

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: P301940

Luminaire Tested: **GLNA-AF-04-LED-E1-SL4-8030-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301940
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-SL4-8030-600-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3000K CCT 600mA 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: 9518.9 lumens
Efficiency: N/A
Efficacy: 73.8 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): 129
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



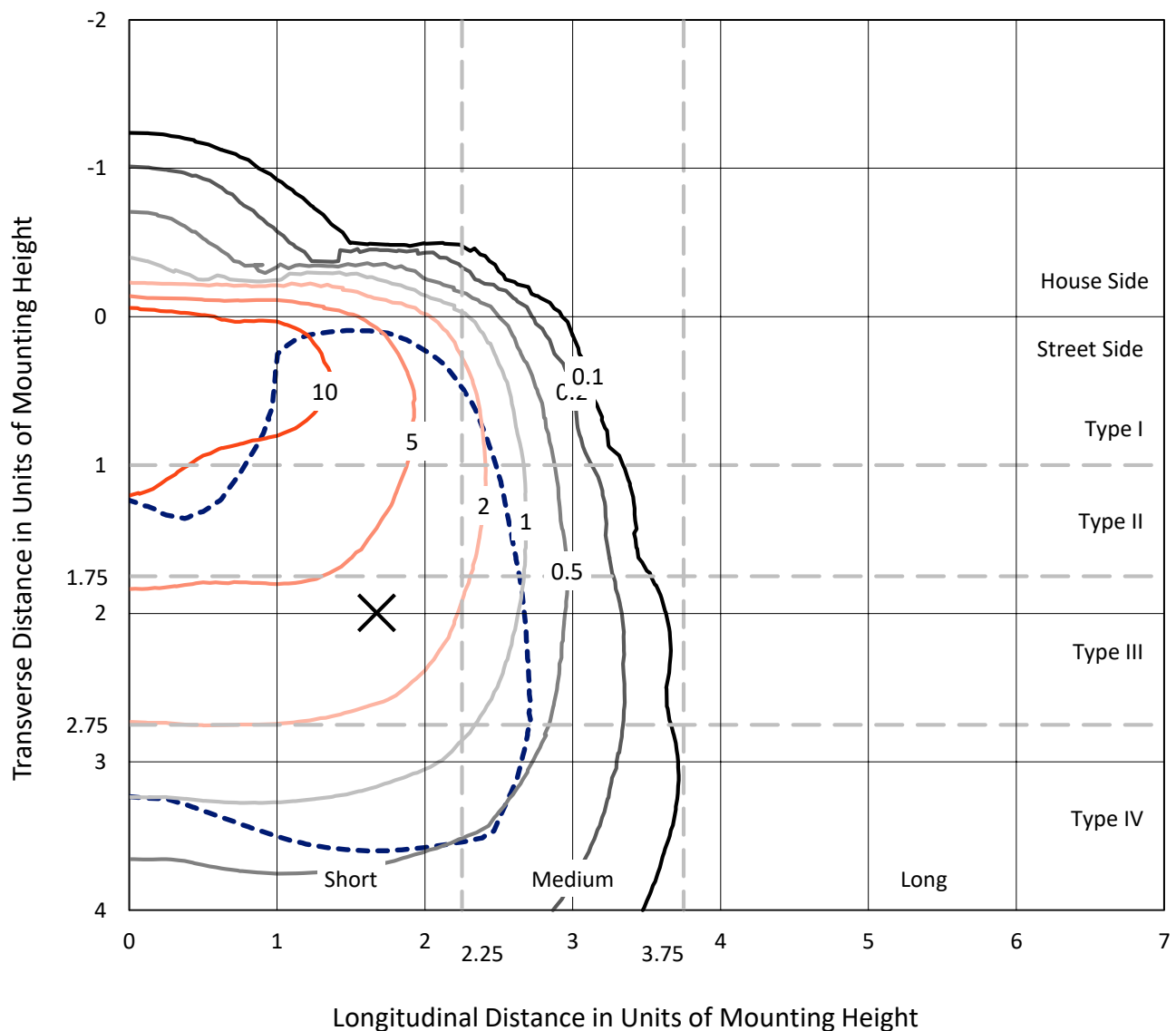
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Iso-Footcandle Lines of Horizontal Illumination

✗ Max cd

--- 1/2 Max cd

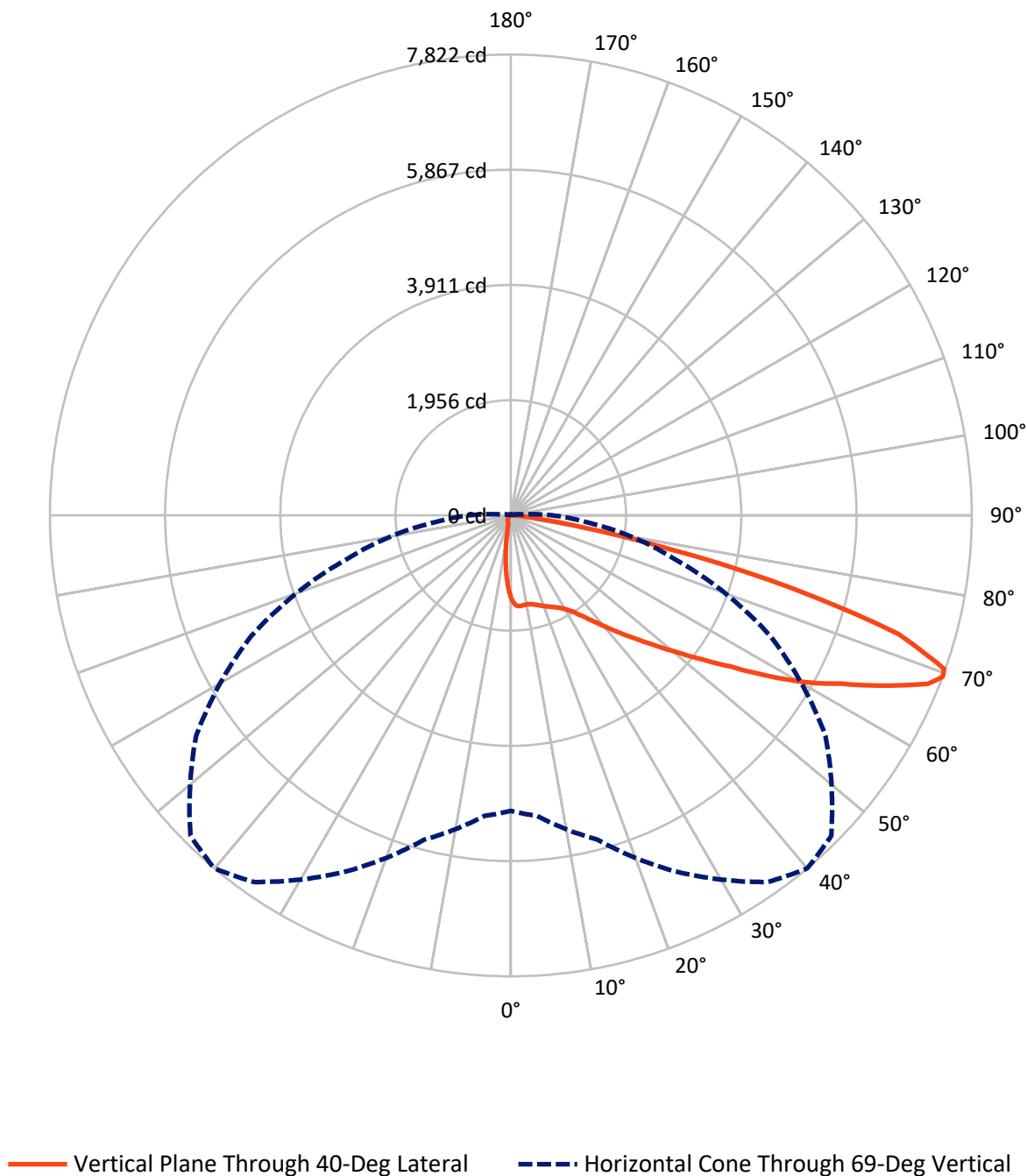


Based on 10 foot mounting height. Maximum calculated value = 15.6 fc
Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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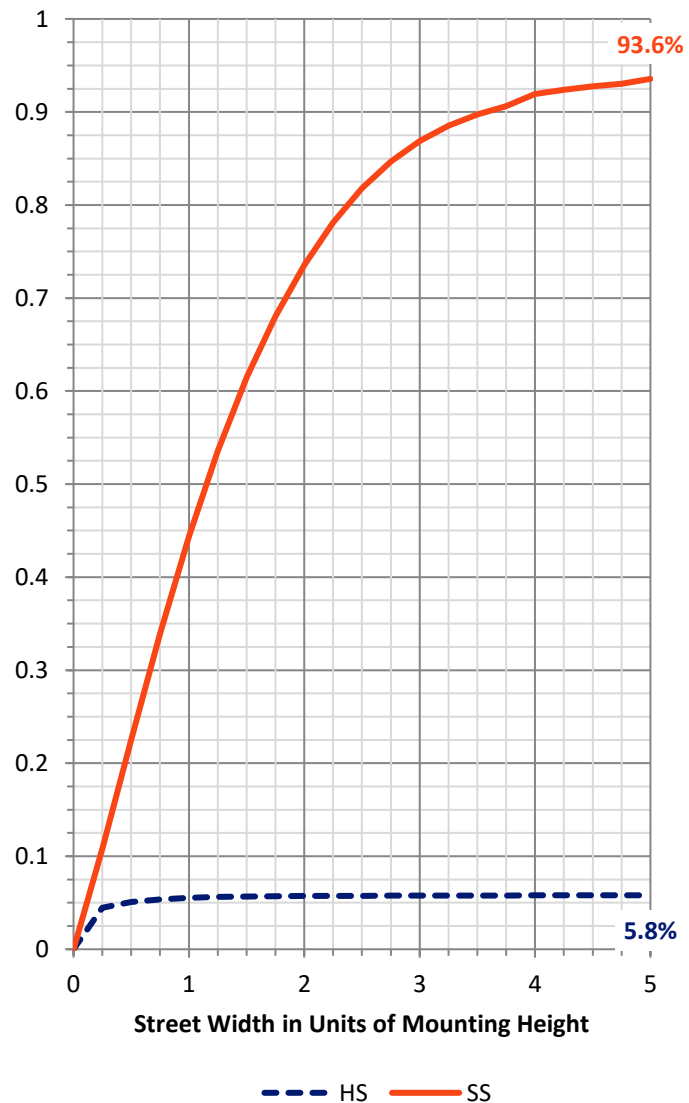
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	556.9	0.0	556.9
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	8962.0	0.0	8962.0
	% Fixture	94.1	0.0	94.1
Total	Lumens	9518.9	0.0	9518.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.3	1.2
10°-20°	283.6	3.0
