

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: P301836

Luminaire Tested: **GLNA-AF-07-LED-E1-SL4-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301836
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-07-LED-E1-SL4-7027-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 2700K 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: 26975.4 lumens
Efficiency: N/A
Efficacy: 69.0 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G4

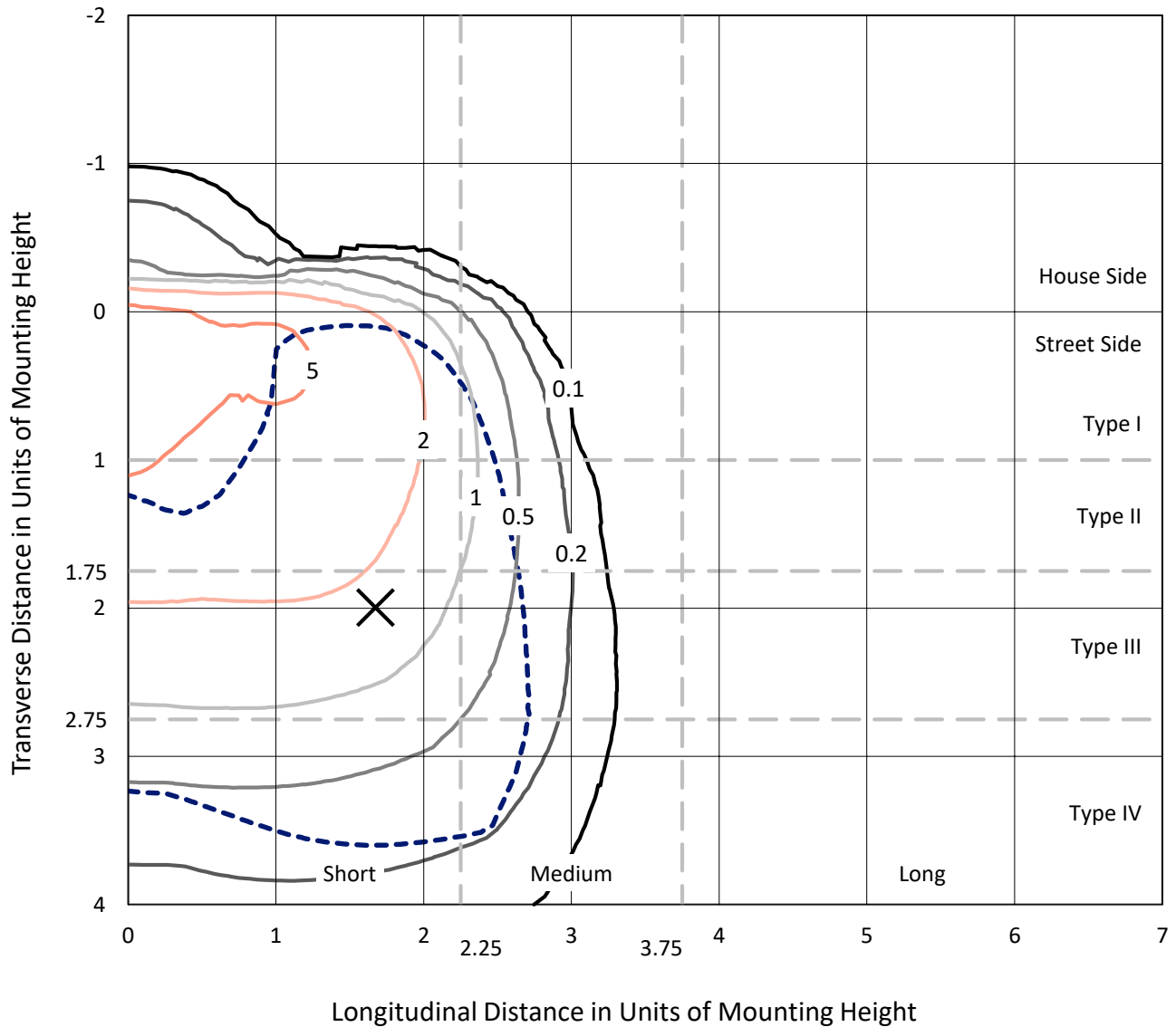
Input Watts (W): 391
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

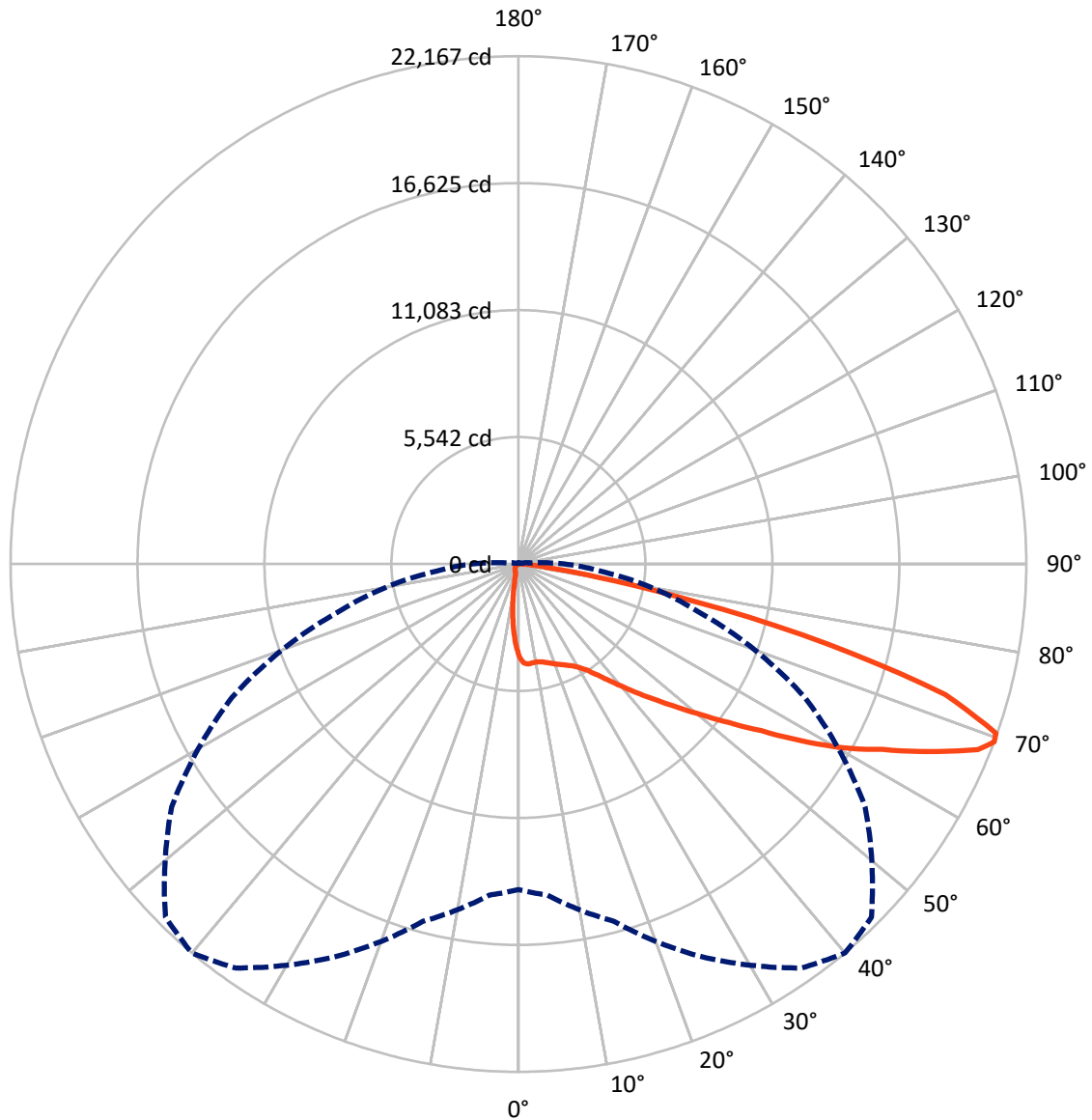
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.1 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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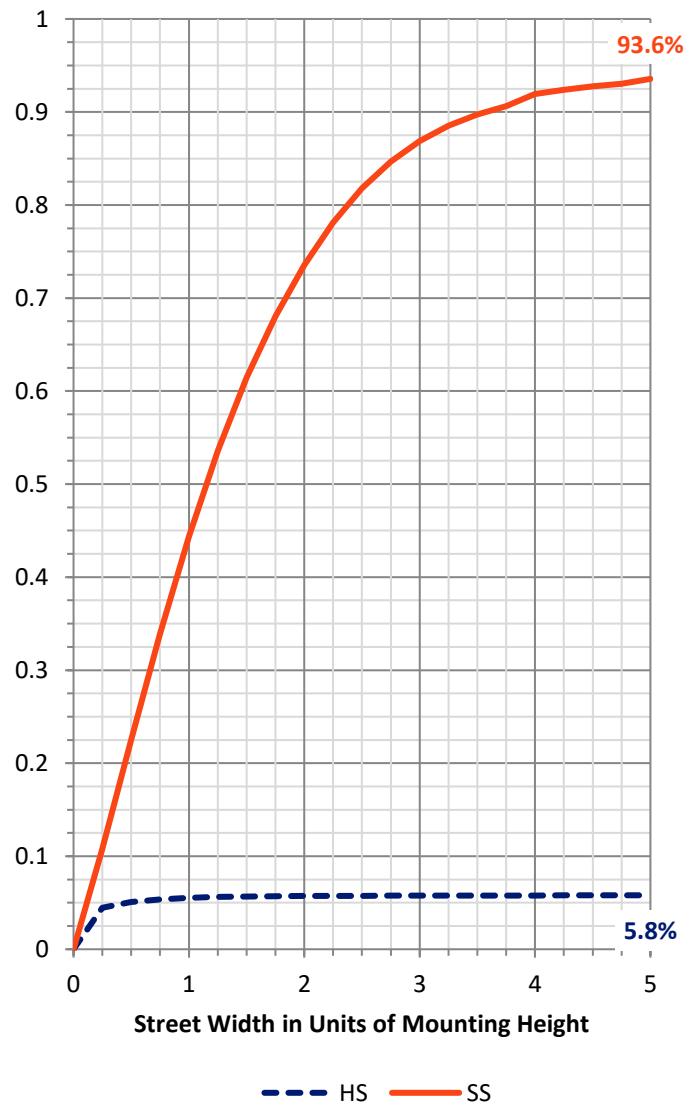
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1578.2	0.0	1578.2
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	25397.2	0.0	25397.2
	% Fixture	94.1	0.0	94.1
Total	Lumens	26975.4	0.0	26975.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	326.8	1.2
10°-20°	803.6	3.0
20°-30°	1353.5	5.0
30°-40°	2215.8	8.2
40°-50°	3836.6	14.2
50°-60°	6043.0	22.4
60°-70°	7891.9	29.3
70°-80°	4064.7	15.1
80°-90°	439.7	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°	26975.4	100.0
