

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: P301807

Luminaire Tested: **GLNA-AF-02-LED-E1-SL4-7030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301807  
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-02-LED-E1-SL4-7030-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(2) 70 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: 8686.7 lumens  
Efficiency: N/A  
Efficacy: 76.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 113  
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

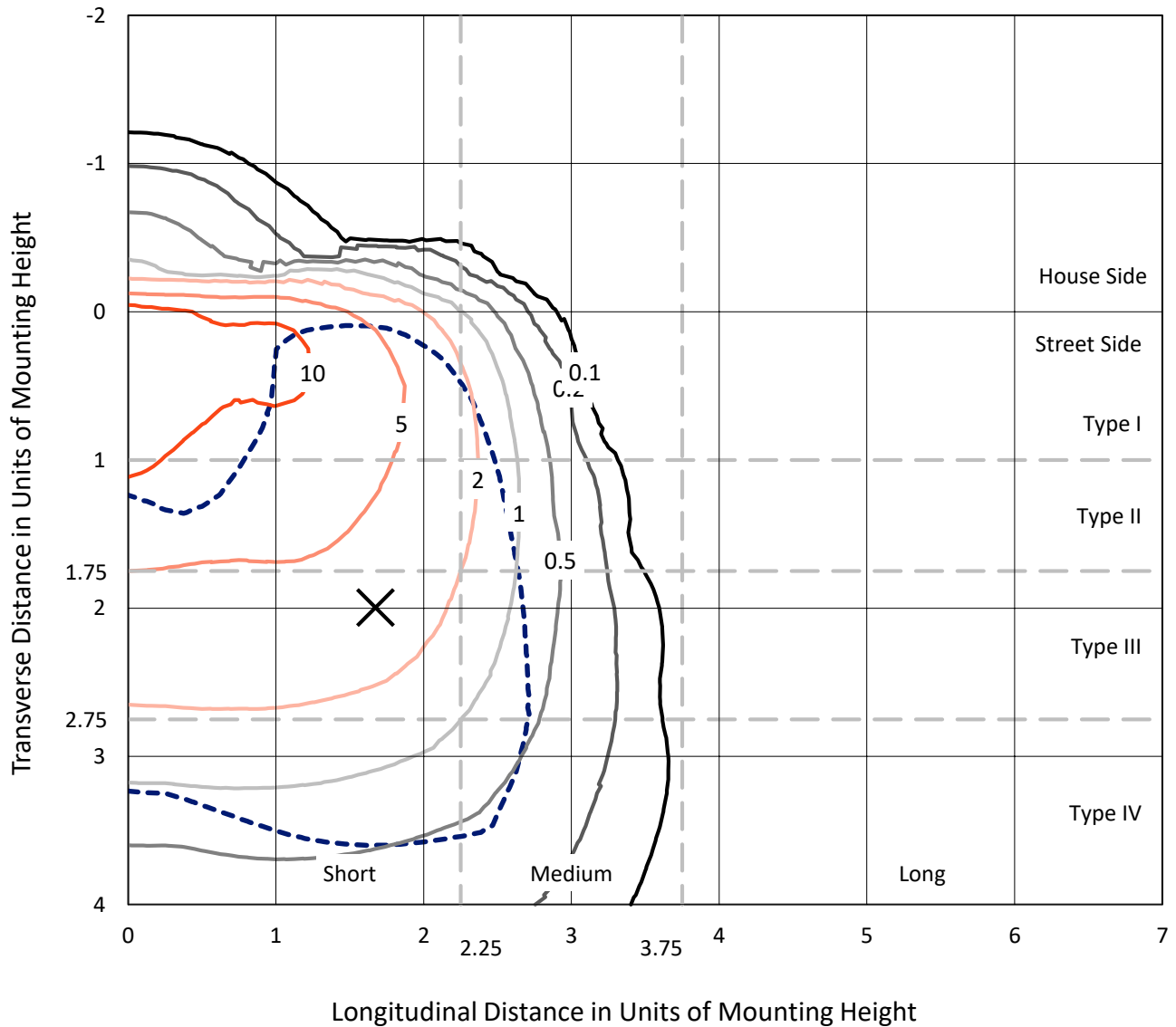


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### Iso-Footcandle Lines of Horizontal Illumination

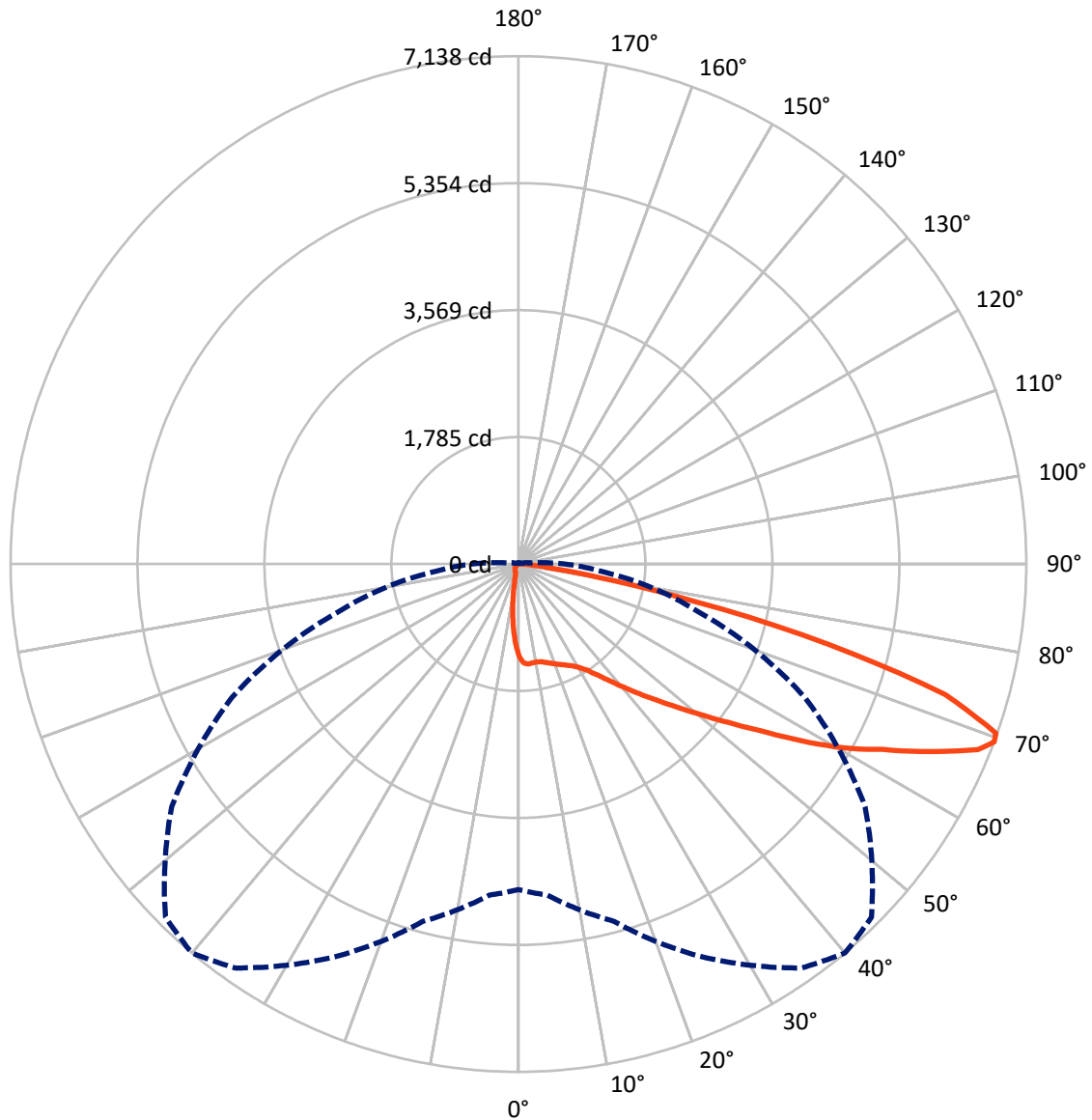
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 14.2 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

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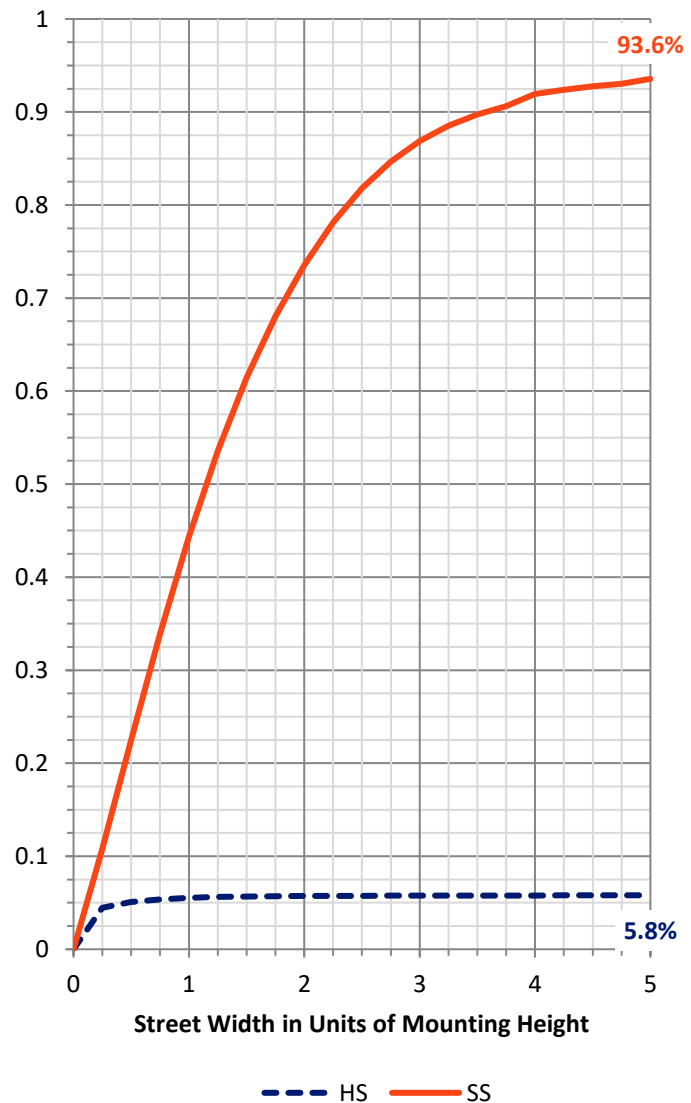
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	508.2	0.0	508.2
	% Fixture	5.9	0.0	5.9
<b>Street Side</b>	Lumens	8178.5	0.0	8178.5
	% Fixture	94.1	0.0	94.1
<b>Total</b>	Lumens	8686.7	0.0	8686.7
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	105.2	1.2
10°-20°	258.8	3.0
20°-30°	435.9	5.0
30°-40°	713.5	8.2
