

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: P301933

Luminaire Tested: **GLNA-AF-03-LED-E1-SL4-7030-600-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301933  
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-SL4-7030-600-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(3) 70 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: 8539 lumens  
Efficiency: N/A  
Efficacy: 88.9 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): 96  
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

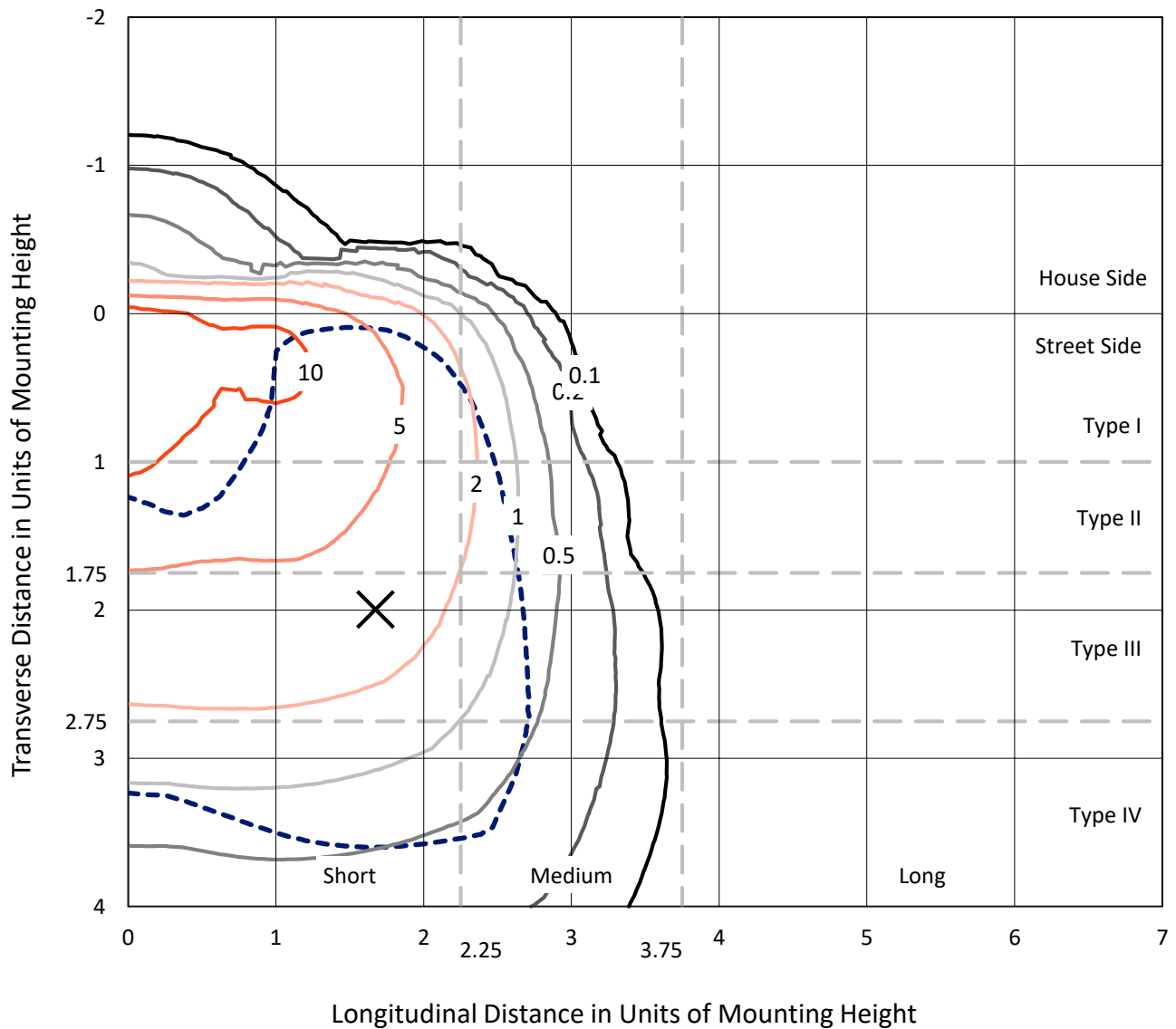


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

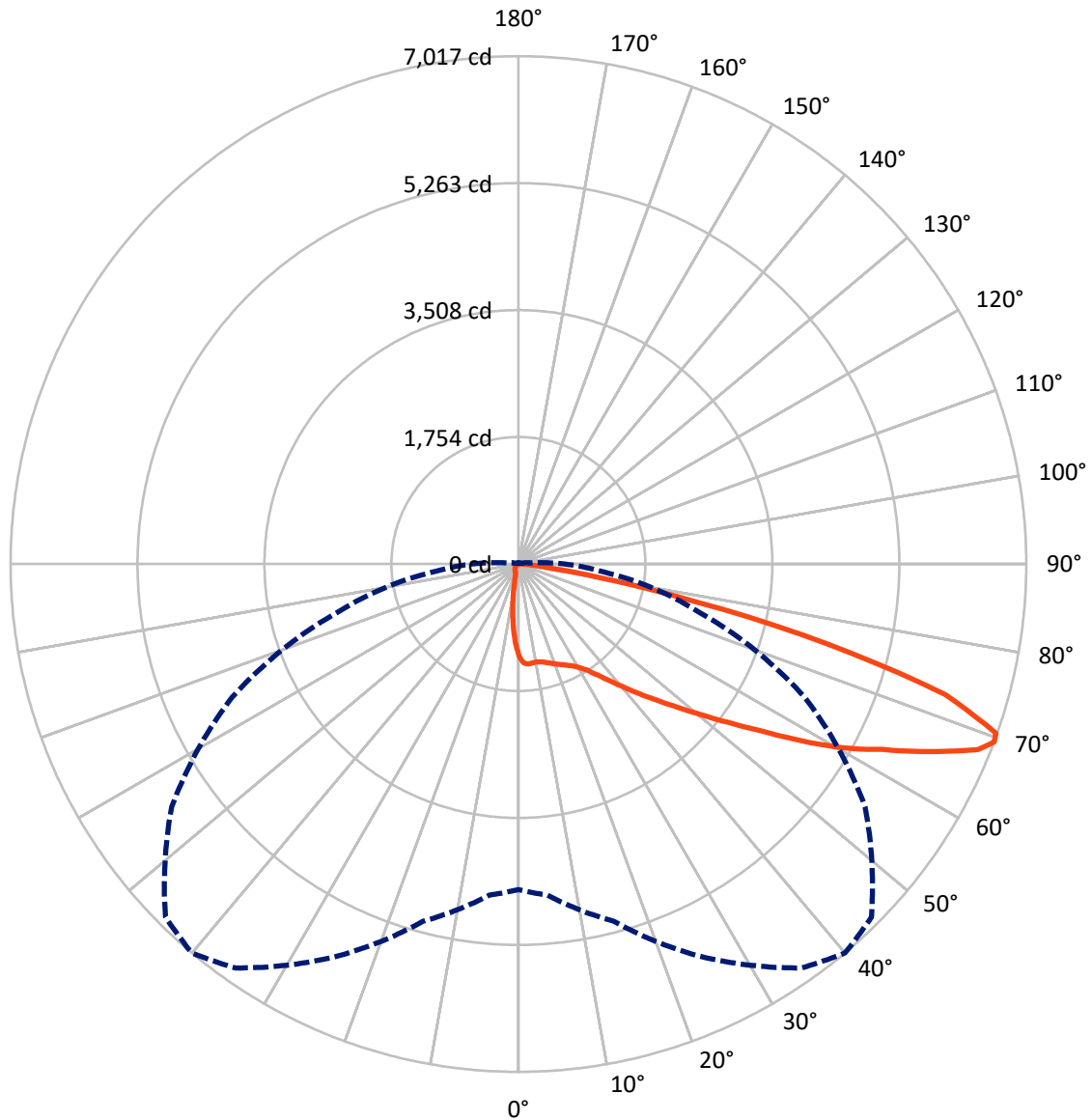


Based on 10 foot mounting height. Maximum calculated value = 14 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



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

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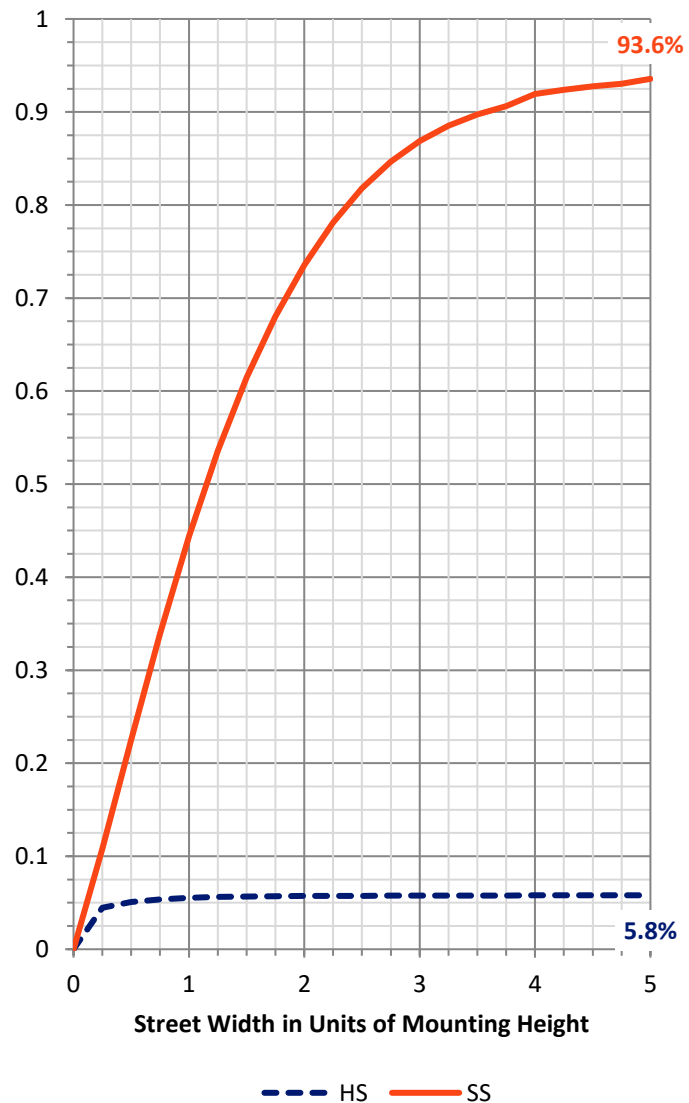
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	499.6	0.0	499.6
	% Fixture	5.9	0.0	5.9
<b>Street Side</b>	Lumens	8039.4	0.0	8039.4
	% Fixture	94.1	0.0	94.1
<b>Total</b>	Lumens	8539.0	0.0	8539.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	103.4	1.2
10°-20°	254.4	3.0