20°-30°	477.6	5.0
30°-40°	781.9	8.2
40°-50°	1353.8	14.2
50°-60°	2132.4	22.4
60°-70°	2784.8	29.3
70°-80°	1434.3	15.1
80°-90°	155.1	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°	9518.9	100.0
0°-180°	9518.9	100.0



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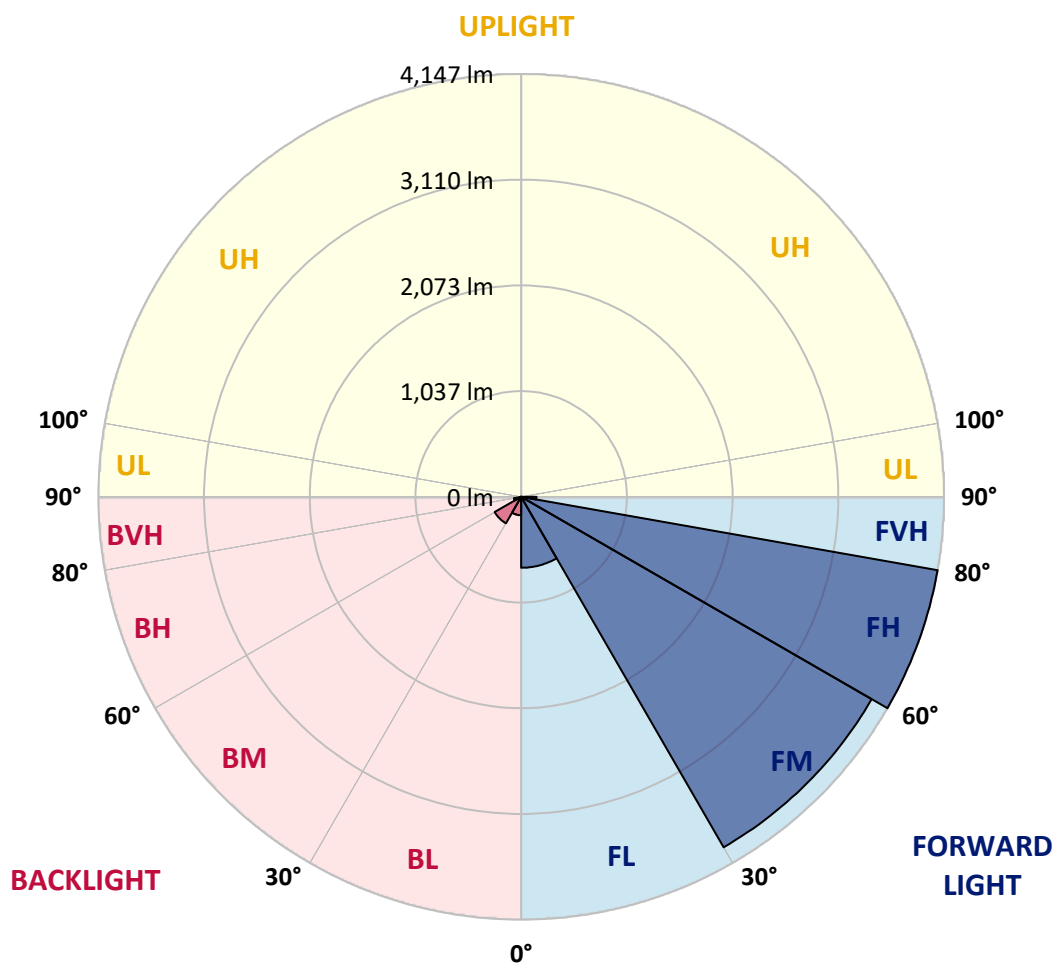
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	696.1	7.3			
FM	(30°-60°)	3968.8	41.7			
FH	(60°-80°)	4146.8	43.6			G2/5000
FVH	(80°-90°)	150.3	1.6			G2/225
BL	(0°-30°)	180.4	1.9	B1/500		
BM	(30°-60°)	299.3	3.1	B1/1000		
BH	(60°-80°)	72.3	0.8	B0/110		G0/110
BVH	(80°-90°)	4.9	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°	1422.2	1422.2	1422.2	1422.2	1422.2	1422.2	1422.2	1422.2	1422.2	1422.2	1422.2
2.5°	1561.6	1553.1	1548.0	1541.2	1532.7	1525.3	1522.5	1501.5	1481.7	1454.5	1423.3
5°	1590.5	1587.6	1578.6	1569.5	1559.3	1548.0	1541.7	1516.8	1488.5	1448.8	1394.4
7.5°	1593.3	1589.9	1578.6	1566.1	1551.9	1538.3	1527.6	1502.6	1476.6	1436.3	1370.0
10°	1588.8	1584.8	1576.3	1562.7	1545.1	1532.1	1521.3	1497.5	1475.4	1439.2	1365.5
12.5°	1583.7	1579.7	1575.7	1568.9	1553.6	1544.6	1535.5	1512.8	1493.0	1462.4	1381.9
15°	1588.8	1586.5	1591.0	1588.2	1579.7	1571.8	1562.7	1542.3	1524.2	1498.7	1412.0