0°-180°	26975.4	100.0



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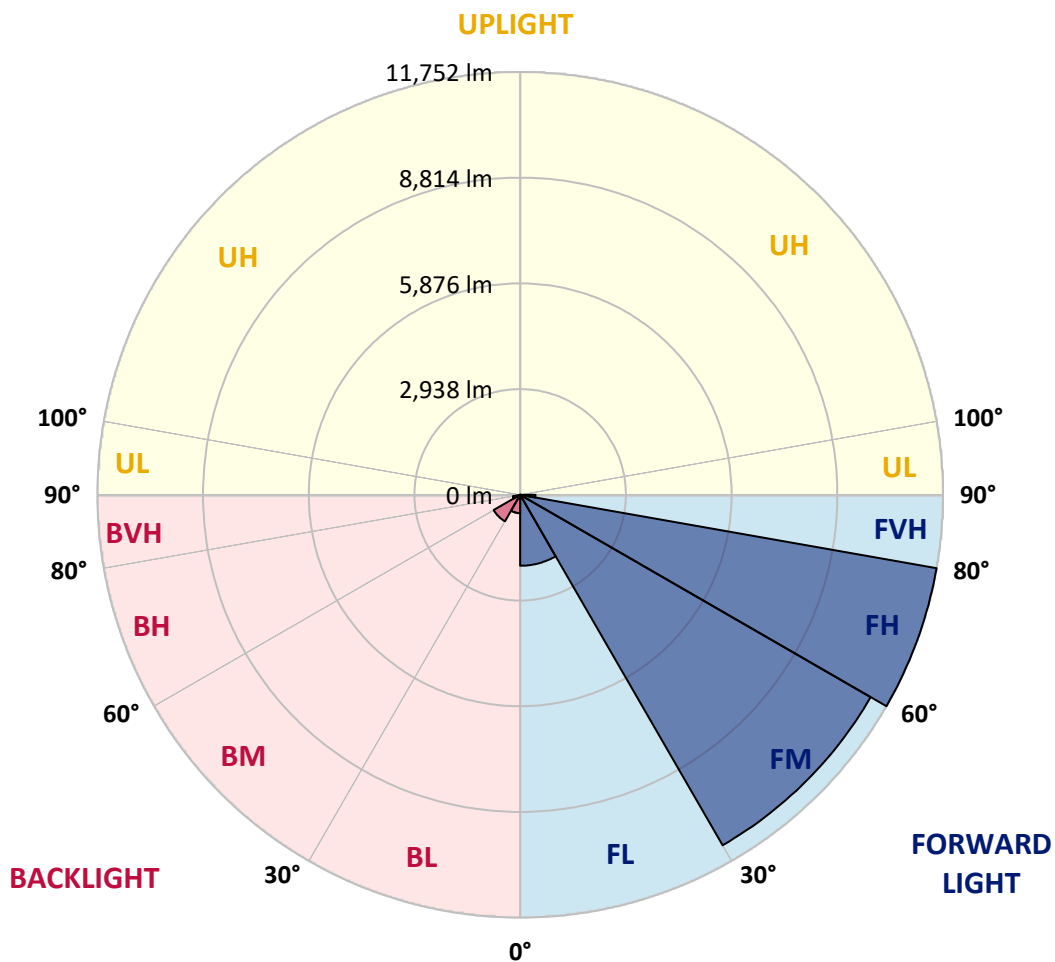
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1972.7	7.3			
FM	(30°-60°)	11247.1	41.7			
FH	(60°-80°)	11751.6	43.6			G4/12000
FVH	(80°-90°)	425.9	1.6			G3/500
BL	(0°-30°)	511.2	1.9	B2/1000		
BM	(30°-60°)	848.3	3.1	B1/1000		
BH	(60°-80°)	204.9	0.8	B1/500		G1/500
BVH	(80°-90°)	13.8	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	4030.3	4030.3	4030.3	4030.3	4030.3	4030.3	4030.3	4030.3	4030.3	4030.3	4030.3
2.5°	4425.3	4401.2	4386.7	4367.5	4343.4	4322.5	4314.5	4255.1	4198.9	4121.8	4033.5
5°	4507.2	4499.1	4473.4	4447.7	4418.8	4386.7	4369.1	4298.4	4218.1	4105.7	3951.6
7.5°	4515.2	4505.6	4473.4	4438.1	4398.0	4359.4	4328.9	4258.3	4184.4	4070.4	3882.5
10°	4502.3	4491.1	4467.0	4428.5	4378.7	4341.8	4311.3	4243.8	4181.2	4078.4	3869.7
12.5°	4487.9	4476.7	4465.4	4446.1	4402.8	4377.1	4351.4	4287.2	4231.0	4144.3	3916.3
15°	4502.3	4495.9	4508.8	4500.7	4476.7	4454.2	4428.5	4370.7	4319.3	4247.0	4001.4
17.5°	4563.4	4563.4	4603.5	4608.3	4585.8	4553.7	4516.8	4459.0	4415.6	4354.6	4102.5
20°	4706.3	4701.4	4752.8	4762.5	4707.9	4658.1	4603.5	4532.9	4499.1	4460.6	4202.1
