

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: P301242

Luminaire Tested: **GLNA-AF-08-LED-E1-T3R-7027-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301242  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194839)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-08-LED-E1-T3R-7027-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(8) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
Roadway OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 27819 lumens  
Efficiency: N/A  
Efficacy: 108.2 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type III - Short - Full Cutoff  
BUG Rating: B3 - U0 - G4

Input Watts (W): 257  
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

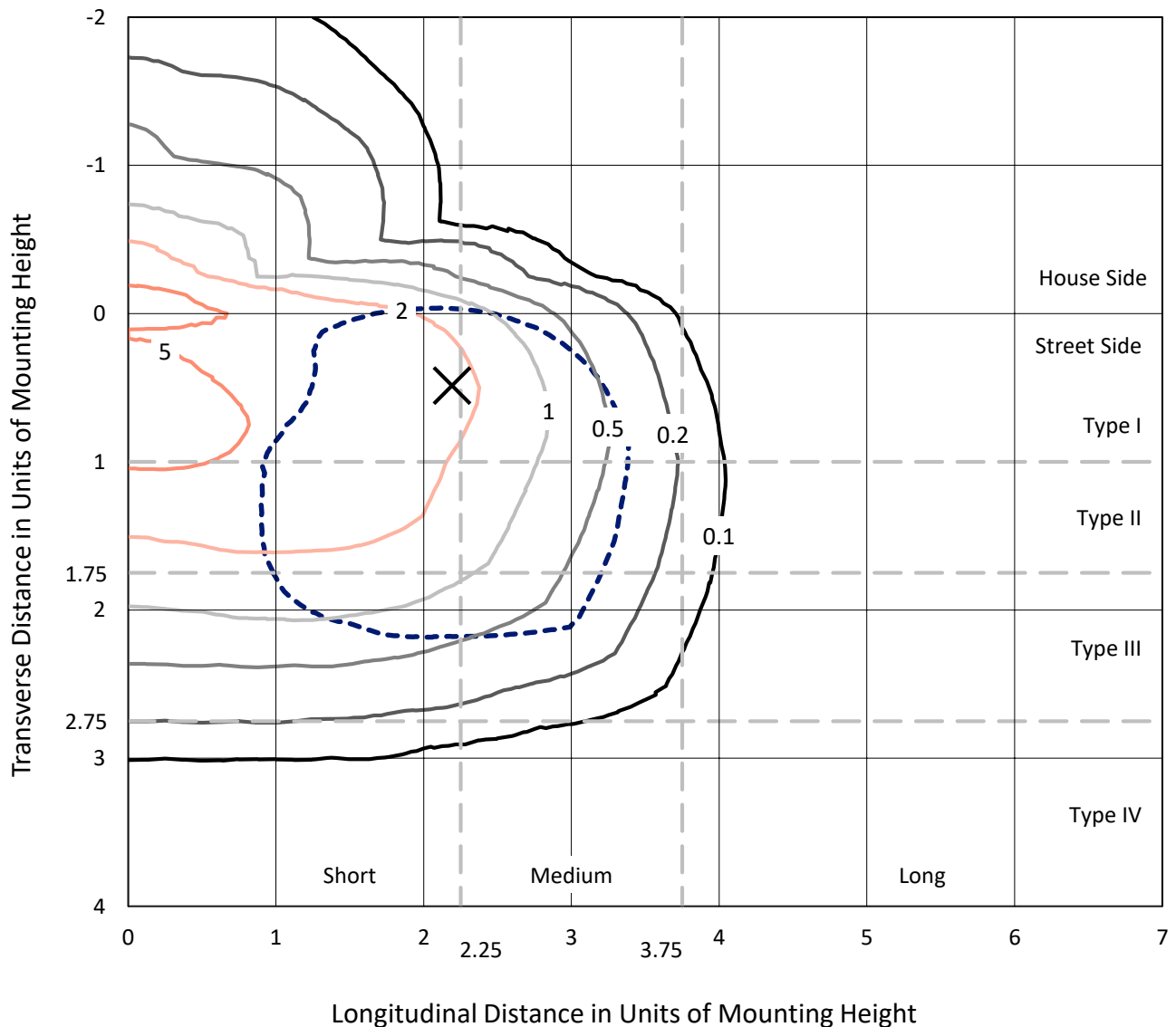


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

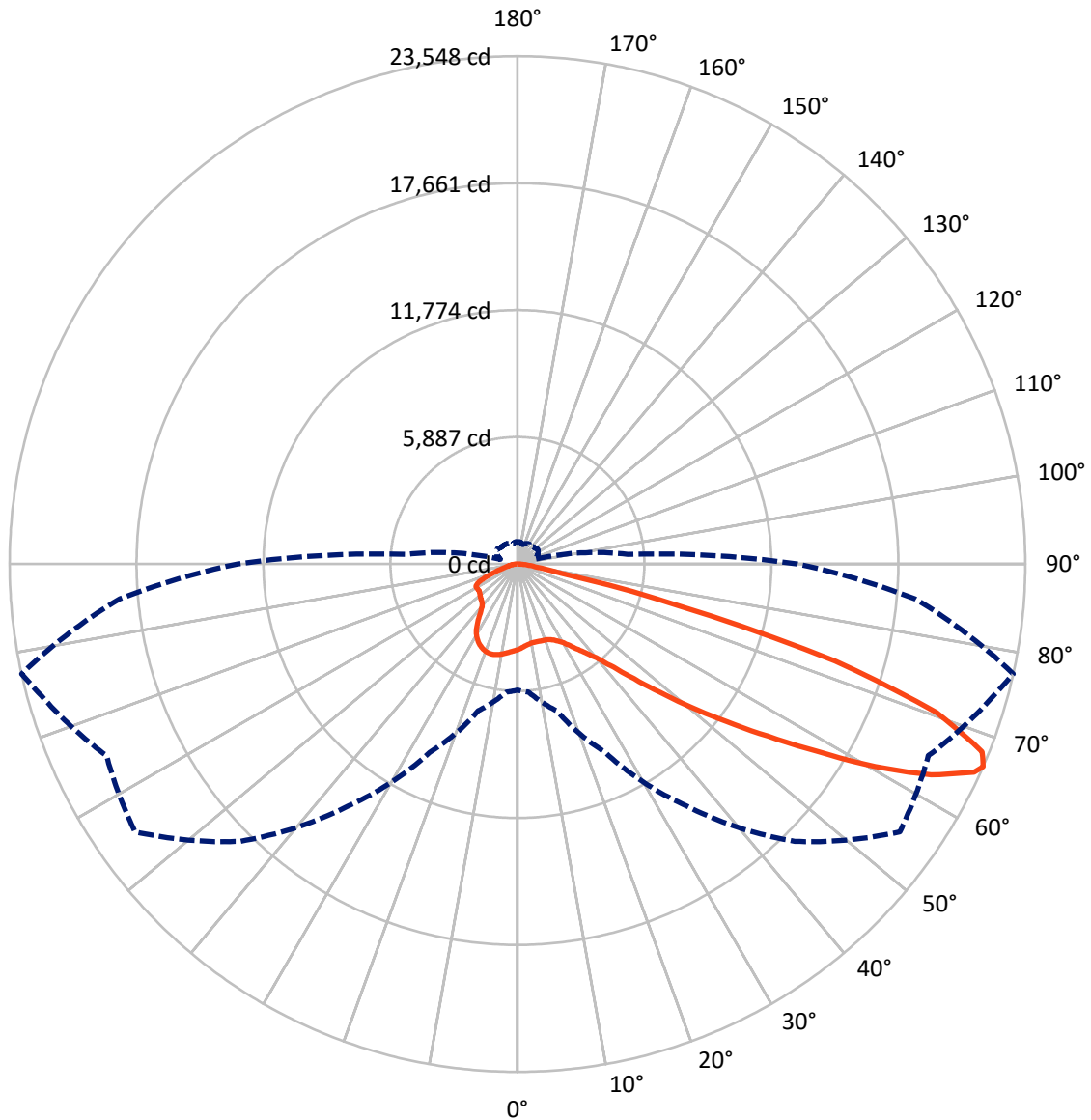


Based on 25 foot mounting height. Maximum calculated value = 7.8 fc  
 Type III - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral    - - - Horizontal Cone Through 66-Deg Vertical

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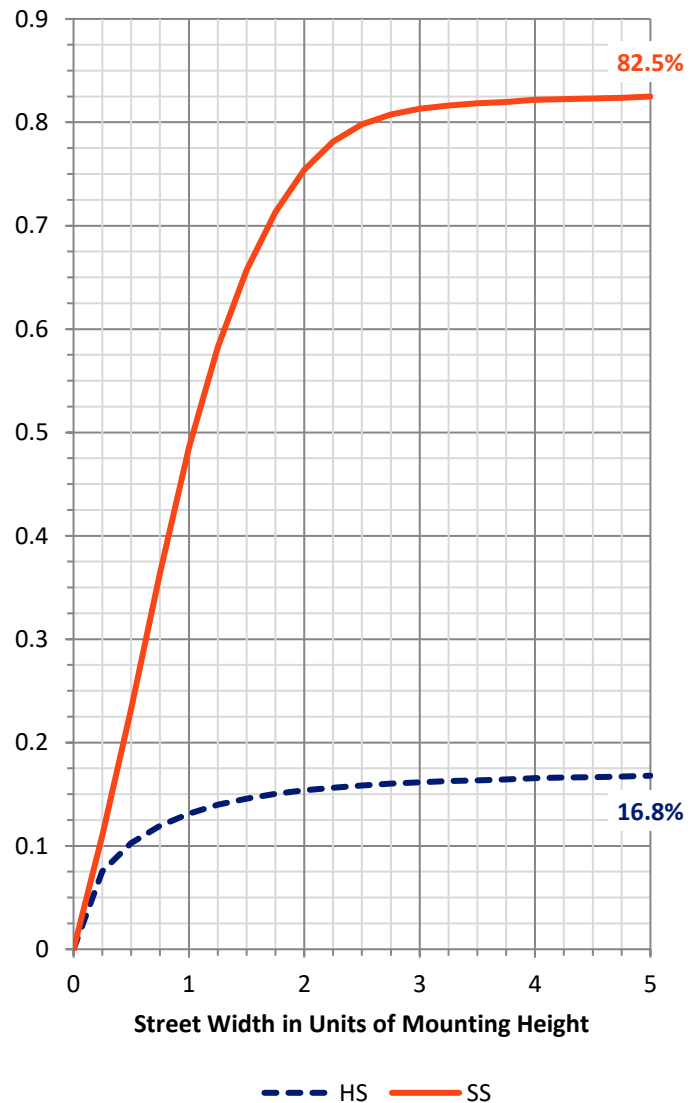
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4752.7	0.0	4752.7
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	23066.3	0.0	23066.3
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	27819.0	0.0	27819.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	354.2	1.3
