

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: P300409

Luminaire Tested: **GLNA-AF-10-LED-E1-AFL-7027-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300409  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24165)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-10-LED-E1-AFL-7027-800  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

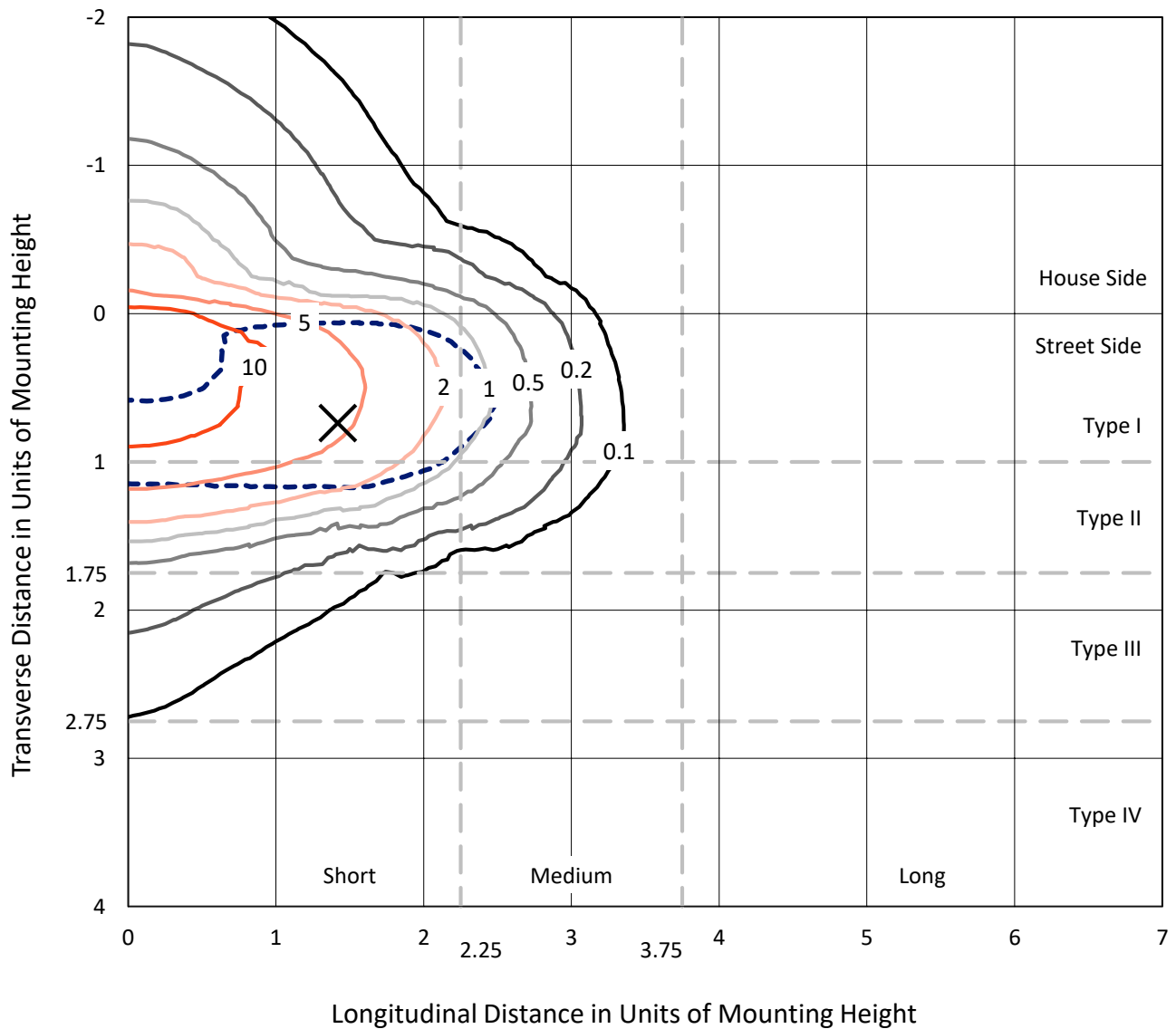
Lumens per Lamp: N/A  
Luminaire Lumens: 42281.9 lumens  
Efficiency: N/A  
Efficacy: 100.9 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B3 - U0 - G3  
  
Input Watts (W): 419  
Input Voltage (V): NR  
Input Current (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

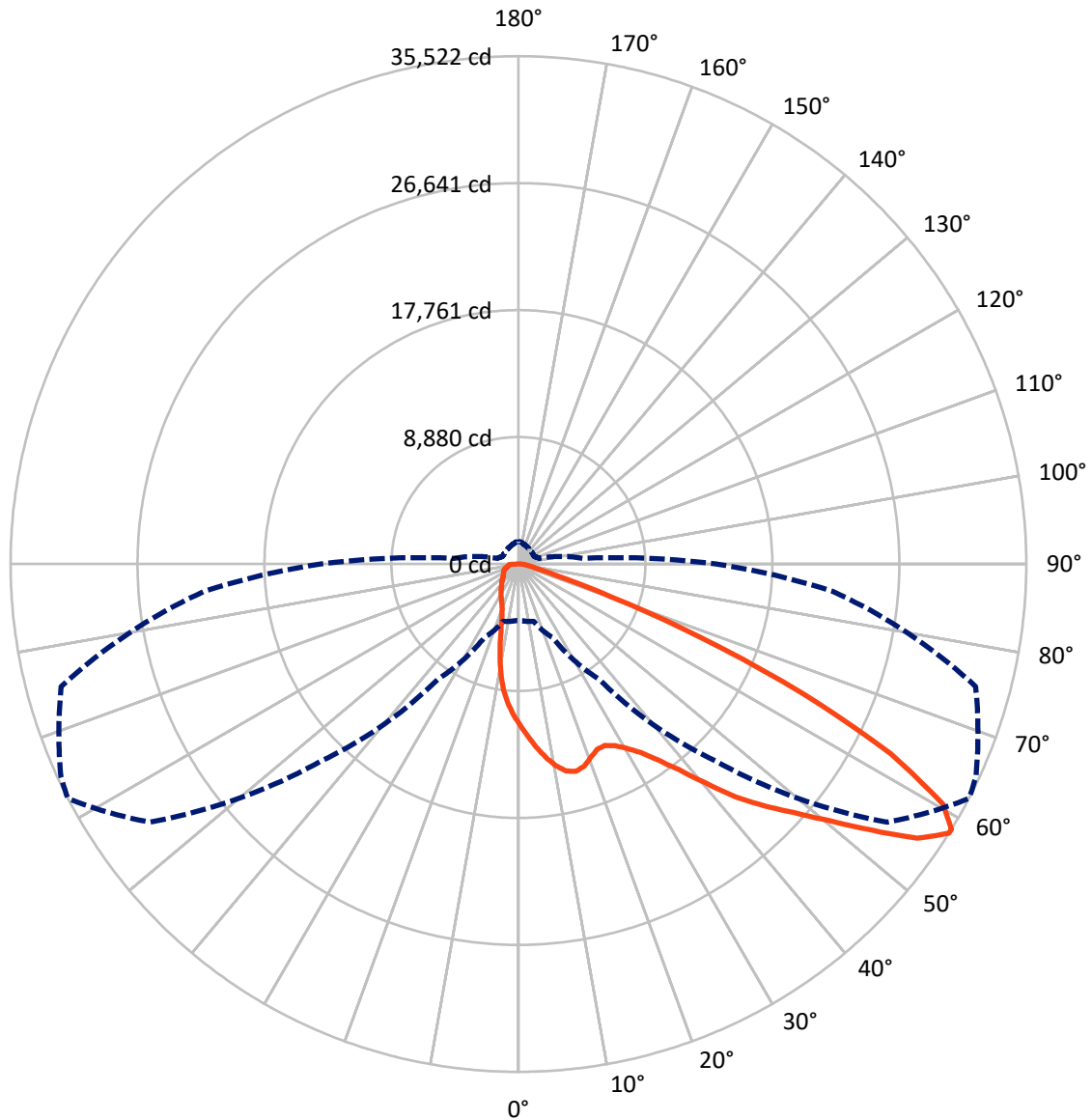
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 15.2 fc  
 Type II - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 62.5-Deg Lateral    - - - Horizontal Cone Through 58-Deg Vertical

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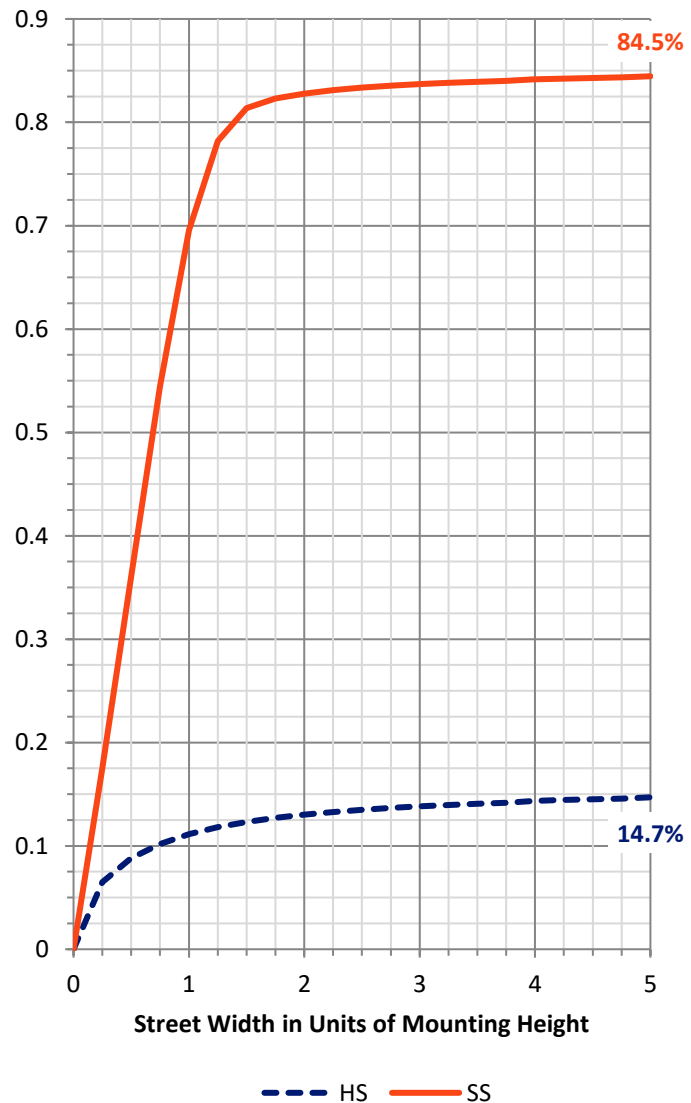
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6448.1	0.0	6448.1
	% Fixture	15.3	0.0	15.3
<b>Street Side</b>	Lumens	35833.7	0.0	35833.7
	% Fixture	84.7	0.0	84.7
<b>Total</b>	Lumens	42281.9	0.0	42281.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1004.5	2.4
10°-20°	2567.6	6.1
20°-30°	4150.6	9.8
30°-40°	6589.1	15.6
40°-50°	9641.2	22.8
50°-60°	10083.8	23.8
60°-70°	5957.5	14.1