40°-50°	1235.5	14.2
50°-60°	1946.0	22.4
60°-70°	2541.4	29.3
70°-80°	1308.9	15.1
80°-90°	141.6	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°	8686.7	100.0
0°-180°	8686.7	100.0

**Coefficient of Utilization**



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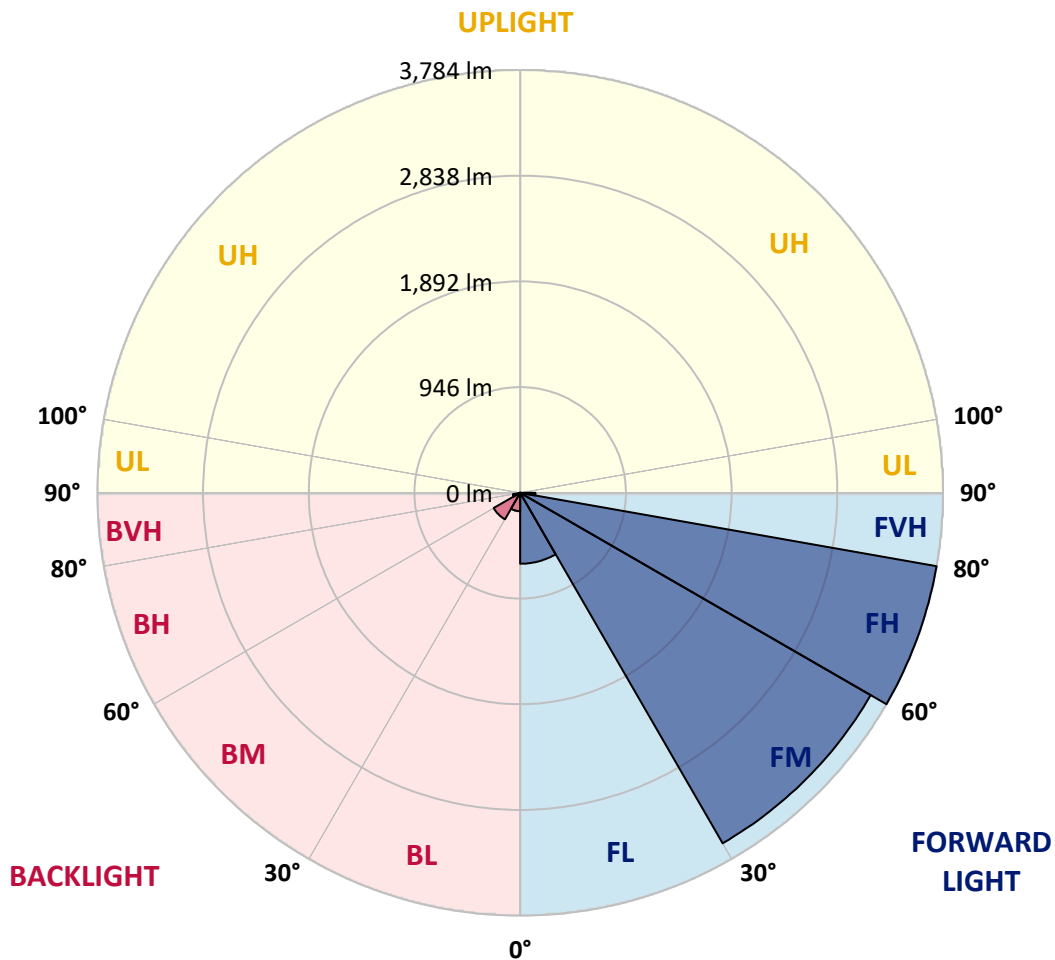
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	635.2	7.3			
FM	(30°-60°)	3621.8	41.7			
FH	(60°-80°)	3784.3	43.6			G2/5000
FVH	(80°-90°)	137.1	1.6			G2/225
BL	(0°-30°)	164.6	1.9	B1/500		
BM	(30°-60°)	273.2	3.1	B1/1000		
BH	(60°-80°)	66.0	0.8	B0/110		G0/110
BVH	(80°-90°)	4.4	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°	1297.8	1297.8	1297.8	1297.8	1297.8	1297.8	1297.8	1297.8	1297.8	1297.8	1297.8
2.5°	1425.0	1417.3	1412.6	1406.4	1398.7	1392.0	1389.4	1370.2	1352.1	1327.3	1298.9
5°	1451.4	1448.8	1440.6	1432.3	1423.0	1412.6	1406.9	1384.2	1358.3	1322.1	1272.5
7.5°	1454.0	1450.9	1440.6	1429.2	1416.3	1403.8	1394.0	1371.3	1347.5	1310.8	1250.3
10°	1449.9	1446.2	1438.5	1426.1	1410.0	1398.2	1388.3	1366.6	1346.4	1313.4	1246.1
12.5°	1445.2	1441.6	1438.0	1431.8	1417.8	1409.5	1401.3	1380.6	1362.5	1334.6	1261.1
15°	1449.9	1447.8	1451.9	1449.3	1441.6	1434.3	1426.1	1407.5	1390.9	1367.6	1288.5