22.5°	4951.9	4929.5	4960.0	4950.3	4842.7	4765.7	4698.2	4611.5	4593.9	4576.2	4312.9
25°	5271.5	5258.6	5279.5	5184.8	4995.3	4890.9	4810.6	4712.7	4712.7	4730.3	4438.1
27.5°	5735.5	5687.3	5616.7	5449.7	5165.5	5032.2	4945.5	4841.1	4868.4	4934.3	4603.5
30°	6210.8	6157.8	5995.6	5738.7	5372.6	5232.9	5131.8	5022.6	5086.8	5207.2	4825.1
32.5°	6679.7	6620.2	6390.6	6066.3	5669.7	5530.0	5432.0	5311.6	5419.2	5621.5	5149.4
35°	7134.1	7081.1	6816.1	6434.0	6064.7	5949.1	5859.1	5754.8	5892.9	6175.5	5607.1
37.5°	7644.7	7586.9	7264.1	6849.9	6544.8	6461.3	6395.4	6291.1	6531.9	6946.2	6244.5
40°	8272.5	8174.5	7739.4	7326.7	7100.3	7060.2	7015.2	7000.8	7374.9	7948.1	7093.9
42.5°	8991.8	8831.3	8237.2	7829.3	7710.5	7739.4	7728.2	7792.4	8429.8	9194.2	8128.0
45°	9711.2	9504.1	8791.1	8365.6	8381.7	8482.8	8545.5	8802.4	9751.3	10623.2	9240.7
47.5°	10321.3	10117.4	9322.6	8945.3	9138.0	9337.1	9507.3	9993.8	11109.7	12029.8	10106.2
50°	10843.2	10650.5	9886.2	9582.7	10016.3	10337.4	10613.6	11334.5	12570.9	13100.8	10713.1
52.5°	11270.3	11141.9	10470.7	10313.3	11019.8	11490.3	11894.9	12758.8	13865.1	13971.1	11185.2
55°	11686.2	11594.7	11098.5	11182.0	12198.4	12839.1	13351.3	14269.7	14979.4	14696.8	11638.0
57.5°	12164.7	12081.2	11814.6	12283.5	13747.9	14553.9	15112.7	15608.9	15960.5	15438.7	12065.1
