

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: P301849

Luminaire Tested: **GLNA-AF-09-LED-E1-SL4-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301849
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-09-LED-E1-SL4-7030-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 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: 37957.5 lumens
Efficiency: N/A
Efficacy: 75.8 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G5

Input Watts (W): 501
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

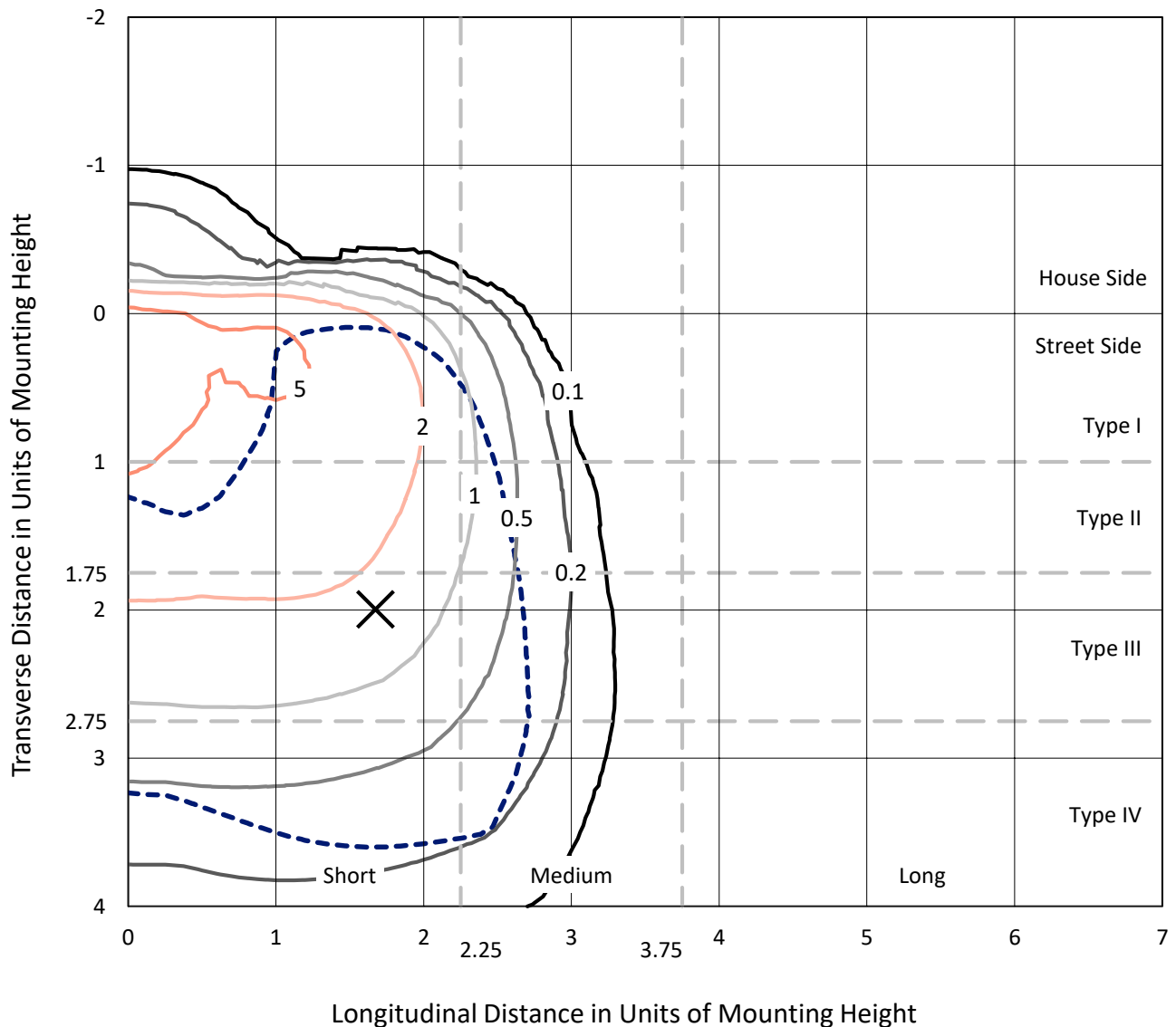


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Iso-Footcandle Lines of Horizontal Illumination

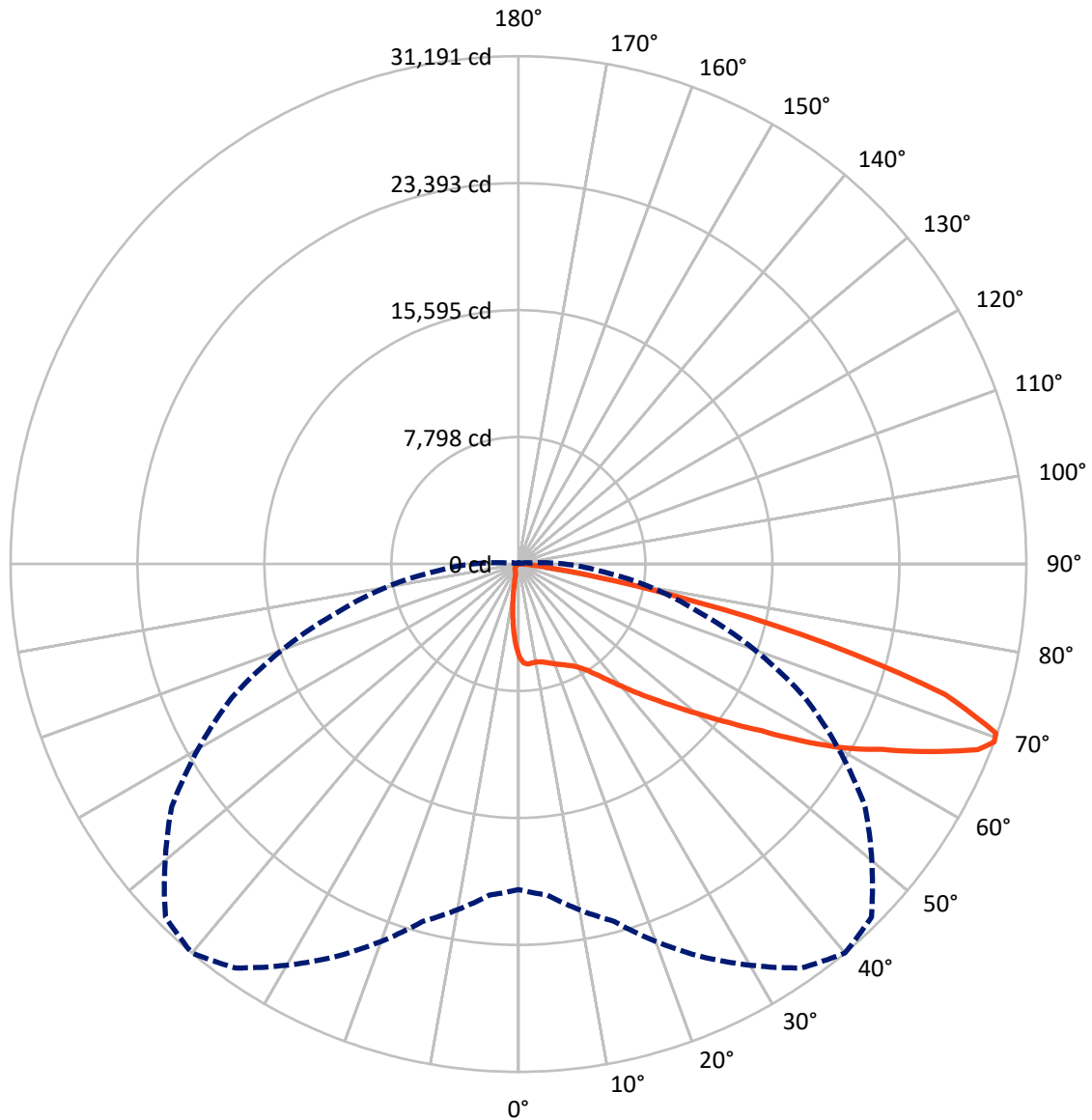
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.9 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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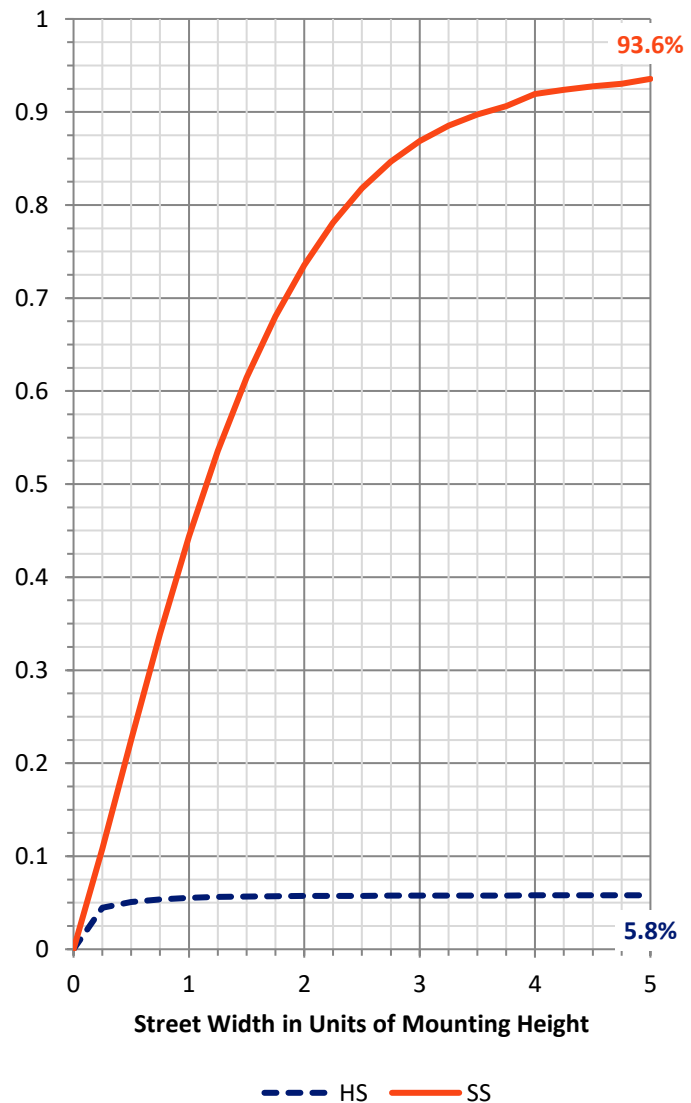
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2220.7	0.0	2220.7
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	35736.8	0.0	35736.8
	% Fixture	94.1	0.0	94.1
Total	Lumens	37957.5	0.0	37957.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	459.8	1.2
10°-20°	1130.8	3.0
20°-30°	1904.6	5.0
30°-40°	3117.9	8.2
40°-50°	5398.5	14.2
50°-60°	8503.1	22.4
60°-70°	11104.8	29.3