17.5°	1469.5	1469.5	1482.4	1484.0	1476.7	1466.4	1454.5	1435.9	1421.9	1402.3	1321.1
20°	1515.5	1514.0	1530.5	1533.6	1516.0	1500.0	1482.4	1459.7	1448.8	1436.4	1353.2
22.5°	1594.6	1587.4	1597.2	1594.1	1559.5	1534.7	1512.9	1485.0	1479.3	1473.6	1388.8
25°	1697.5	1693.4	1700.1	1669.6	1608.6	1575.0	1549.1	1517.6	1517.6	1523.3	1429.2
27.5°	1847.0	1831.5	1808.7	1754.9	1663.4	1620.5	1592.6	1559.0	1567.8	1589.0	1482.4
30°	2000.0	1983.0	1930.7	1848.0	1730.1	1685.1	1652.6	1617.4	1638.1	1676.9	1553.8
32.5°	2151.0	2131.9	2057.9	1953.5	1825.8	1780.8	1749.2	1710.5	1745.1	1810.3	1658.2
35°	2297.3	2280.3	2195.0	2071.9	1953.0	1915.7	1886.8	1853.2	1897.6	1988.6	1805.6
37.5°	2461.8	2443.2	2339.2	2205.8	2107.6	2080.7	2059.5	2025.9	2103.4	2236.8	2010.9
40°	2663.9	2632.4	2492.3	2359.4	2286.5	2273.6	2259.1	2254.4	2374.9	2559.5	2284.4
42.5°	2895.6	2843.9	2652.6	2521.2	2483.0	2492.3	2488.7	2509.3	2714.6	2960.7	2617.4
45°	3127.2	3060.5	2831.0	2693.9	2699.1	2731.7	2751.8	2834.6	3140.2	3420.9	2975.7
47.5°	3323.7	3258.1	3002.1	2880.6	2942.6	3006.8	3061.6	3218.2	3577.6	3873.9	3254.4
50°	3491.8	3429.7	3183.6	3085.9	3225.5	3328.9	3417.8	3650.0	4048.1	4218.8	3449.9
52.5°	3629.3	3587.9	3371.8	3321.1	3548.6	3700.1	3830.4	4108.6	4464.9	4499.0	3601.9