10°-20°	999.2	3.6
20°-30°	1705.3	6.1
30°-40°	2729.9	9.8
40°-50°	4217.4	15.2
50°-60°	5981.7	21.5
60°-70°	8001.9	28.8
70°-80°	3475.1	12.5
80°-90°	354.3	1.3
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°	27819.0	100.0
0°-180°	27819.0	100.0

**Coefficient of Utilization**



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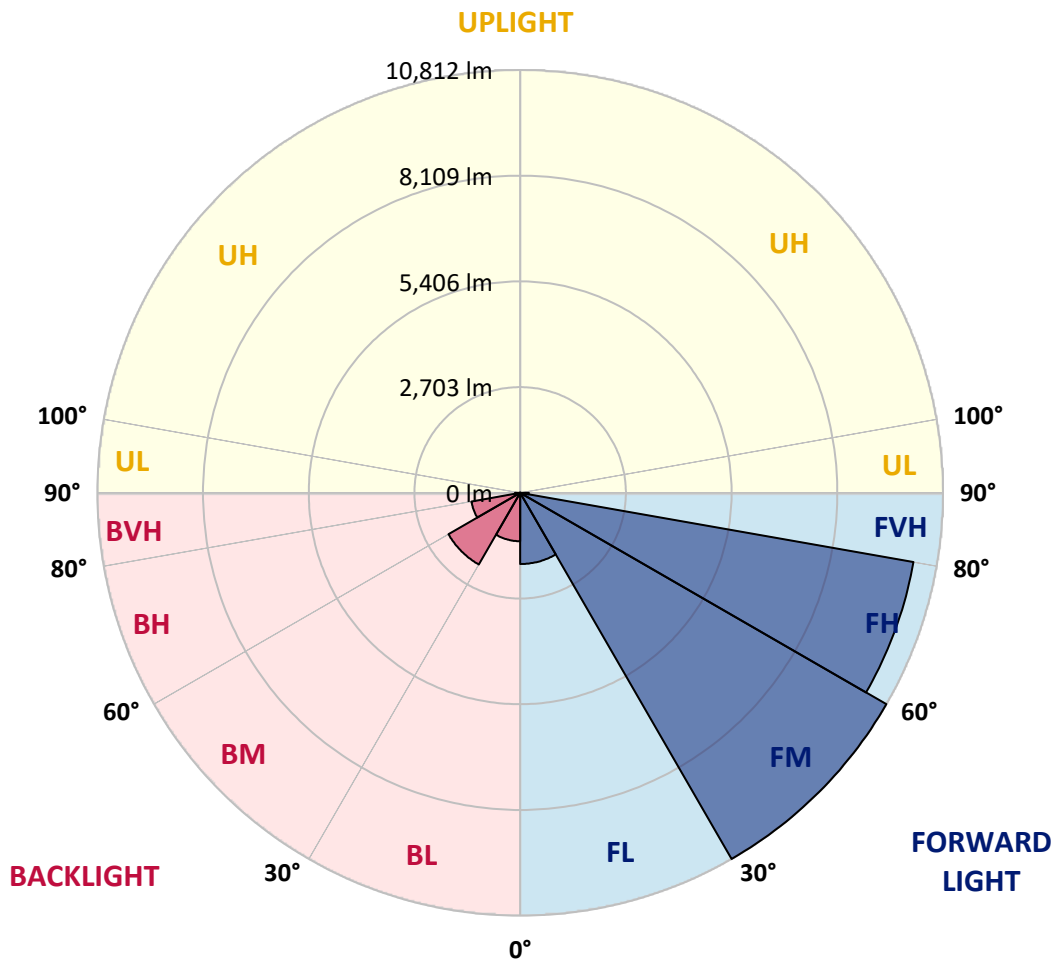
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1820.9	6.5			
FM	(30°-60°)	10811.9	38.9			
FH	(60°-80°)	10211.3	36.7			G4/12000
FVH	(80°-90°)	222.2	0.8			G2/225
BL	(0°-30°)	1237.8	4.4	B3/2500		
BM	(30°-60°)	2117.1	7.6	B2/2500		
BH	(60°-80°)	1265.7	4.5	B3/2500		G3/2500
BVH	(80°-90°)	132.1	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G4**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	3964.3	3964.3	3964.3	3964.3	3964.3	3964.3	3964.3	3964.3	3964.3	3964.3	3964.3
2.5°	3507.0	3530.5	3550.4	3568.7	3605.3	3665.8	3735.5	3792.0	3873.6	3889.5	3932.9
5°	3185.0	3185.0	3200.6	3228.4	3278.2	3368.9	3463.6	3589.8	3767.3	3809.1	3924.9
7.5°	3028.6	3029.8	3039.0	3062.5	3105.8	3188.6	3292.5	3441.3	3681.7	3751.4	3948.4
10°	3086.3	3073.2	3053.3	3041.8	3048.1	3096.7	3195.4	3361.0	3629.2	3718.3	4001.3
12.5°	3409.5	3384.8	3316.4	3225.6	3138.9	3103.5	3161.2	3322.7	3606.9	3710.8	4071.0
15°	3938.0	3927.7	3799.9	3612.1	3401.9	3225.6	3186.2	3308.4	3609.3	3719.9	4153.7