17.5°	1610.3	1610.3	1624.5	1626.2	1618.2	1606.9	1593.9	1573.5	1558.2	1536.6	1447.7
20°	1660.7	1659.0	1677.1	1680.5	1661.3	1643.7	1624.5	1599.5	1587.6	1574.0	1482.8
22.5°	1747.4	1739.5	1750.2	1746.8	1708.9	1681.7	1657.9	1627.3	1621.1	1614.8	1521.9
25°	1860.2	1855.6	1863.0	1829.6	1762.7	1725.9	1697.5	1663.0	1663.0	1669.2	1566.1
27.5°	2023.9	2006.9	1982.0	1923.1	1822.8	1775.7	1745.1	1708.3	1717.9	1741.2	1624.5
30°	2191.6	2172.9	2115.7	2025.0	1895.9	1846.6	1810.9	1772.3	1795.0	1837.5	1702.6
32.5°	2357.1	2336.1	2255.1	2140.6	2000.7	1951.4	1916.8	1874.3	1912.3	1983.7	1817.1
35°	2517.4	2498.7	2405.2	2270.4	2140.1	2099.3	2067.5	2030.7	2079.4	2179.2	1978.6
37.5°	2697.6	2677.2	2563.3	2417.1	2309.5	2280.0	2256.8	2220.0	2304.9	2451.1	2203.5
40°	2919.1	2884.6	2731.0	2585.4	2505.5	2491.4	2475.5	2470.4	2602.4	2804.7	2503.3
42.5°	3173.0	3116.3	2906.7	2762.8	2720.8	2731.0	2727.1	2749.7	2974.7	3244.4	2868.1
45°	3426.8	3353.7	3102.2	2952.0	2957.7	2993.4	3015.5	3106.1	3441.0	3748.6	3260.8
47.5°	3642.1	3570.2	3289.7	3156.5	3224.5	3294.8	3354.9	3526.5	3920.3	4245.0	3566.2
50°	3826.3	3758.3	3488.6	3381.5	3534.5	3647.8	3745.2	3999.7	4435.9	4622.9	3780.4
52.5°	3977.0	3931.7	3694.8	3639.3	3888.6	4054.6	4197.4	4502.2	4892.6	4930.0	3947.0
