

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: P301840

Luminaire Tested: **GLNA-AF-07-LED-E1-SL4-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301840
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-SL4-7050-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 5000K 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: 31047.7 lumens
Efficiency: N/A
Efficacy: 79.4 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G5

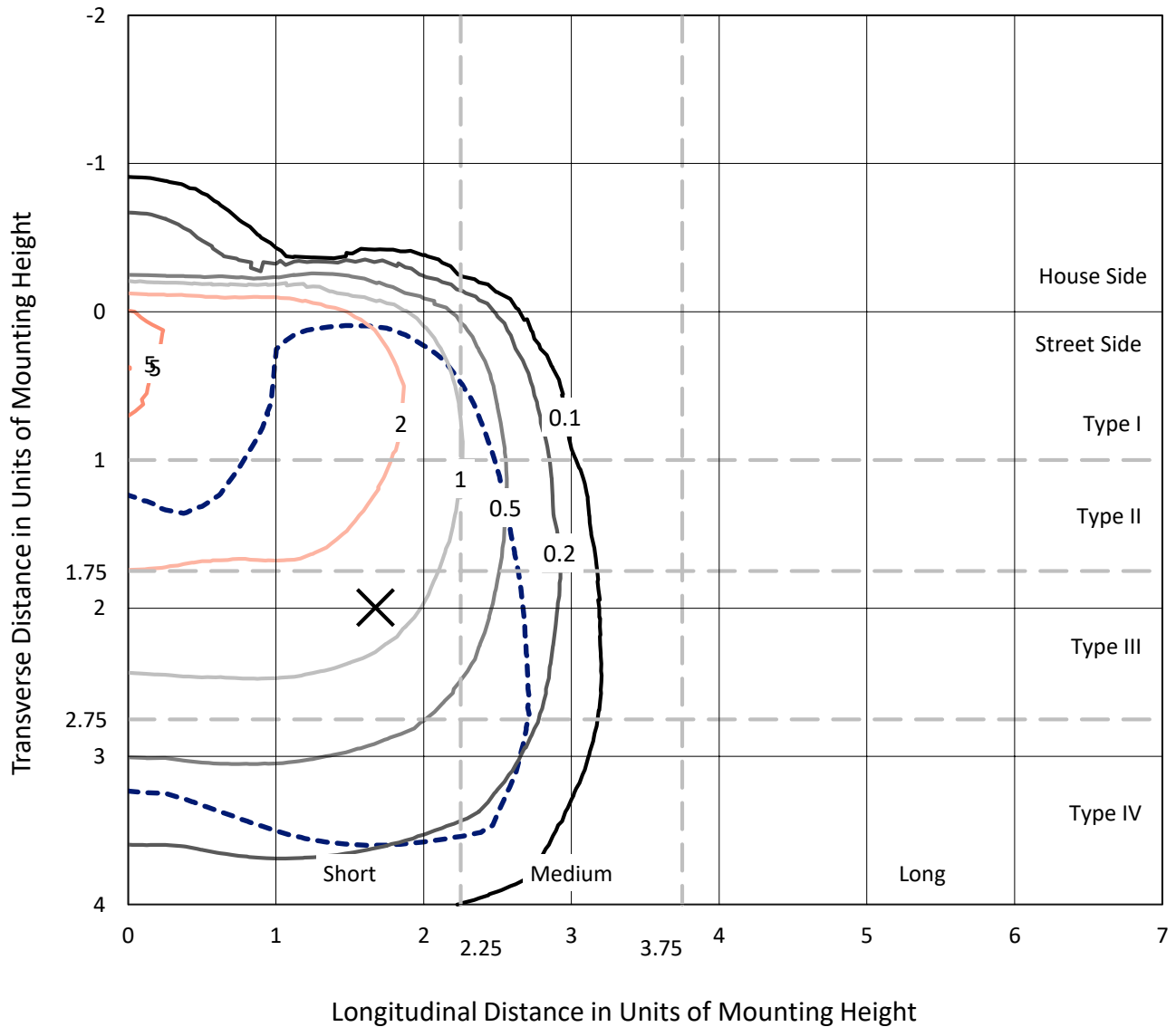
Input Watts (W): 391
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