17.5°	4600.7	4585.9	4418.0	4144.6	3801.5	3458.5	3274.2	3320.4	3618.4	3735.5	4233.7
20°	5269.7	5224.7	5043.6	4717.7	4277.1	3774.9	3420.3	3350.6	3630.4	3752.6	4318.1
22.5°	5769.1	5732.1	5569.4	5252.6	4745.1	4141.8	3616.1	3403.1	3668.6	3802.7	4421.6
25°	6208.1	6210.5	6048.9	5742.9	5218.3	4531.0	3868.4	3543.6	3765.7	3905.0	4563.7
27.5°	6751.0	6719.5	6568.3	6264.6	5686.4	4923.8	4173.2	3737.0	3910.6	4051.1	4750.3
30°	7400.1	7377.8	7203.1	6858.8	6205.3	5345.7	4521.5	3961.5	4097.2	4242.9	4994.7
32.5°	8163.8	8153.5	7972.0	7529.0	6804.7	5842.8	4930.6	4258.8	4375.8	4527.0	5345.7
35°	9060.5	9061.6	8847.5	8315.0	7460.6	6421.0	5394.2	4641.3	4714.9	4872.5	5764.0
37.5°	9612.5	9679.3	9599.3	9056.5	8203.2	7067.8	5996.4	5148.7	5101.3	5260.5	6212.1
40°	9730.7	9812.2	10065.8	9790.0	9034.2	7780.1	6530.1	5636.2	5577.3	5771.5	6789.2
42.5°	9565.1	9678.1	10214.6	10408.8	9916.1	8658.1	7247.6	6360.5	6285.7	6547.2	7506.7
45°	9466.4	9550.8	10171.2	10731.2	10681.0	9650.7	8161.4	7269.9	7242.5	7585.5	8334.9
47.5°	9295.7	9372.1	9968.6	10806.0	11130.8	10560.0	9259.0	8382.3	8436.0	8885.7	9269.4
50°	9387.6	9419.0	9742.6	10615.4	11260.9	11226.7	10485.2	9670.2	9854.4	10415.6	10327.6
52.5°	9374.5	9456.0	9716.3	10302.6	11278.0	11638.2	11693.1	11106.9	11494.9	12138.8	11501.3
55°	7579.2	7728.8	9407.5	10223.8	11338.1	12041.3	12768.4	12621.2	13343.9	14094.5	12826.2