55°	4123.7	4091.4	3916.4	3945.8	4304.5	4530.6	4711.3	5035.4	5285.8	5186.1	4106.7
57.5°	4292.6	4263.1	4169.1	4334.5	4851.3	5135.7	5332.9	5508.0	5632.0	5447.9	4257.5
60°	4464.8	4447.8	4450.1	4766.3	5479.1	5752.2	5860.9	5906.3	5972.0	5694.4	4266.0
62.5°	4629.2	4661.4	4771.4	5246.7	6080.2	6289.9	6344.8	6389.6	6312.5	5733.5	3941.3
65°	4907.4	4960.0	5222.4	5889.8	6741.4	6965.8	7022.5	6868.9	6366.4	5228.0	3205.8
67.5°	5043.3	5139.7	5607.7	6489.3	7382.8	7632.1	7611.2	6900.1	5713.1	3986.6	2057.3
69°	5015.0	5117.6	5696.6	6672.9	7595.9	7822.0	7688.8	6518.8	4867.1	2888.0	1263.0
70°	4902.8	5006.5	5650.7	6666.1	7623.1	7802.1	7544.9	6047.9	4115.2	2111.7	789.8
72.5°	4094.3	4183.8	5016.7	6025.3	7022.5	6876.9	6312.0	4190.0	2005.2	575.1	177.9
75°	2520.3	2570.1	3599.6	4539.1	5304.0	4930.0	4205.3	2084.5	597.8	162.6	98.6
77.5°	1331.5	1354.2	1970.6	2675.5	3362.2	2782.0	2155.4	813.1	275.4	102.0	71.4
80°	787.0	804.0	1061.2	1223.3	1455.0	1215.4	861.8	499.2	197.2	64.0	63.5
82.5°	450.4	461.2	769.4	679.9	573.4	489.5	428.9	473.1	118.4	43.1	65.7
85°	165.4	167.7	432.9	517.3	341.1	202.8	213.0	392.1	31.7	27.2	51.6
87.5°	77.1	75.4	222.7	316.7	199.4	128.6	166.0	86.1	12.5	17.6	14.2
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1422.2	1422.2	1422.2	1422.2	1422.2	1422.2	1422.2	1422.2	1422.2	1422.2	1422.2