60°	12652.8	12604.6	12611.1	13507.0	15527.0	16300.9	16609.2	16737.7	16923.9	16137.1	12089.2
62.5°	13118.5	13210.0	13521.5	14868.6	17230.6	17824.7	17980.5	18107.3	17888.9	16247.9	11169.1
65°	13906.8	14056.2	14799.6	16691.1	19104.4	19740.3	19900.9	19465.7	18041.5	14815.7	9085.0
67.5°	14292.2	14565.2	15891.5	18389.9	20922.1	21628.6	21569.2	19554.0	16190.1	11297.6	5830.2
69°	14211.9	14502.6	16143.6	18910.2	21525.8	22166.5	21789.2	18473.4	13792.8	8184.2	3579.1
70°	13894.0	14187.8	16013.5	18890.9	21602.9	22110.3	21381.3	17139.1	11662.1	5984.4	2238.3
72.5°	11602.7	11856.4	14216.7	17074.9	19900.9	19488.2	17887.3	11874.0	5682.5	1629.8	504.2
75°	7142.1	7283.4	10200.9	12863.1	15030.8	13971.1	11917.4	5907.3	1694.0	460.8	279.4
77.5°	3773.4	3837.6	5584.6	7582.0	9528.1	7883.9	6108.0	2304.2	780.4	289.0	202.3
80°	2230.3	2278.5	3007.4	3466.7	4123.4	3444.2	2442.2	1414.6	558.8	181.4	179.8
82.5°	1276.5	1307.0	2180.5	1926.8	1625.0	1387.3	1215.5	1340.7	335.6	122.0	186.3
85°	468.9	475.3	1226.7	1466.0	966.6	574.8	603.7	1111.1	89.9	77.1	146.1
87.5°	218.4	213.6	631.0	897.6	565.2	364.5	470.5	244.1	35.3	49.8	40.1
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°	4030.3	4030.3	4030.3	4030.3	4030.3	4030.3	4030.3	4030.3	4030.3	4030.3	4030.3
2.5°	3982.1	3922.7	3815.1	3704.3	3591.9	3505.2	3420.1	3352.7	3330.2	3288.4	3291.7
