	0.0	10935.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.5	1.2
10°-20°	325.8	3.0
20°-30°	548.7	5.0
30°-40°	898.3	8.2
40°-50°	1555.3	14.2
50°-60°	2449.8	22.4
60°-70°	3199.4	29.3
70°-80°	1647.8	15.1
80°-90°	178.2	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°	10935.8	100.0
0°-180°	10935.8	100.0

Coefficient of Utilization



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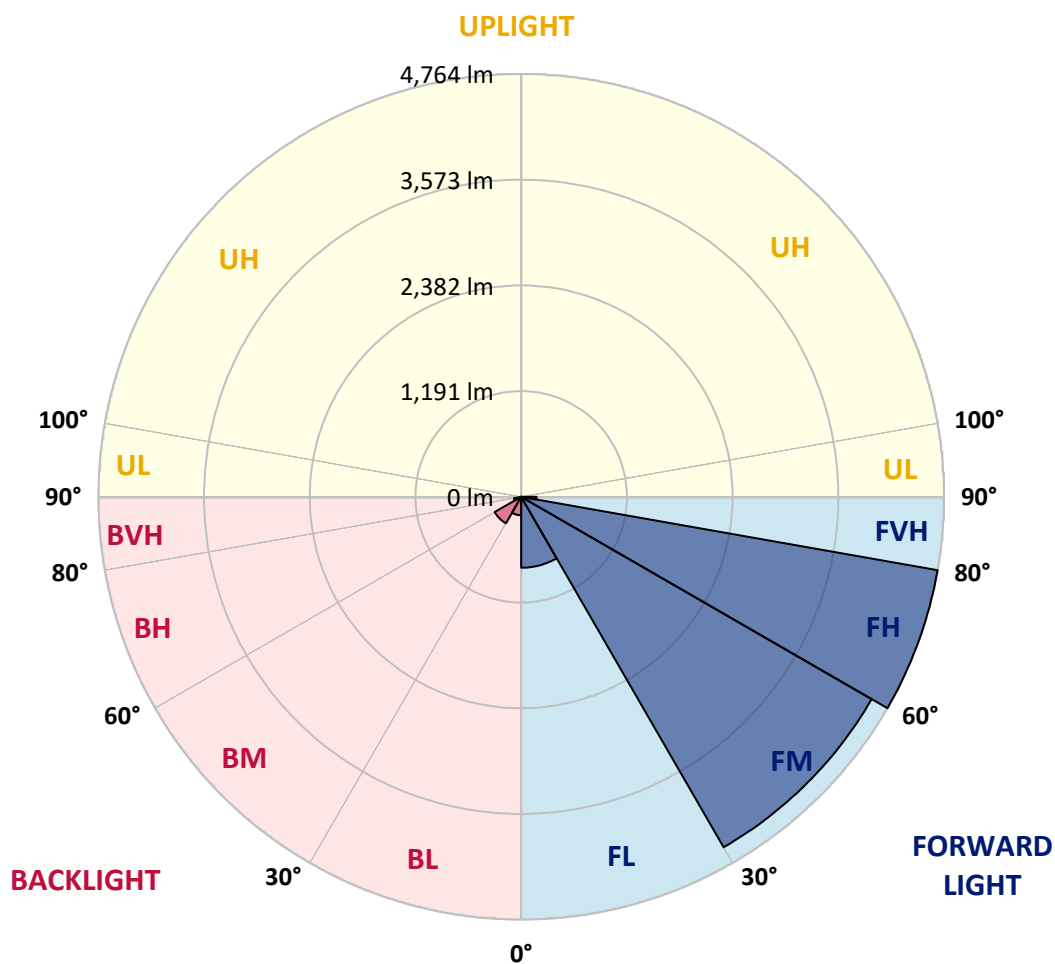
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	799.7	7.3			
FM	(30°-60°)	4559.6	41.7			
FH	(60°-80°)	4764.1	43.6			G2/5000
FVH	(80°-90°)	172.6	1.6			G2/225
BL	(0°-30°)	207.3	1.9	B1/500		
BM	(30°-60°)	343.9	3.1	B1/1000		
BH	(60°-80°)	83.1	0.8	B0/110		G0/110
BVH	(80°-90°)	5.6	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-G2

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	1633.9	1633.9	1633.9	1633.9	1633.9	1633.9	1633.9	1633.9	1633.9	1633.9	1633.9
2.5°	1794.0	1784.2	1778.4	1770.6	1760.8	1752.3	1749.1	1725.0	1702.2	1671.0	1635.2
5°	1827.2	1823.9	1813.5	1803.1	1791.4	1778.4	1771.2	1742.6	1710.0	1664.5	1602.0
7.5°	1830.5	1826.5	1813.5	1799.2	1782.9	1767.3	1754.9	1726.3	1696.4	1650.1	1574.0
10°	1825.2	1820.7	1810.9	1795.3	1775.1	1760.2	1747.8	1720.4	1695.1	1653.4	1568.8
12.5°	1819.4	1814.8	1810.3	1802.5	1784.9	1774.5	1764.1	1738.0	1715.2	1680.1	1587.7
15°	1825.2	1822.6	1827.8	1824.6	1814.8	1805.7	1795.3	1771.9	1751.0	1721.7	1622.2
17.5°	1850.0	1850.0	1866.3	1868.2	1859.1	1846.1	1831.1	1807.7	1790.1	1765.4	1663.2
20°	1907.9	1906.0	1926.8	1930.7	1908.6	1888.4	1866.3	1837.6	1823.9	1808.3	1703.5
22.5°	2007.5	1998.4	2010.8	2006.9	1963.2	1932.0	1904.7	1869.5	1862.3	1855.2	1748.4
25°	2137.0	2131.8	2140.3	2101.9	2025.1	1982.8	1950.2	1910.5	1910.5	1917.7	1799.2
27.5°	2325.2	2305.6	2277.0	2209.3	2094.1	2040.1	2004.9	1962.6	1973.7	2000.3	1866.3
30°	2517.8	2496.4	2430.6	2326.5	2178.1	2121.4	2080.4	2036.2	2062.2	2111.0	1956.1
32.5°	2707.9	2683.8	2590.8	2459.3	2298.5	2241.8	2202.1	2153.3	2196.9	2279.0	2087.6
35°	2892.1	2870.7	2763.3	2608.3	2458.6	2411.7	2375.3	2333.0	2389.0	2503.5	2273.1
37.5°	3099.1	3075.7	2944.9	2776.9	2653.2	2619.4	2592.7	2550.4	2648.0	2816.0	2531.5