55°	3763.2	3733.8	3574.0	3600.9	3928.2	4134.5	4299.4	4595.2	4823.7	4732.7	3747.7
57.5°	3917.3	3890.4	3804.6	3955.6	4427.1	4686.7	4866.7	5026.4	5139.7	4971.6	3885.3
60°	4074.5	4059.0	4061.1	4349.6	5000.1	5249.3	5348.6	5389.9	5449.9	5196.5	3893.0
62.5°	4224.5	4253.9	4354.2	4788.1	5548.7	5740.0	5790.1	5831.0	5760.7	5232.2	3596.7
65°	4478.3	4526.4	4765.8	5374.9	6152.1	6356.8	6408.6	6268.4	5809.8	4771.0	2925.6
67.5°	4602.4	4690.3	5117.4	5922.0	6737.4	6964.9	6945.8	6296.9	5213.6	3638.1	1877.5
69°	4576.6	4670.2	5198.6	6089.5	6931.8	7138.1	7016.6	5948.9	4441.6	2635.5	1152.5
70°	4474.2	4568.8	5156.7	6083.3	6956.6	7120.0	6885.3	5519.2	3755.5	1927.1	720.8
72.5°	3736.3	3818.0	4578.1	5498.5	6408.6	6275.7	5760.2	3823.7	1829.9	524.8	162.4
75°	2299.9	2345.4	3284.9	4142.2	4840.3	4499.0	3837.7	1902.3	545.5	148.4	90.0
77.5°	1215.1	1235.8	1798.4	2441.6	3068.3	2538.8	1966.9	742.0	251.3	93.1	65.2
80°	718.2	733.7	968.5	1116.4	1327.8	1109.1	786.5	455.5	179.9	58.4	57.9
82.5°	411.1	420.9	702.2	620.5	523.3	446.7	391.4	431.8	108.1	39.3	60.0
85°	151.0	153.1	395.0	472.1	311.3	185.1	194.4	357.8	29.0	24.8	47.1
87.5°	70.3	68.8	203.2	289.0	182.0	117.4	151.5	78.6	11.4	16.0	12.9
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°	1297.8	1297.8	1297.8	1297.8	1297.8	1297.8	1297.8	1297.8	1297.8	1297.8	1297.8