70°-80°	5719.4	15.1
80°-90°	618.7	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°	37957.5	100.0
0°-180°	37957.5	100.0

Coefficient of Utilization



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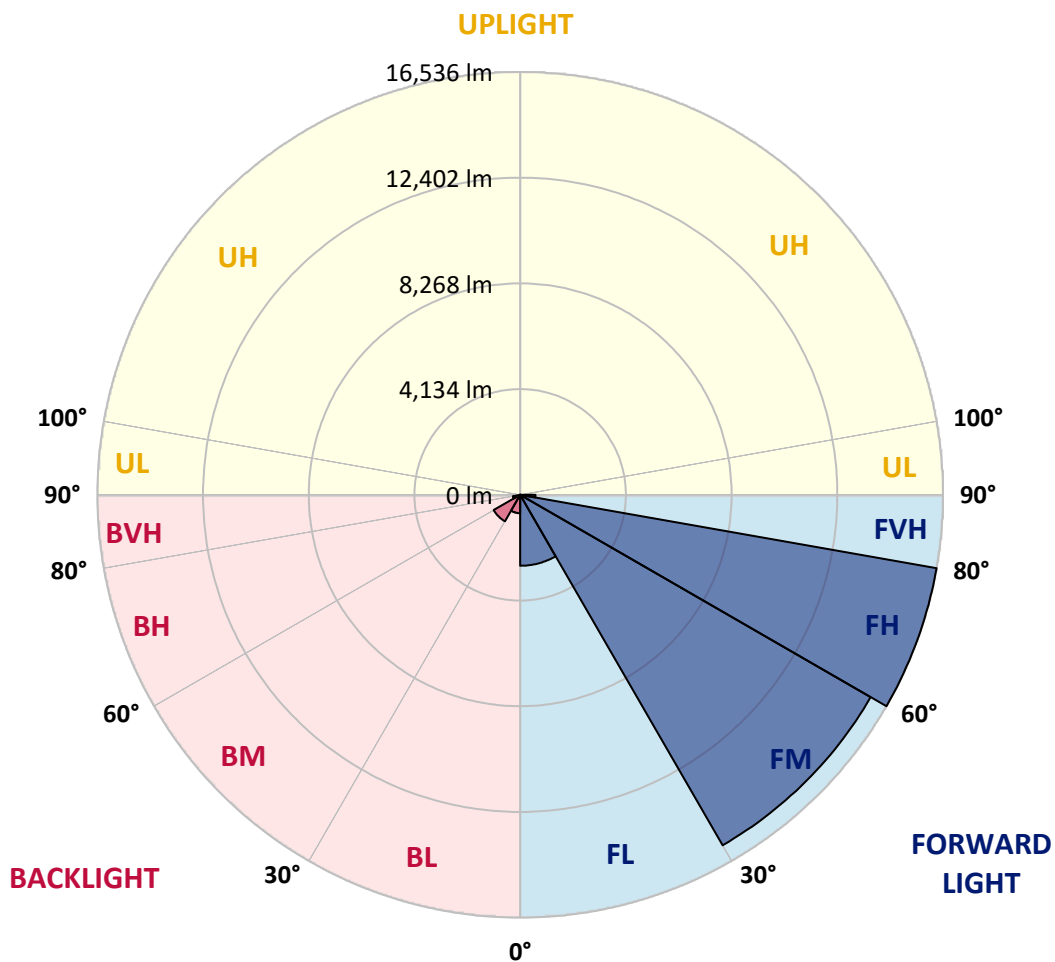
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2775.8	7.3			
FM	(30°-60°)	15825.9	41.7			
FH	(60°-80°)	16535.9	43.6			G5
FVH	(80°-90°)	599.3	1.6			G4/750
BL	(0°-30°)	719.4	1.9	B2/1000		
BM	(30°-60°)	1193.6	3.1	B2/2500		
BH	(60°-80°)	288.4	0.8	B1/500		G1/500
BVH	(80°-90°)	19.4	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-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	5671.0	5671.0	5671.0	5671.0	5671.0	5671.0	5671.0	5671.0	5671.0	5671.0	5671.0
2.5°	6226.9	6193.0	6172.6	6145.5	6111.6	6082.3	6071.0	5987.4	5908.3	5799.8	5675.6
5°	6342.1	6330.8	6294.6	6258.5	6217.8	6172.6	6147.8	6048.4	5935.4	5777.2	5560.3
7.5°	6353.4	6339.8	6294.6	6244.9	6188.4	6134.2	6091.3	5991.9	5887.9	5727.5	5463.2
10°	6335.3	6319.5	6285.6	6231.4	6161.3	6109.4	6066.4	5971.5	5883.4	5738.8	5445.1
12.5°	6315.0	6299.2	6283.3	6256.2	6195.2	6159.1	6122.9	6032.5	5953.5	5831.5	5510.6
15°	6335.3	6326.3	6344.3	6333.0	6299.2	6267.5	6231.4	6150.0	6077.7	5976.1	5630.4
17.5°	6421.2	6421.2	6477.6	6484.4	6452.8	6407.6	6355.6	6274.3	6213.3	6127.4	5772.7