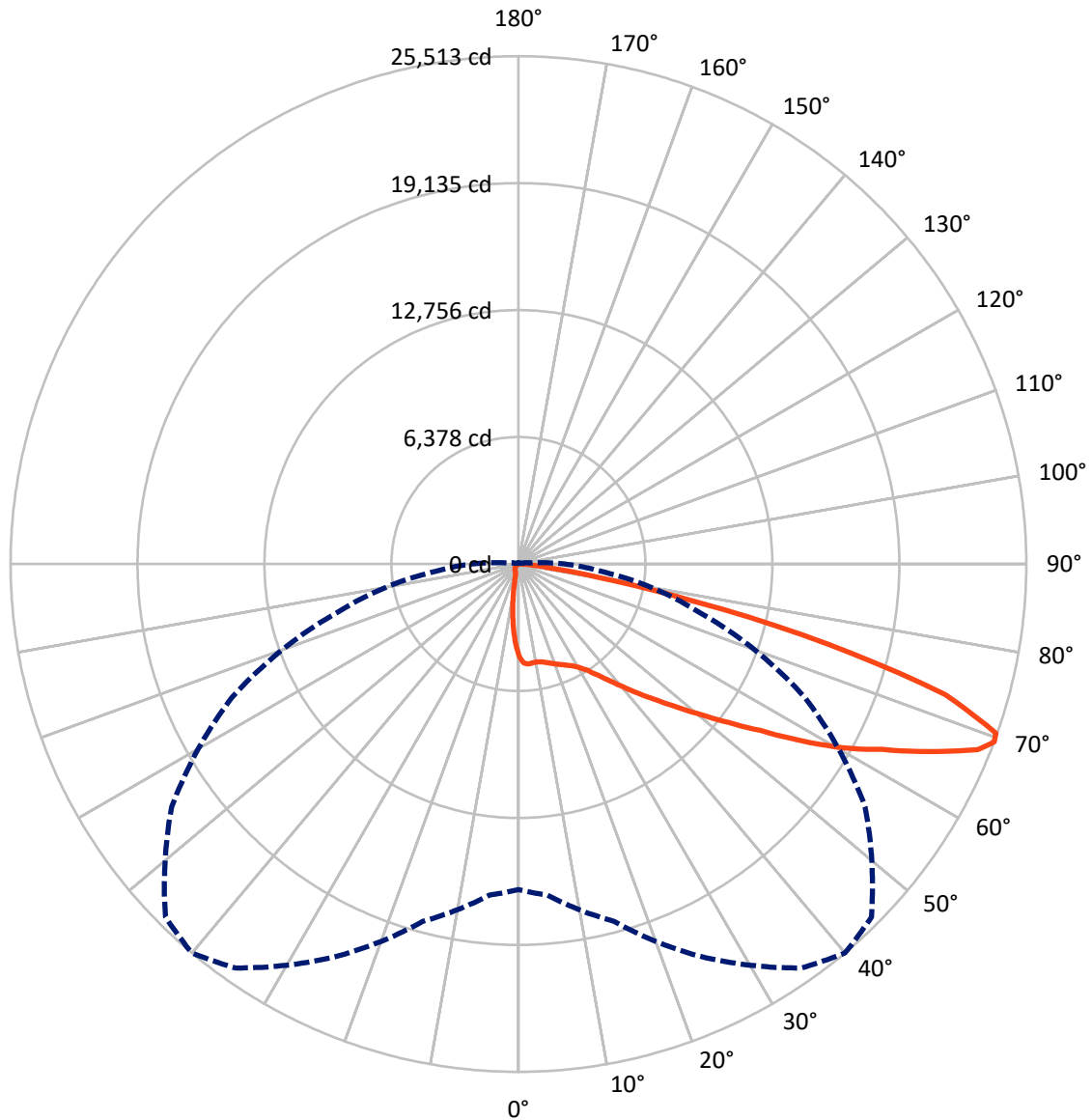
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.6 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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CATALOG NUMBER: GLNA-AF-07-LED-E1-SL4-7050-HSS