70°-80°	1678.3	4.0
80°-90°	609.3	1.4
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°	42281.9	100.0
0°-180°	42281.9	100.0



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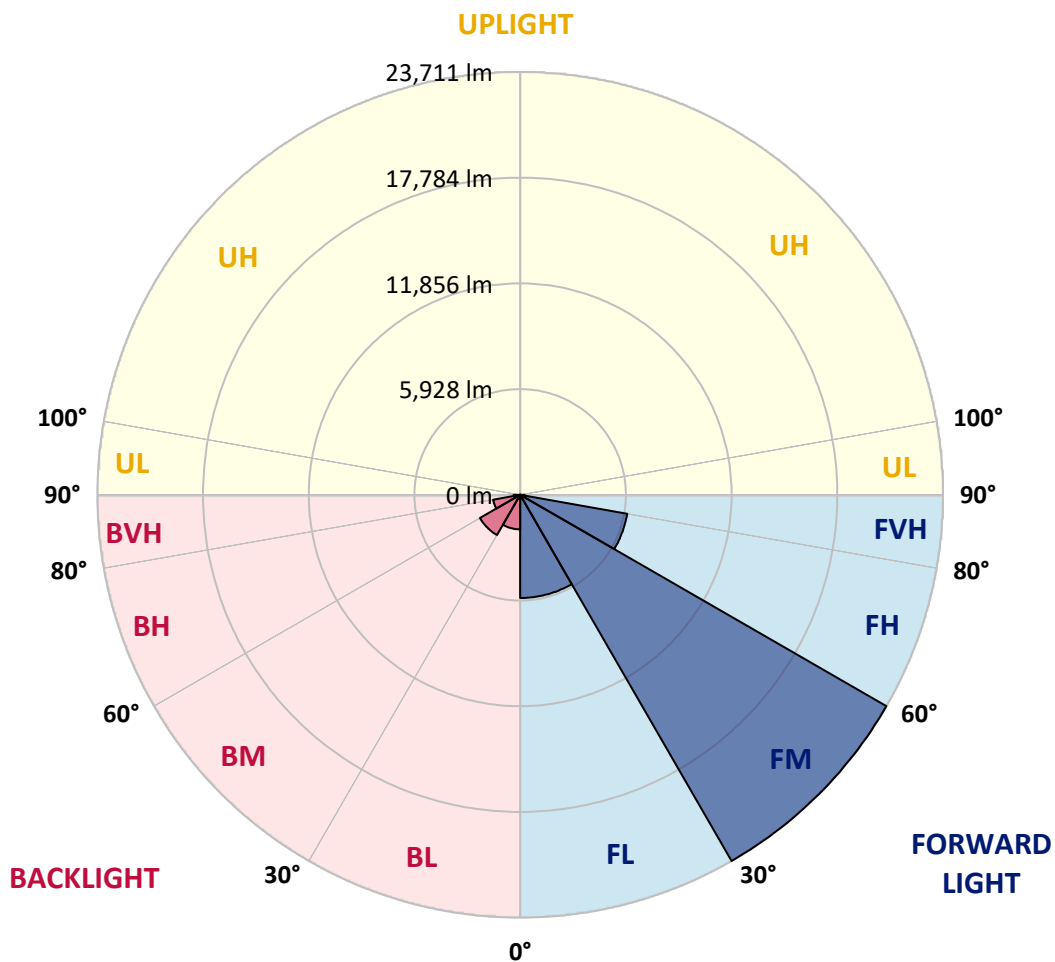
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	5784.7	13.7			
FM	(30°-60°)	23711.4	56.1			
FH	(60°-80°)	6097.2	14.4			G3/7500
FVH	(80°-90°)	240.4	0.6			G3/500
BL	(0°-30°)	1938.0	4.6	B3/2500		
BM	(30°-60°)	2602.6	6.2	B3/5000		
BH	(60°-80°)	1538.6	3.6	B3/2500		G3/2500
BVH	(80°-90°)	368.9	0.9			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	62.5°	65°	75°	85°
0°	11231.3	11231.3	11231.3	11231.3	11231.3	11231.3	11231.3	11231.3	11231.3	11231.3	11231.3
2.5°	12834.1	12730.6	12664.9	12607.1	12531.5	12370.2	12153.2	12015.8	11946.1	11709.2	11428.4
5°	14092.4	14000.8	13933.1	13855.5	13720.1	13467.2	13116.8	12838.1	12700.7	12226.8	11665.4
7.5°	13797.7	13835.6	13953.0	14158.1	14333.3	14299.5	13986.9	13632.5	13451.3	12792.3	11940.1
10°	12021.8	12087.5	12290.5	12770.4	13546.9	14343.3	14586.2	14341.3	14158.1	13351.8	12222.8
12.5°	11665.4	11663.4	11679.3	11806.7	12268.6	13389.6	14606.1	14853.0	14743.5	13885.3	12511.5
15°	11810.7	11814.7	11802.7	11856.5	11999.9	12443.9	13996.8	15050.1	15127.7	14422.9	12810.2
17.5°	12193.0	12183.0	12137.2	12137.2	12189.0	12362.2	13280.1	14866.9	15225.3	14898.8	13073.0
20°	12834.1	12788.3	12666.8	12555.3	12499.6	12593.2	12985.4	14444.8	15056.1	15314.9	13290.0