5°	3860.1	3750.9	3526.1	3298.1	3060.4	2864.5	2679.9	2530.6	2458.3	2384.4	2384.4
7.5°	3754.1	3595.1	3243.5	2872.6	2488.8	2166.1	1875.4	1657.1	1536.6	1440.3	1438.7
10°	3714.0	3498.8	3007.4	2476.0	1941.3	1501.3	1156.1	934.5	820.5	746.6	743.4
12.5°	3731.6	3465.1	2826.0	2109.9	1438.7	965.0	669.6	526.7	478.5	456.0	456.0
15°	3783.0	3455.4	2644.6	1751.8	1016.4	603.7	444.8	406.2	403.0	403.0	403.0
17.5°	3845.6	3458.6	2458.3	1403.4	692.1	431.9	383.8	378.9	382.2	382.2	382.2
20°	3909.8	3460.3	2257.6	1080.6	488.1	375.7	361.3	359.7	362.9	362.9	364.5
22.5°	3988.5	3468.3	2056.9	807.7	403.0	354.9	343.6	343.6	345.2	345.2	343.6
25°	4078.4	3484.3	1848.1	598.9	367.7	340.4	330.8	329.2	330.8	329.2	327.6
27.5°	4190.8	3506.8	1615.3	468.9	351.6	326.0	317.9	317.9	316.3	314.7	313.1
30°	4332.1	3532.5	1353.6	398.2	335.6	313.1	305.1	303.5	301.9	298.7	298.7
32.5°	4547.3	3588.7	1095.1	361.3	317.9	295.4	289.0	289.0	285.8	282.6	281.0
35°	4878.1	3699.5	863.9	338.8	298.7	276.2	268.1	268.1	264.9	263.3	261.7
37.5°	5335.7	3868.1	671.2	317.9	279.4	255.3	247.3	245.7	242.5	239.2	237.6
40°	5944.2	4076.8	528.3	298.7	260.1	234.4	228.0	224.8	218.4	213.6	213.6
42.5°	6708.6	4314.5	428.7	277.8	237.6	215.2	210.3	205.5	194.3	189.5	187.9