40°	3353.7	3314.0	3137.5	2970.3	2878.5	2862.2	2844.0	2838.1	2989.8	3222.2	2875.9
42.5°	3645.3	3580.2	3339.3	3174.0	3125.8	3137.5	3133.0	3159.0	3417.5	3727.3	3295.1
45°	3936.9	3852.9	3563.9	3391.4	3397.9	3438.9	3464.3	3568.5	3953.2	4306.6	3746.2
47.5°	4184.3	4101.6	3779.4	3626.4	3704.5	3785.2	3854.2	4051.5	4503.9	4876.9	4097.0
50°	4395.8	4317.7	4007.9	3884.8	4060.6	4190.8	4302.7	4595.0	5096.2	5311.0	4343.1
52.5°	4569.0	4516.9	4244.8	4181.0	4467.4	4658.2	4822.2	5172.4	5620.9	5663.9	4534.5
55°	4737.6	4700.5	4499.3	4533.2	4945.2	5204.9	5412.6	5784.9	6072.7	5958.1	4718.0
57.5°	4931.5	4897.7	4789.6	4979.7	5573.4	5900.2	6126.7	6327.8	6470.4	6258.8	4891.2
60°	5129.4	5109.9	5112.5	5475.7	6294.6	6608.4	6733.4	6785.4	6860.9	6542.0	4901.0
62.5°	5318.2	5355.3	5481.6	6027.7	6985.3	7226.1	7289.3	7340.7	7252.2	6586.9	4528.0
65°	5637.8	5698.4	5999.7	6766.6	7744.9	8002.7	8067.8	7891.4	7314.0	6006.3	3683.0
67.5°	5794.0	5904.7	6442.4	7455.3	8481.8	8768.2	8744.1	7927.2	6563.5	4580.0	2363.6
69°	5761.5	5879.3	6544.6	7666.2	8726.5	8986.3	8833.3	7489.1	5591.6	3317.9	1451.0
70°	5632.6	5751.7	6491.9	7658.3	8757.8	8963.5	8668.0	6948.2	4727.8	2426.1	907.4
72.5°	4703.7	4806.6	5763.5	6922.1	8067.8	7900.5	7251.5	4813.7	2303.7	660.7	204.4
75°	2895.4	2952.7	4135.4	5214.7	6093.5	5663.9	4831.3	2394.8	686.7	186.8	113.3
77.5°	1529.7	1555.8	2264.0	3073.8	3862.7	3196.1	2476.2	934.1	316.4	117.2	82.0
80°	904.2	923.7	1219.2	1405.4	1671.6	1396.3	990.1	573.5	226.5	73.6	72.9
82.5°	517.5	529.9	884.0	781.1	658.8	562.4	492.8	543.5	136.0	49.5	75.5
85°	190.1	192.7	497.3	594.3	391.9	233.0	244.8	450.5	36.5	31.2	59.2
87.5°	88.5	86.6	255.8	363.9	229.1	147.8	190.7	98.9	14.3	20.2	16.3
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1633.9	1633.9	1633.9	1633.9	1633.9	1633.9	1633.9	1633.9	1633.9	1633.9	1633.9
2.5°	1614.3	1590.3	1546.6	1501.7	1456.2	1421.0	1386.5	1359.2	1350.1	1333.1	1334.4
5°	1564.9	1520.6	1429.5	1337.0	1240.7	1161.3	1086.4	1025.9	996.6	966.7	966.7
7.5°	1521.9	1457.5	1314.9	1164.5	1009.0	878.1	760.3	671.8	623.0	583.9	583.2
10°	1505.6	1418.4	1219.2	1003.8	787.0	608.6	468.7	378.8	332.6	302.7	301.4