22.5°	13610.6	13574.7	13377.6	13138.7	12945.6	12943.6	13136.7	14076.5	14763.4	15707.1	13473.2
25°	14614.1	14556.3	14263.6	13881.4	13542.9	13413.5	13467.2	14058.6	14604.1	16133.2	13636.5
27.5°	15792.7	15687.2	15340.8	14789.3	14291.5	14030.7	13953.0	14383.1	14749.4	16660.8	13863.4
30°	17222.3	17100.8	16656.8	15938.1	15235.3	14807.2	14641.9	14958.5	15231.3	17303.9	14227.8
32.5°	18848.9	18673.7	18160.1	17367.6	16443.8	15790.7	15522.0	15719.1	15936.1	18078.4	14683.7
35°	21096.8	20887.8	20145.1	19052.0	18008.7	17110.8	16680.7	16824.1	17035.1	19233.2	15342.8
37.5°	22629.9	22536.3	22042.5	21015.2	19880.3	18847.0	18182.0	18265.6	18385.0	20676.7	16187.0
40°	22616.0	22653.8	22663.7	22673.7	21901.2	20911.6	20196.9	20109.3	20085.4	22261.6	17146.6
42.5°	21483.1	21638.4	22140.1	23157.5	23627.4	23173.4	22518.4	22265.5	22140.1	24129.1	18164.0
45°	19748.9	19832.5	20772.3	22759.3	24511.4	25413.3	24917.6	24121.2	23894.2	25845.4	19008.2
47.5°	18854.9	18946.5	19537.8	21704.1	24501.4	27223.2	27509.9	25992.7	25586.5	27338.6	19736.9
50°	16726.5	16917.7	17662.3	19868.4	23607.5	28055.4	30219.6	28222.7	27382.4	28792.1	20467.6
52.5°	12818.2	13112.8	13947.1	16850.0	21339.7	27643.3	32387.9	30926.5	29739.8	30297.3	21094.8
55°	8085.5	8304.5	9005.4	11900.3	17071.0	25498.9	33210.1	33851.3	32796.0	31722.9	21638.4
57.5°	4396.2	4493.7	4756.5	6570.4	11103.9	20758.3	32011.6	35515.7	35077.7	32933.4	22048.5