20°	6622.2	6615.5	6687.8	6701.3	6624.5	6554.5	6477.6	6378.2	6330.8	6276.6	5912.8
22.5°	6967.9	6936.3	6979.2	6965.7	6814.3	6705.8	6611.0	6488.9	6464.1	6439.2	6068.7
25°	7417.5	7399.5	7428.8	7295.5	7028.9	6882.1	6769.1	6631.3	6631.3	6656.1	6244.9
27.5°	8070.5	8002.7	7903.3	7668.3	7268.4	7080.9	6958.9	6812.0	6850.4	6943.1	6477.6
30°	8739.3	8664.7	8436.5	8075.0	7559.9	7363.3	7221.0	7067.3	7157.7	7327.2	6789.4
32.5°	9399.0	9315.4	8992.3	8535.9	7977.9	7781.3	7643.5	7474.0	7625.4	7910.1	7245.8
35°	10038.4	9963.9	9591.1	9053.3	8533.7	8371.0	8244.5	8097.6	8291.9	8689.6	7889.8
37.5°	10756.9	10675.6	10221.4	9638.5	9209.2	9091.8	8999.1	8852.3	9191.2	9774.1	8786.7
40°	11640.3	11502.5	10890.2	10309.6	9991.0	9934.5	9871.2	9850.9	10377.3	11183.9	9981.9
42.5°	12652.5	12426.6	11590.6	11016.7	10849.6	10890.2	10874.4	10964.8	11861.8	12937.2	11437.0
45°	13664.7	13373.3	12370.1	11771.4	11794.0	11936.3	12024.4	12385.9	13721.2	14948.1	13002.7
47.5°	14523.3	14236.4	13118.0	12587.0	12858.1	13138.3	13377.8	14062.4	15632.7	16927.3	14220.5
50°	15257.6	14986.5	13911.0	13484.0	14094.0	14545.9	14934.5	15949.0	17688.7	18434.3	15074.6
52.5°	15858.6	15677.8	14733.4	14512.0	15506.1	16168.1	16737.5	17953.0	19509.8	19658.9	15738.9
55°	16443.8	16315.0	15616.8	15734.3	17164.5	18066.0	18786.8	20079.1	21077.8	20680.1	16376.0