20°-30°	428.5	5.0
30°-40°	701.4	8.2
40°-50°	1214.5	14.2
50°-60°	1912.9	22.4
60°-70°	2498.2	29.3
70°-80°	1286.7	15.1
80°-90°	139.2	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°	8539.0	100.0
0°-180°	8539.0	100.0



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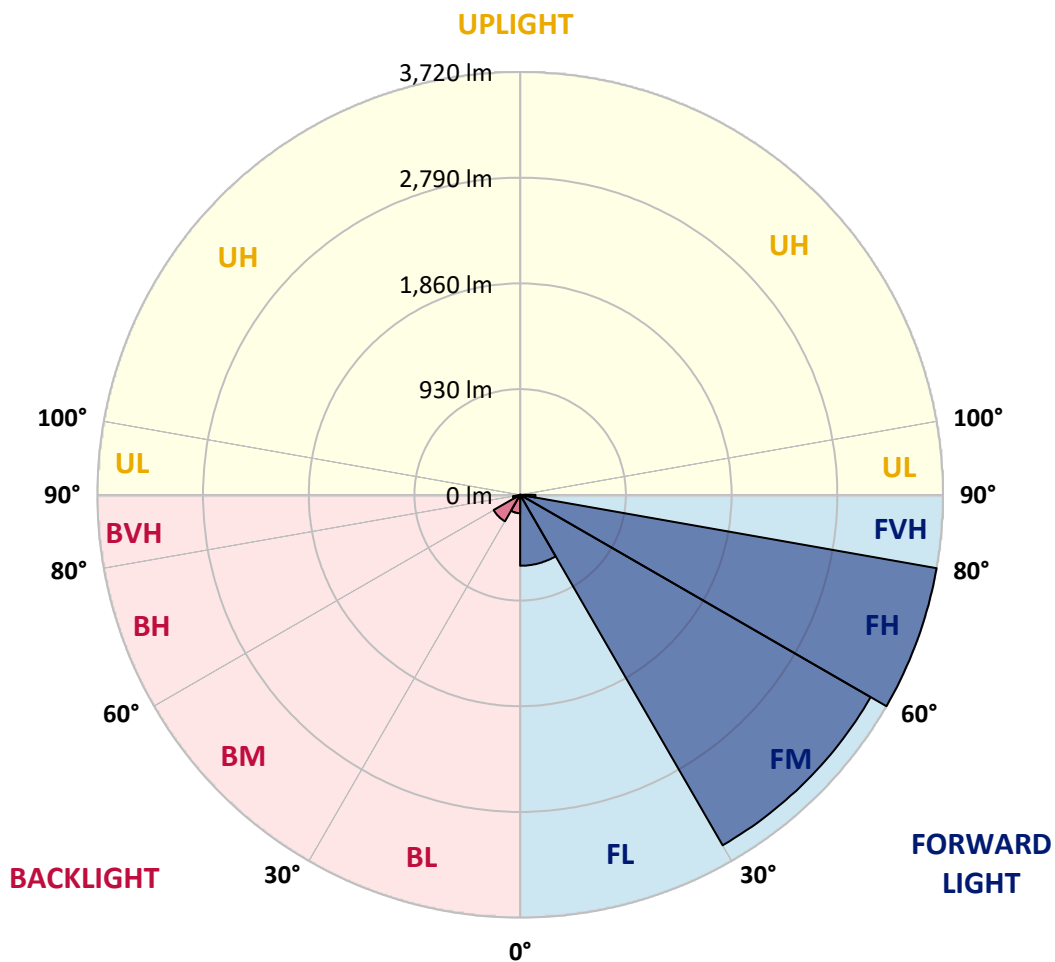
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	624.4	7.3			
FM	(30°-60°)	3560.2	41.7			
FH	(60°-80°)	3719.9	43.6			G2/5000
FVH	(80°-90°)	134.8	1.6			G2/225
BL	(0°-30°)	161.8	1.9	B1/500		
BM	(30°-60°)	268.5	3.1	B1/1000		
BH	(60°-80°)	64.9	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°	1275.8	1275.8	1275.8	1275.8	1275.8	1275.8	1275.8	1275.8	1275.8	1275.8	1275.8
2.5°	1400.8	1393.2	1388.6	1382.5	1374.9	1368.3	1365.7	1346.9	1329.1	1304.7	1276.8
5°	1426.7	1424.2	1416.1	1407.9	1398.8	1388.6	1383.0	1360.7	1335.2	1299.7	1250.9
7.5°	1429.3	1426.2	1416.1	1404.9	1392.2	1380.0	1370.3	1347.9	1324.6	1288.5	1229.0
10°	1425.2	1421.6	1414.0	1401.8	1386.1	1374.4	1364.7	1343.4	1323.5	1291.0	1224.9
12.5°	1420.6	1417.1	1413.5	1407.4	1393.7	1385.6	1377.4	1357.1	1339.3	1311.9	1239.7
15°	1425.2	1423.2	1427.2	1424.7	1417.1	1410.0	1401.8	1383.5	1367.3	1344.4	1266.6
17.5°	1444.5	1444.5	1457.2	1458.7	1451.6	1441.5	1429.8	1411.5	1397.8	1378.4	1298.6