2.5°	1405.2	1384.2	1346.2	1307.2	1267.5	1236.9	1206.9	1183.1	1175.1	1160.4	1161.5
5°	1362.1	1323.6	1244.3	1163.8	1079.9	1010.8	945.7	893.0	867.5	841.4	841.4
7.5°	1324.7	1268.6	1144.5	1013.7	878.2	764.3	661.8	584.7	542.2	508.2	507.7
10°	1310.6	1234.6	1061.2	873.7	685.0	529.8	408.0	329.8	289.5	263.5	262.3
12.5°	1316.8	1222.7	997.2	744.5	507.7	340.5	236.3	185.8	168.8	160.9	160.9
15°	1334.9	1219.3	933.2	618.2	358.7	213.0	156.9	143.4	142.2	142.2	142.2
17.5°	1357.0	1220.5	867.5	495.2	244.2	152.4	135.4	133.7	134.9	134.9	134.9
20°	1379.7	1221.0	796.6	381.3	172.2	132.6	127.5	126.9	128.1	128.1	128.6
22.5°	1407.4	1223.9	725.8	285.0	142.2	125.2	121.3	121.3	121.8	121.8	121.3
25°	1439.2	1229.5	652.2	211.3	129.8	120.1	116.7	116.2	116.7	116.2	115.6
27.5°	1478.8	1237.5	570.0	165.4	124.1	115.0	112.2	112.2	111.6	111.1	110.5
30°	1528.7	1246.5	477.6	140.5	118.4	110.5	107.7	107.1	106.5	105.4	105.4
32.5°	1604.6	1266.4	386.4	127.5	112.2	104.3	102.0	102.0	100.9	99.7	99.2
35°	1721.3	1305.5	304.8	119.6	105.4	97.5	94.6	94.6	93.5	92.9	92.4
37.5°	1882.8	1364.9	236.8	112.2	98.6	90.1	87.3	86.7	85.6	84.4	83.9
40°	2097.6	1438.6	186.4	105.4	91.8	82.7	80.5	79.3	77.1	75.4	75.4
42.5°	2367.3	1522.5	151.3	98.0	83.9	75.9	74.2	72.5	68.6	66.9	66.3