57.5°	17117.1	16999.6	16624.5	17284.3	19344.8	20479.0	21265.3	21963.4	22458.3	21724.0	16977.0
60°	17803.9	17736.1	17745.2	19005.9	21848.2	22937.2	23371.0	23551.8	23813.9	22706.8	17010.9
62.5°	18459.1	18587.9	19026.3	20921.9	24245.4	25081.4	25300.6	25479.0	25171.8	22862.7	15716.3
65°	19568.5	19778.6	20824.7	23486.3	26882.1	27776.8	28002.8	27390.5	25386.4	20847.3	12783.6
67.5°	20110.8	20494.9	22361.1	25876.7	29439.7	30433.9	30350.3	27514.7	22781.3	15897.0	8203.8
69°	19997.8	20406.7	22715.8	26608.7	30289.3	31190.8	30659.8	25994.2	19408.1	11516.1	5036.2
70°	19550.4	19963.9	22532.8	26581.6	30397.7	31111.7	30085.9	24116.6	16409.9	8420.7	3149.6
72.5°	16326.3	16683.3	20004.6	24026.3	28002.8	27422.1	25169.5	16708.1	7996.0	2293.3	709.4
75°	10049.7	10248.6	14353.9	18099.9	21150.1	19658.9	16769.1	8312.3	2383.6	648.4	393.1
77.5°	5309.5	5399.9	7858.1	10668.8	13407.2	11093.6	8594.7	3242.2	1098.1	406.7	284.7
80°	3138.3	3206.1	4231.8	4878.0	5802.1	4846.4	3436.5	1990.5	786.3	255.3	253.1
82.5°	1796.2	1839.1	3068.2	2711.3	2286.5	1952.1	1710.4	1886.6	472.2	171.7	262.1
85°	659.7	668.8	1726.2	2062.8	1360.1	808.9	849.5	1563.5	126.5	108.5	205.6
87.5°	307.3	300.5	887.9	1263.0	795.3	512.9	662.0	343.4	49.7	70.0	56.5
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°	5671.0	5671.0	5671.0	5671.0	5671.0	5671.0	5671.0	5671.0	5671.0	5671.0	5671.0