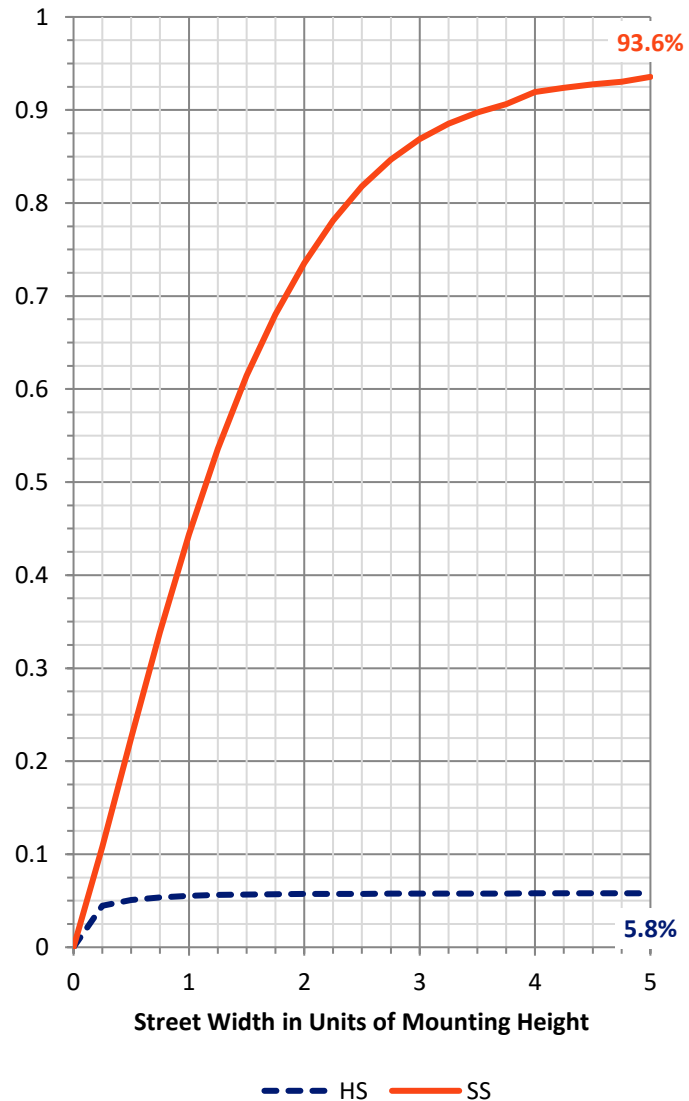
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1816.5	0.0	1816.5
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	29231.2	0.0	29231.2
	% Fixture	94.1	0.0	94.1
Total	Lumens	31047.7	0.0	31047.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	376.1	1.2
10°-20°	924.9	3.0
20°-30°	1557.9	5.0
30°-40°	2550.3	8.2
40°-50°	4415.7	14.2
50°-60°	6955.2	22.4
60°-70°	9083.3	29.3
70°-80°	4678.3	15.1
80°-90°	506.1	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°	31047.7	100.0
0°-180°	31047.7	100.0