20°	1489.8	1488.2	1504.5	1507.5	1490.3	1474.5	1457.2	1434.9	1424.2	1412.0	1330.2
22.5°	1567.5	1560.4	1570.1	1567.0	1533.0	1508.6	1487.2	1459.8	1454.2	1448.6	1365.2
25°	1668.7	1664.6	1671.2	1641.2	1581.2	1548.2	1522.8	1491.8	1491.8	1497.4	1404.9
27.5°	1815.6	1800.3	1777.9	1725.1	1635.1	1592.9	1565.5	1532.4	1541.1	1561.9	1457.2
30°	1966.0	1949.2	1897.9	1816.6	1700.7	1656.5	1624.4	1589.9	1610.2	1648.3	1527.4
32.5°	2114.4	2095.6	2022.9	1920.3	1794.7	1750.5	1719.5	1681.4	1715.4	1779.5	1630.0
35°	2258.3	2241.5	2157.6	2036.7	1919.8	1883.2	1854.7	1821.7	1865.4	1954.8	1774.9
37.5°	2419.9	2401.6	2299.4	2168.3	2071.7	2045.3	2024.5	1991.4	2067.7	2198.8	1976.7
40°	2618.6	2587.6	2449.9	2319.3	2247.6	2234.9	2220.7	2216.1	2334.5	2516.0	2245.6
42.5°	2846.3	2795.5	2607.4	2478.3	2440.7	2449.9	2446.3	2466.7	2668.4	2910.4	2572.9
45°	3074.0	3008.5	2782.8	2648.1	2653.2	2685.2	2705.0	2786.4	3086.8	3362.7	2925.1
47.5°	3267.2	3202.6	2951.0	2831.6	2892.6	2955.6	3009.5	3163.5	3516.8	3808.0	3199.1
50°	3432.4	3371.4	3129.4	3033.4	3170.6	3272.3	3359.7	3587.9	3979.3	4147.0	3391.2
52.5°	3567.6	3526.9	3314.5	3264.6	3488.3	3637.2	3765.3	4038.8	4389.0	4422.5	3540.6