57.5°	7237.3	7332.0	8262.5	10389.3	11658.9	12811.8	13964.4	14287.9	15497.0	16368.6	14440.4
60°	7170.0	7287.0	8250.6	10591.9	12309.6	14067.1	15737.8	16305.7	18116.9	19071.3	16312.1
62.5°	6961.1	7087.3	8173.0	10565.2	13233.7	15803.5	18007.9	18450.8	20601.1	21529.2	17877.7
65°	6298.9	6417.1	7541.0	10141.0	13856.9	17656.9	20694.3	20417.3	22562.4	23260.0	18658.2
66°	5845.2	5961.0	7042.7	9641.5	13712.1	18182.6	21646.2	21025.8	23001.4	23548.2	18505.8
67.5°	5015.8	5106.5	6075.2	8522.8	12943.2	18329.8	22446.6	21483.1	23047.1	23240.5	17634.6
70°	3169.1	3195.4	3948.4	5883.4	9797.9	15896.6	21227.9	20347.6	21146.8	20623.4	14783.4
72.5°	1375.0	1365.9	1895.6	2992.8	5547.1	10666.7	17171.7	16789.3	16588.3	15394.7	10348.7
75°	764.9	775.7	984.6	1389.4	2254.2	5239.4	11233.0	10749.5	9076.0	7744.7	4692.6
77.5°	613.7	628.4	816.3	985.8	1012.1	1827.1	5256.5	4277.1	2574.9	2066.3	1303.8
80°	485.1	511.4	712.4	767.7	682.1	753.0	1698.2	1357.9	1018.8	934.5	675.8
82.5°	383.7	402.4	611.3	581.1	477.2	507.4	813.5	792.8	662.6	603.3	390.4
85°	276.2	310.0	502.3	437.8	312.8	341.9	540.1	517.8	379.7	310.0	172.3
87.5°	113.0	147.3	355.0	290.5	174.7	159.2	269.4	253.5	179.9	131.3	85.6
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°	3964.3	3964.3	3964.3	3964.3	3964.3	3964.3	3964.3	3964.3	3964.3	3964.3	3964.3
2.5°	3960.3	3991.8	4032.7	4057.8	4071.0	4080.1	4094.4	4093.2	4097.2	4098.4	4103.6
5°	3986.6	4039.1	4098.4	4114.3	4114.3	4099.6	4085.3	4061.4	4052.2	4049.9	4052.2