58°	3934.2	4000.0	4163.2	5694.3	9847.6	19462.2	31480.0	35521.7	35302.7	33110.6	22080.4
60°	2918.8	2885.0	2739.6	3249.3	5481.3	13445.3	28266.5	34100.1	34743.2	33327.6	21925.1
62.5°	2564.4	2482.8	2186.1	2152.3	2666.0	6194.1	21628.4	29210.2	30729.3	32089.2	20981.3
65°	2409.1	2321.5	1939.2	1815.8	1923.3	2620.2	12740.5	21907.2	23812.6	28334.2	18568.2
67.5°	2293.7	2180.2	1782.0	1612.7	1620.7	1732.2	5107.0	13797.7	15942.1	21512.9	14442.8
70°	2182.2	2058.7	1648.6	1453.4	1407.6	1369.8	2030.8	6906.8	8852.1	13588.7	9208.4
72.5°	2062.7	1941.2	1531.1	1328.0	1238.4	1113.0	1326.0	2825.3	3946.2	6429.0	4177.2
75°	1889.5	1780.0	1413.6	1216.5	1089.1	921.8	1001.5	1475.3	1770.0	2560.4	2012.9
77.5°	1676.4	1586.8	1282.2	1124.9	965.6	748.6	770.5	1023.4	1134.9	1465.4	1196.6
80°	1204.6	1236.4	1140.9	1011.4	860.1	607.3	591.3	746.6	806.4	941.8	778.5
82.5°	846.2	864.1	943.7	826.3	710.8	477.8	436.0	525.6	561.5	619.2	420.1
85°	583.4	563.5	647.1	575.4	513.7	318.6	298.7	356.4	378.3	384.3	217.0
87.5°	350.4	350.4	374.3	308.6	276.8	165.3	161.3	203.1	217.0	207.1	119.5
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°	11231.3	11231.3	11231.3	11231.3	11231.3	11231.3	11231.3	11231.3	11231.3	11231.3	11231.3
2.5°	11261.2	11119.8	10819.2	10578.3	10273.6	9957.1	9779.9	9590.7	9461.3	9367.7	9517.1
5°	11346.8	11058.1	10436.9	9847.6	9196.5	8519.6	8005.9	7528.0	7195.5	6988.5	7183.6