2.5°	1282.3	1263.2	1228.6	1192.9	1156.7	1128.8	1101.4	1079.6	1072.4	1059.0	1060.0
5°	1243.0	1207.9	1135.5	1062.1	985.5	922.5	863.0	814.9	791.6	767.8	767.8
7.5°	1208.9	1157.7	1044.5	925.0	801.5	697.5	603.9	533.6	494.8	463.8	463.3
10°	1196.0	1126.7	968.5	797.3	625.1	483.5	372.3	300.9	264.2	240.4	239.4
12.5°	1201.7	1115.8	910.0	679.4	463.3	310.8	215.6	169.6	154.1	146.8	146.8
15°	1218.2	1112.7	851.6	564.1	327.3	194.4	143.2	130.8	129.8	129.8	129.8
17.5°	1238.4	1113.8	791.6	451.9	222.9	139.1	123.6	122.0	123.1	123.1	123.1
20°	1259.1	1114.3	727.0	348.0	157.2	121.0	116.3	115.8	116.9	116.9	117.4
22.5°	1284.4	1116.9	662.4	260.1	129.8	114.3	110.7	110.7	111.2	111.2	110.7
25°	1313.4	1122.0	595.1	192.9	118.4	109.6	106.5	106.0	106.5	106.0	105.5
27.5°	1349.6	1129.3	520.2	151.0	113.2	105.0	102.4	102.4	101.9	101.3	100.8
30°	1395.1	1137.6	435.9	128.2	108.1	100.8	98.2	97.7	97.2	96.2	96.2
32.5°	1464.3	1155.6	352.6	116.3	102.4	95.1	93.1	93.1	92.0	91.0	90.5
35°	1570.9	1191.3	278.2	109.1	96.2	88.9	86.4	86.4	85.3	84.8	84.3
37.5°	1718.2	1245.6	216.1	102.4	90.0	82.2	79.6	79.1	78.1	77.0	76.5
40°	1914.2	1312.8	170.1	96.2	83.8	75.5	73.4	72.4	70.3	68.8	68.8