12.5°	1512.8	1404.7	1145.7	855.3	583.2	391.2	271.4	213.5	194.0	184.9	184.9
15°	1533.6	1400.8	1072.1	710.2	412.0	244.8	180.3	164.7	163.4	163.4	163.4
17.5°	1559.0	1402.1	996.6	568.9	280.6	175.1	155.6	153.6	154.9	154.9	154.9
20°	1585.0	1402.8	915.2	438.1	197.9	152.3	146.5	145.8	147.1	147.1	147.8
22.5°	1616.9	1406.0	833.9	327.4	163.4	143.9	139.3	139.3	140.0	140.0	139.3
25°	1653.4	1412.5	749.2	242.8	149.1	138.0	134.1	133.4	134.1	133.4	132.8
27.5°	1699.0	1421.7	654.8	190.1	142.6	132.1	128.9	128.9	128.2	127.6	126.9
30°	1756.2	1432.1	548.7	161.4	136.0	126.9	123.7	123.0	122.4	121.1	121.1
32.5°	1843.5	1454.9	443.9	146.5	128.9	119.8	117.2	117.2	115.9	114.6	113.9
35°	1977.6	1499.8	350.2	137.3	121.1	112.0	108.7	108.7	107.4	106.8	106.1
37.5°	2163.1	1568.1	272.1	128.9	113.3	103.5	100.2	99.6	98.3	97.0	96.3
40°	2409.8	1652.7	214.2	121.1	105.5	95.0	92.4	91.1	88.5	86.6	86.6
42.5°	2719.6	1749.1	173.8	112.6	96.3	87.2	85.3	83.3	78.8	76.8	76.2
45°	3043.8	1835.7	147.1	102.8	87.2	79.4	78.1	74.9	69.0	67.0	67.0
47.5°	3277.5	1855.8	129.5	93.7	78.8	71.0	70.3	64.4	59.2	57.9	57.3
50°	3423.3	1816.1	115.2	84.6	71.0	63.1	61.2	54.0	50.8	49.5	48.8
52.5°	3521.6	1745.2	103.5	76.8	63.8	56.0	51.4	46.2	43.6	42.3	42.3
55°	3600.4	1644.9	91.8	69.7	57.9	50.1	43.6	39.7	37.1	35.8	35.8
57.5°	3622.5	1508.9	80.1	63.8	52.1	44.3	37.1	34.5	31.2	30.6	30.6
60°	3461.7	1263.5	71.0	56.6	46.9	38.4	32.5	29.3	26.0	25.4	24.7
62.5°	3038.0	977.7	62.5	50.1	41.0	33.2	28.0	24.1	21.5	21.5	21.5
65°	2317.4	655.5	54.7	43.6	35.8	28.0	24.1	19.5	18.2	18.2	18.9
67.5°	1387.2	356.7	46.9	37.1	30.6	23.4	20.2	16.9	16.3	16.9	16.9
69°	813.0	209.6	42.3	33.2	26.7	20.8	17.6	15.0	16.3	16.9	16.9
70°	501.9	141.3	39.1	29.9	24.1	18.9	16.3	14.3	15.6	16.3	16.3
72.5°	140.0	72.9	31.2	23.4	19.5	15.6	13.0	13.0	15.0	15.6	15.6
75°	91.1	54.0	24.1	17.6	15.0	12.4	11.1	12.4	14.3	15.0	15.0
77.5°	75.5	44.3	19.5	14.3	12.4	11.7	10.4	11.1	13.0	13.7	13.7
80°	69.0	31.2	15.6	13.0	11.1	10.4	9.8	9.1	11.7	12.4	12.4
82.5°	65.7	24.7	13.7	11.7	10.4	9.1	8.5	9.1	10.4	11.1	11.7
85°	41.0	16.3	12.4	11.1	9.1	8.5	8.5	8.5	9.8	10.4	10.4
87.5°	15.0	13.0	11.1	9.1	7.8	7.8	7.8	7.8	8.5	9.8	9.8
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)