55°	3699.2	3670.3	3513.2	3539.6	3861.4	4064.2	4226.3	4517.0	4741.7	4652.2	3684.0
57.5°	3850.7	3824.3	3739.9	3888.3	4351.8	4607.0	4783.9	4940.9	5052.3	4887.1	3819.2
60°	4005.2	3990.0	3992.0	4275.6	4915.0	5160.0	5257.6	5298.3	5357.2	5108.2	3826.8
62.5°	4152.6	4181.6	4280.2	4706.6	5454.3	5642.4	5691.7	5731.8	5662.7	5143.2	3535.6
65°	4402.2	4449.4	4684.8	5283.5	6047.5	6248.7	6299.6	6161.8	5711.0	4689.9	2875.8
67.5°	4524.2	4610.6	5030.4	5821.3	6622.8	6846.5	6827.7	6189.8	5124.9	3576.2	1845.5
69°	4498.7	4590.7	5110.2	5986.0	6813.9	7016.7	6897.3	5847.7	4366.1	2590.7	1132.9
70°	4398.1	4491.1	5069.0	5979.9	6838.3	6998.9	6768.2	5425.3	3691.6	1894.3	708.5
72.5°	3672.8	3753.1	4500.3	5405.0	6299.6	6168.9	5662.2	3758.7	1798.8	515.9	159.6
75°	2260.8	2305.5	3229.1	4071.8	4758.0	4422.5	3772.4	1869.9	536.2	145.9	88.4
77.5°	1194.4	1214.8	1767.8	2400.1	3016.1	2495.6	1933.5	729.4	247.0	91.5	64.0
80°	706.0	721.2	952.0	1097.4	1305.2	1090.2	773.1	447.8	176.9	57.4	56.9
82.5°	404.1	413.7	690.2	609.9	514.4	439.1	384.8	424.4	106.2	38.6	59.0
85°	148.4	150.4	388.3	464.1	306.0	182.0	191.1	351.7	28.5	24.4	46.3
87.5°	69.1	67.6	199.8	284.1	178.9	115.4	148.9	77.3	11.2	15.8	12.7
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1275.8	1275.8	1275.8	1275.8	1275.8	1275.8	1275.8	1275.8	1275.8	1275.8	1275.8