45°	2649.4	1597.8	128.1	89.5	75.9	69.1	68.0	65.2	60.1	58.4	58.4
47.5°	2852.8	1615.4	112.8	81.6	68.6	61.8	61.2	56.1	51.6	50.4	49.9
50°	2979.8	1580.8	100.3	73.7	61.8	55.0	53.3	47.0	44.2	43.1	42.5
52.5°	3065.3	1519.1	90.1	66.9	55.5	48.7	44.8	40.2	38.0	36.8	36.8
55°	3133.9	1431.8	79.9	60.6	50.4	43.6	38.0	34.6	32.3	31.2	31.2
57.5°	3153.1	1313.4	69.7	55.5	45.3	38.5	32.3	30.0	27.2	26.6	26.6
60°	3013.2	1099.8	61.8	49.3	40.8	33.4	28.3	25.5	22.7	22.1	21.5
62.5°	2644.3	851.0	54.4	43.6	35.7	28.9	24.4	21.0	18.7	18.7	18.7
65°	2017.1	570.6	47.6	38.0	31.2	24.4	21.0	17.0	15.9	15.9	16.4
67.5°	1207.4	310.5	40.8	32.3	26.6	20.4	17.6	14.7	14.2	14.7	14.7
69°	707.7	182.4	36.8	28.9	23.2	18.1	15.3	13.0	14.2	14.7	14.7
70°	436.9	123.0	34.0	26.1	21.0	16.4	14.2	12.5	13.6	14.2	14.2
72.5°	121.8	63.5	27.2	20.4	17.0	13.6	11.3	11.3	13.0	13.6	13.6
75°	79.3	47.0	21.0	15.3	13.0	10.8	9.6	10.8	12.5	13.0	13.0
77.5°	65.7	38.5	17.0	12.5	10.8	10.2	9.1	9.6	11.3	11.9	11.9
80°	60.1	27.2	13.6	11.3	9.6	9.1	8.5	7.9	10.2	10.8	10.8
82.5°	57.2	21.5	11.9	10.2	9.1	7.9	7.4	7.9	9.1	9.6	10.2
85°	35.7	14.2	10.8	9.6	7.9	7.4	7.4	7.4	8.5	9.1	9.1
87.5°	13.0	11.3	9.6	7.9	6.8	6.8	6.8	6.8	7.4	8.5	8.5
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)