7.5°	11482.2	11038.2	10048.7	9041.2	7872.5	6745.6	5738.1	5107.0	4738.6	4557.4	4670.9
10°	11637.5	11006.3	9592.7	7948.1	6275.7	4856.1	4103.5	3848.6	3765.0	3731.2	3747.1
12.5°	11766.9	10938.6	9033.2	6626.1	4712.7	3834.7	3617.7	3611.7	3629.6	3633.6	3639.6
15°	11858.5	10839.1	8203.0	5248.3	3769.0	3494.2	3482.3	3518.1	3552.0	3565.9	3573.9
17.5°	11920.2	10634.0	7265.2	4149.3	3376.8	3329.0	3356.9	3402.6	3438.5	3448.4	3456.4
20°	11914.2	10333.4	6148.3	3460.4	3163.7	3163.7	3211.5	3247.3	3249.3	3237.4	3243.4
22.5°	11852.5	9921.2	5065.1	3094.0	2974.6	3008.4	3056.2	3022.4	2883.0	2791.4	2797.4
25°	11749.0	9429.5	4137.3	2861.1	2799.4	2859.1	2845.2	2590.3	2391.2	2301.6	2301.6
27.5°	11657.4	8848.1	3424.5	2658.0	2624.2	2697.8	2450.9	2220.0	2136.4	2094.5	2080.6
30°	11591.7	8220.9	2948.7	2462.9	2458.9	2405.1	2126.4	2062.7	2048.8	2014.9	2003.0
32.5°	11607.6	7585.8	2644.1	2291.7	2305.6	2058.7	1971.1	1985.0	1973.1	1937.3	1921.3
35°	11739.0	6982.5	2445.0	2136.4	2094.5	1859.6	1879.5	1905.4	1901.4	1851.6	1835.7
37.5°	11974.0	6411.1	2313.6	2006.9	1827.8	1760.1	1791.9	1831.7	1821.8	1787.9	1776.0
40°	12220.9	5873.5	2206.0	1905.4	1670.5	1692.4	1720.2	1742.1	1752.1	1762.0	1754.1
42.5°	12461.8	5312.0	2074.6	1801.9	1604.8	1628.7	1640.6	1662.5	1716.3	1754.1	1752.1
45°	12605.1	4784.4	1939.2	1654.5	1553.0	1566.9	1559.0	1602.8	1668.5	1730.2	1732.2
47.5°	12764.4	4374.3	1831.7	1519.1	1503.2	1513.2	1489.3	1533.1	1592.8	1668.5	1676.4