2.5°	1260.5	1241.7	1207.7	1172.6	1137.0	1109.6	1082.6	1061.3	1054.2	1040.9	1042.0
5°	1221.9	1187.3	1116.2	1044.0	968.8	906.8	848.3	801.0	778.2	754.8	754.8
7.5°	1188.3	1138.0	1026.7	909.3	787.8	685.7	593.7	524.5	486.4	455.9	455.4
10°	1175.6	1107.5	952.0	783.8	614.5	475.2	366.0	295.8	259.7	236.3	235.3
12.5°	1181.2	1096.9	894.6	667.9	455.4	305.5	212.0	166.7	151.5	144.4	144.4
15°	1197.5	1093.8	837.1	554.5	321.7	191.1	140.8	128.6	127.6	127.6	127.6
17.5°	1217.3	1094.8	778.2	444.2	219.1	136.7	121.5	120.0	121.0	121.0	121.0
20°	1237.6	1095.3	714.6	342.1	154.5	118.9	114.4	113.9	114.9	114.9	115.4
22.5°	1262.6	1097.9	651.1	255.7	127.6	112.3	108.8	108.8	109.3	109.3	108.8
25°	1291.0	1103.0	585.0	189.6	116.4	107.8	104.7	104.2	104.7	104.2	103.7
27.5°	1326.6	1110.1	511.3	148.4	111.3	103.2	100.6	100.6	100.1	99.6	99.1
30°	1371.3	1118.2	428.5	126.1	106.2	99.1	96.6	96.1	95.6	94.5	94.5
32.5°	1439.4	1136.0	346.6	114.4	100.6	93.5	91.5	91.5	90.5	89.5	88.9
35°	1544.1	1171.1	273.5	107.2	94.5	87.4	84.9	84.9	83.9	83.4	82.8
37.5°	1689.0	1224.4	212.5	100.6	88.4	80.8	78.3	77.8	76.7	75.7	75.2
40°	1881.6	1290.5	167.2	94.5	82.3	74.2	72.2	71.2	69.1	67.6	67.6
42.5°	2123.6	1365.7	135.7	87.9	75.2	68.1	66.6	65.1	61.5	60.0	59.5