7.5°	4055.0	4112.7	4164.1	4145.8	4106.4	4048.3	3973.4	3907.8	3872.4	3860.4	3858.0
10°	4141.8	4211.4	4232.5	4162.9	4047.1	3907.8	3759.3	3651.5	3589.8	3572.7	3567.5
12.5°	4246.9	4312.5	4283.9	4136.6	3922.1	3697.6	3492.3	3320.4	3191.4	3150.8	3148.0
15°	4362.7	4414.0	4312.5	4055.0	3735.5	3404.3	3039.0	2742.1	2581.7	2530.4	2526.4
17.5°	4470.5	4496.8	4295.4	3913.0	3460.8	2924.8	2439.6	2210.8	2155.9	2169.0	2171.4
20°	4562.5	4562.5	4237.7	3709.2	3028.6	2292.4	1985.9	1982.3	2021.7	2061.1	2069.1
22.5°	4663.5	4603.1	4136.6	3421.4	2415.7	1875.7	1831.1	1867.7	1912.3	1955.7	1962.4
25°	4788.5	4636.1	3995.7	2985.3	1899.2	1703.4	1720.5	1750.7	1773.0	1800.9	1804.8
27.5°	4927.8	4677.9	3810.7	2384.3	1648.4	1595.9	1609.0	1619.4	1616.6	1627.3	1629.7
30°	5094.6	4726.8	3556.8	1863.7	1544.6	1503.6	1480.1	1470.9	1470.9	1488.1	1494.4
32.5°	5318.2	4798.9	3192.6	1597.1	1494.4	1437.9	1361.9	1327.7	1340.8	1398.5	1411.6
35°	5564.2	4876.5	2699.9	1506.4	1484.1	1407.7	1289.5	1226.2	1227.8	1281.5	1298.6
37.5°	5832.0	4975.2	2159.4	1489.2	1507.6	1409.3	1251.3	1164.5	1129.1	1129.1	1135.8
40°	6175.1	5076.3	1748.3	1501.2	1557.7	1424.8	1231.8	1115.9	1016.0	1018.8	1024.0
42.5°	6622.0	5163.0	1527.5	1525.9	1618.2	1445.9	1230.2	1051.5	964.7	1024.0	1077.7
45°	7119.1	5206.4	1429.9	1548.5	1666.7	1459.0	1209.5	1041.1	971.5	1147.4	1250.1
47.5°	7690.6	5181.3	1376.2	1556.1	1678.7	1459.0	1185.6	1066.2	1017.2	1328.9	1448.7