2.5°	5603.3	5519.7	5368.3	5212.4	5054.2	4932.2	4812.5	4717.6	4686.0	4627.2	4631.7
5°	5431.6	5277.9	4961.6	4640.8	4306.4	4030.7	3770.9	3560.8	3459.1	3355.2	3355.2
7.5°	5282.4	5058.8	4564.0	4042.0	3502.0	3047.9	2639.0	2331.7	2162.2	2026.7	2024.4
10°	5225.9	4923.2	4231.8	3484.0	2731.6	2112.5	1626.8	1315.0	1154.5	1050.6	1046.1
12.5°	5250.8	4875.7	3976.5	2968.8	2024.4	1357.9	942.2	741.1	673.3	641.7	641.7
15°	5323.1	4862.2	3721.2	2465.0	1430.2	849.5	625.8	571.6	567.1	567.1	567.1
17.5°	5411.2	4866.7	3459.1	1974.7	973.8	607.8	540.0	533.2	537.7	537.7	537.7
20°	5501.6	4869.0	3176.7	1520.6	686.9	528.7	508.4	506.1	510.6	510.6	512.9
22.5°	5612.3	4880.3	2894.3	1136.5	567.1	499.3	483.5	483.5	485.8	485.8	483.5
25°	5738.8	4902.9	2600.5	842.7	517.4	479.0	465.4	463.2	465.4	463.2	460.9
27.5°	5897.0	4934.5	2272.9	659.7	494.8	458.7	447.4	447.4	445.1	442.8	440.6
30°	6095.8	4970.6	1904.7	560.3	472.2	440.6	429.3	427.0	424.8	420.2	420.2
32.5°	6398.6	5049.7	1540.9	508.4	447.4	415.7	406.7	406.7	402.2	397.7	395.4
35°	6864.0	5205.6	1215.5	476.7	420.2	388.6	377.3	377.3	372.8	370.5	368.3
37.5°	7507.9	5442.9	944.4	447.4	393.1	359.2	347.9	345.7	341.2	336.6	334.4
40°	8364.2	5736.6	743.3	420.2	366.0	329.9	320.8	316.3	307.3	300.5	300.5
42.5°	9439.7	6071.0	603.3	390.9	334.4	302.8	296.0	289.2	273.4	266.6	264.3