50°	12957.5	4129.4	1746.1	1411.6	1435.5	1435.5	1429.5	1469.4	1553.0	1640.6	1656.5
52.5°	13176.5	4081.6	1674.4	1334.0	1367.8	1365.8	1371.8	1431.5	1523.1	1608.7	1622.7
55°	13443.3	4211.0	1596.8	1276.2	1302.1	1310.1	1330.0	1397.7	1475.3	1572.9	1578.9
57.5°	13753.9	4473.8	1535.1	1230.4	1242.4	1268.3	1300.1	1361.9	1445.5	1553.0	1559.0
58°	13805.7	4529.6	1525.1	1226.5	1230.4	1260.3	1296.2	1355.9	1439.5	1557.0	1562.9
60°	13807.7	4714.7	1503.2	1208.5	1184.7	1234.4	1274.3	1334.0	1429.5	1570.9	1584.8
62.5°	13317.9	4712.7	1487.3	1182.7	1136.9	1198.6	1244.4	1314.1	1419.6	1604.8	1632.6
65°	11727.1	4282.7	1411.6	1142.8	1099.0	1166.7	1218.5	1300.1	1447.5	1752.1	1770.0
67.5°	9172.6	3510.2	1270.3	1087.1	1049.3	1134.9	1202.6	1298.1	1477.3	1785.9	1797.9
70°	6064.6	2626.2	1115.0	1023.4	997.5	1097.0	1210.5	1365.8	1443.5	1714.3	1682.4
72.5°	3147.8	1843.7	989.5	943.7	937.8	1063.2	1326.0	1357.9	1409.6	1612.7	1572.9
75°	1652.5	1280.2	880.0	856.1	866.1	1055.2	1564.9	1322.0	1365.8	1543.0	1618.7
77.5°	1011.4	1033.3	786.5	776.5	796.4	1031.3	1562.9	1276.2	1302.1	1419.6	1503.2
80°	676.9	838.2	714.8	716.8	730.7	943.7	1403.7	1204.6	1224.5	1341.9	1427.6
82.5°	428.1	495.8	649.1	682.9	665.0	778.5	1192.6	1097.0	1124.9	1535.1	1622.7
85°	217.0	310.6	563.5	657.0	599.3	545.5	967.6	961.7	975.6	1107.0	1156.8
87.5°	99.6	171.2	440.0	573.4	452.0	340.5	702.8	712.8	768.5	786.5	786.5
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)