45°	2376.7	1433.3	114.9	80.3	68.1	62.0	61.0	58.5	53.9	52.4	52.4
47.5°	2559.2	1449.1	101.1	73.2	61.5	55.4	54.9	50.3	46.3	45.2	44.7
50°	2673.0	1418.1	90.0	66.1	55.4	49.3	47.8	42.2	39.6	38.6	38.1
52.5°	2749.8	1362.7	80.8	60.0	49.8	43.7	40.2	36.1	34.1	33.0	33.0
55°	2811.3	1284.4	71.7	54.4	45.2	39.1	34.1	31.0	29.0	28.0	28.0
57.5°	2828.5	1178.2	62.5	49.8	40.7	34.6	29.0	26.9	24.4	23.9	23.9
60°	2703.0	986.6	55.4	44.2	36.6	30.0	25.4	22.9	20.3	19.8	19.3
62.5°	2372.1	763.4	48.8	39.1	32.0	25.9	21.9	18.8	16.8	16.8	16.8
65°	1809.5	511.8	42.7	34.1	28.0	21.9	18.8	15.2	14.2	14.2	14.7
67.5°	1083.1	278.5	36.6	29.0	23.9	18.3	15.8	13.2	12.7	13.2	13.2
69°	634.8	163.7	33.0	25.9	20.8	16.3	13.7	11.7	12.7	13.2	13.2
70°	391.9	110.3	30.5	23.4	18.8	14.7	12.7	11.2	12.2	12.7	12.7
72.5°	109.3	56.9	24.4	18.3	15.2	12.2	10.2	10.2	11.7	12.2	12.2
75°	71.2	42.2	18.8	13.7	11.7	9.7	8.6	9.7	11.2	11.7	11.7
77.5°	59.0	34.6	15.2	11.2	9.7	9.1	8.1	8.6	10.2	10.7	10.7
80°	53.9	24.4	12.2	10.2	8.6	8.1	7.6	7.1	9.1	9.7	9.7
82.5°	51.3	19.3	10.7	9.1	8.1	7.1	6.6	7.1	8.1	8.6	9.1
85°	32.0	12.7	9.7	8.6	7.1	6.6	6.6	6.6	7.6	8.1	8.1
87.5°	11.7	10.2	8.6	7.1	6.1	6.1	6.1	6.1	6.6	7.6	7.6
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)