45°	10564.9	6371.5	510.6	357.0	302.8	275.6	271.1	259.8	239.5	232.7	232.7
47.5°	11376.0	6441.5	449.6	325.4	273.4	246.3	244.0	223.7	205.6	201.1	198.8
50°	11882.1	6303.7	399.9	293.7	246.3	219.2	212.4	187.5	176.2	171.7	169.5
52.5°	12223.3	6057.4	359.2	266.6	221.4	194.3	178.5	160.4	151.4	146.9	146.9
55°	12496.6	5709.5	318.6	241.8	201.1	174.0	151.4	137.8	128.8	124.3	124.3
57.5°	12573.5	5237.2	277.9	221.4	180.8	153.6	128.8	119.7	108.5	106.2	106.2
60°	12015.4	4385.5	246.3	196.6	162.7	133.3	113.0	101.7	90.4	88.1	85.9
62.5°	10544.5	3393.6	216.9	174.0	142.3	115.2	97.2	83.6	74.6	74.6	74.6
65°	8043.4	2275.2	189.8	151.4	124.3	97.2	83.6	67.8	63.3	63.3	65.5
67.5°	4814.7	1238.1	162.7	128.8	106.2	81.3	70.0	58.7	56.5	58.7	58.7
69°	2822.0	727.5	146.9	115.2	92.6	72.3	61.0	52.0	56.5	58.7	58.7
70°	1742.0	490.3	135.6	103.9	83.6	65.5	56.5	49.7	54.2	56.5	56.5
72.5°	485.8	253.1	108.5	81.3	67.8	54.2	45.2	45.2	52.0	54.2	54.2
75°	316.3	187.5	83.6	61.0	52.0	42.9	38.4	42.9	49.7	52.0	52.0
77.5°	262.1	153.6	67.8	49.7	42.9	40.7	36.2	38.4	45.2	47.4	47.4
80°	239.5	108.5	54.2	45.2	38.4	36.2	33.9	31.6	40.7	42.9	42.9
82.5°	228.2	85.9	47.4	40.7	36.2	31.6	29.4	31.6	36.2	38.4	40.7
85°	142.3	56.5	42.9	38.4	31.6	29.4	29.4	29.4	33.9	36.2	36.2
87.5°	52.0	45.2	38.4	31.6	27.1	27.1	27.1	27.1	29.4	33.9	33.9
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)