42.5°	2160.3	1389.4	138.1	89.5	76.5	69.3	67.7	66.2	62.6	61.0	60.5
45°	2417.8	1458.1	116.9	81.7	69.3	63.1	62.0	59.5	54.8	53.3	53.3
47.5°	2603.4	1474.2	102.9	74.5	62.6	56.4	55.8	51.2	47.1	46.0	45.5
50°	2719.3	1442.6	91.5	67.2	56.4	50.2	48.6	42.9	40.3	39.3	38.8
52.5°	2797.3	1386.3	82.2	61.0	50.7	44.5	40.8	36.7	34.6	33.6	33.6
55°	2859.9	1306.6	72.9	55.3	46.0	39.8	34.6	31.5	29.5	28.4	28.4
57.5°	2877.5	1198.6	63.6	50.7	41.4	35.2	29.5	27.4	24.8	24.3	24.3
60°	2749.8	1003.6	56.4	45.0	37.2	30.5	25.9	23.3	20.7	20.2	19.6
62.5°	2413.2	776.6	49.6	39.8	32.6	26.4	22.2	19.1	17.1	17.1	17.1
65°	1840.8	520.7	43.4	34.6	28.4	22.2	19.1	15.5	14.5	14.5	15.0
67.5°	1101.9	283.4	37.2	29.5	24.3	18.6	16.0	13.4	12.9	13.4	13.4
69°	645.8	166.5	33.6	26.4	21.2	16.5	14.0	11.9	12.9	13.4	13.4
70°	398.7	112.2	31.0	23.8	19.1	15.0	12.9	11.4	12.4	12.9	12.9
72.5°	111.2	57.9	24.8	18.6	15.5	12.4	10.3	10.3	11.9	12.4	12.4
75°	72.4	42.9	19.1	14.0	11.9	9.8	8.8	9.8	11.4	11.9	11.9
77.5°	60.0	35.2	15.5	11.4	9.8	9.3	8.3	8.8	10.3	10.9	10.9
80°	54.8	24.8	12.4	10.3	8.8	8.3	7.8	7.2	9.3	9.8	9.8
82.5°	52.2	19.6	10.9	9.3	8.3	7.2	6.7	7.2	8.3	8.8	9.3
85°	32.6	12.9	9.8	8.8	7.2	6.7	6.7	6.7	7.8	8.3	8.3
87.5°	11.9	10.3	8.8	7.2	6.2	6.2	6.2	6.2	6.7	7.8	7.8
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)