45°	7508.2	4528.0	362.9	253.7	215.2	195.9	192.7	184.7	170.2	165.4	165.4
47.5°	8084.6	4577.8	319.5	231.2	194.3	175.0	173.4	159.0	146.1	142.9	141.3
50°	8444.3	4479.9	284.2	208.7	175.0	155.8	150.9	133.3	125.2	122.0	120.4
52.5°	8686.8	4304.8	255.3	189.5	157.4	138.1	126.8	114.0	107.6	104.4	104.4
55°	8881.0	4057.6	226.4	171.8	142.9	123.6	107.6	97.9	91.5	88.3	88.3
57.5°	8935.6	3722.0	197.5	157.4	128.5	109.2	91.5	85.1	77.1	75.5	75.5
60°	8539.0	3116.6	175.0	139.7	115.6	94.7	80.3	72.3	64.2	62.6	61.0
62.5°	7493.7	2411.7	154.1	123.6	101.2	81.9	69.0	59.4	53.0	53.0	53.0
65°	5716.2	1616.9	134.9	107.6	88.3	69.0	59.4	48.2	45.0	45.0	46.6
67.5°	3421.7	879.9	115.6	91.5	75.5	57.8	49.8	41.7	40.1	41.7	41.7
69°	2005.5	517.0	104.4	81.9	65.8	51.4	43.4	36.9	40.1	41.7	41.7
70°	1238.0	348.4	96.3	73.9	59.4	46.6	40.1	35.3	38.5	40.1	40.1
72.5°	345.2	179.8	77.1	57.8	48.2	38.5	32.1	32.1	36.9	38.5	38.5
75°	224.8	133.3	59.4	43.4	36.9	30.5	27.3	30.5	35.3	36.9	36.9
77.5°	186.3	109.2	48.2	35.3	30.5	28.9	25.7	27.3	32.1	33.7	33.7
80°	170.2	77.1	38.5	32.1	27.3	25.7	24.1	22.5	28.9	30.5	30.5
82.5°	162.2	61.0	33.7	28.9	25.7	22.5	20.9	22.5	25.7	27.3	28.9
85°	101.2	40.1	30.5	27.3	22.5	20.9	20.9	20.9	24.1	25.7	25.7
87.5°	36.9	32.1	27.3	22.5	19.3	19.3	19.3	19.3	20.9	24.1	24.1
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)