50°	8317.8	5109.3	1323.7	1540.6	1674.7	1456.2	1207.9	1090.9	1034.4	1360.3	1443.1
52.5°	9055.3	5048.8	1268.4	1506.4	1646.8	1441.9	1234.1	1080.5	980.6	1236.9	1294.6
55°	9896.2	5065.9	1206.7	1457.8	1603.5	1414.4	1225.0	1038.3	924.1	1089.7	1125.1
57.5°	10971.6	5269.7	1133.1	1396.1	1544.6	1368.3	1192.4	1018.8	907.0	988.6	1009.7
60°	12171.5	5624.3	1041.1	1334.0	1470.9	1294.6	1167.3	1028.0	915.0	980.6	991.0
62.5°	13052.2	5830.8	962.3	1243.3	1371.0	1213.0	1135.8	1039.5	936.1	1008.1	1005.7
65°	13291.4	5491.7	863.6	1110.8	1235.7	1127.9	1096.0	1052.7	945.2	1030.4	1018.8
66°	12956.3	5126.4	820.2	1049.1	1167.3	1085.7	1076.5	1051.5	941.2	1033.2	1013.3
67.5°	12142.8	4377.0	745.4	958.3	1058.2	1022.8	1045.1	1039.5	930.5	1030.4	1002.9
70°	9903.0	2986.5	637.6	798.0	880.7	900.2	984.6	997.7	896.3	984.6	924.1
72.5°	6919.3	1819.2	563.9	619.3	712.4	767.7	901.8	939.6	850.5	859.6	801.9
75°	3343.8	966.3	511.4	480.0	553.2	641.5	801.9	860.8	778.1	719.2	698.1
77.5°	1042.3	590.2	433.8	386.4	433.8	517.8	670.2	754.6	692.9	602.1	594.2
80°	560.0	433.8	333.9	310.0	343.1	406.3	526.9	629.6	595.4	540.1	482.4
82.5°	369.3	281.4	247.1	240.4	261.5	310.0	391.6	521.8	521.8	462.9	336.7
85°	190.6	172.3	169.5	169.5	182.7	206.6	266.6	402.4	428.6	244.4	202.6
87.5°	94.7	98.7	91.9	95.9	102.7	101.1	127.4	202.6	242.0	148.4	123.4
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)