Coefficient of Utilization



REPORT NUMBER: P301840

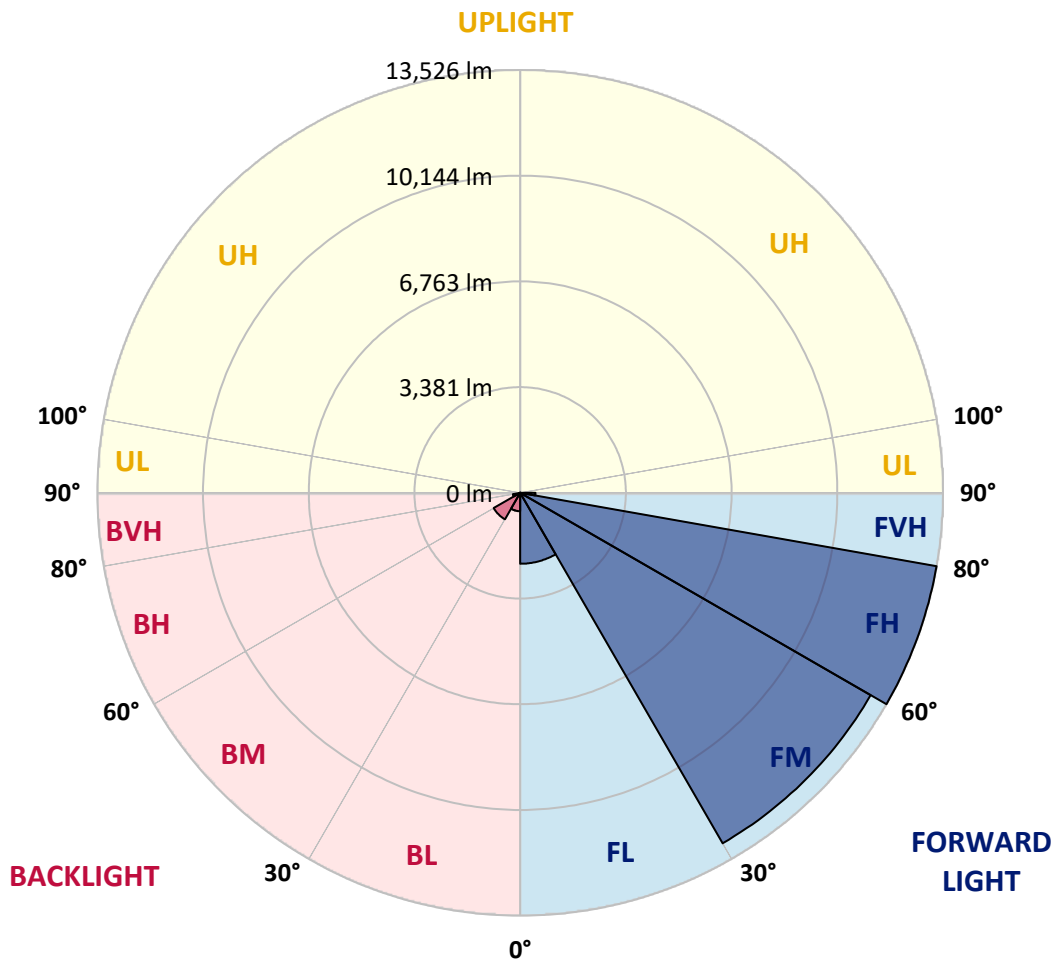
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2270.5	7.3			
FM	(30°-60°)	12944.9	41.7			
FH	(60°-80°)	13525.7	43.6			G5
FVH	(80°-90°)	490.2	1.6			G3/500
BL	(0°-30°)	588.4	1.9	B2/1000		
BM	(30°-60°)	976.3	3.1	B1/1000		
BH	(60°-80°)	235.9	0.8	B1/500		G1/500
BVH	(80°-90°)	15.9	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°	4638.7	4638.7	4638.7	4638.7	4638.7	4638.7	4638.7	4638.7	4638.7	4638.7	4638.7
2.5°	5093.3	5065.6	5049.0	5026.8	4999.1	4975.0	4965.8	4897.4	4832.7	4744.0	4642.4
5°	5187.6	5178.3	5148.8	5119.2	5085.9	5049.0	5028.6	4947.3	4854.9	4725.5	4548.1
7.5°	5196.8	5185.7	5148.8	5108.1	5061.9	5017.5	4982.4	4901.1	4816.1	4684.9	4468.7
10°	5182.0	5169.1	5141.4	5097.0	5039.7	4997.2	4962.1	4884.5	4812.4	4694.1	4453.9
12.5°	5165.4	5152.5	5139.5	5117.3	5067.4	5037.9	5008.3	4934.4	4869.7	4769.9	4507.5
15°	5182.0	5174.6	5189.4	5180.2	5152.5	5126.6	5097.0	5030.5	4971.3	4888.2	4605.4
17.5°	5252.2	5252.2	5298.5	5304.0	5278.1	5241.2	5198.7	5132.1	5082.2	5012.0	4721.9
20°	5416.7	5411.2	5470.3	5481.4	5418.6	5361.3	5298.5	5217.1	5178.3	5134.0	4836.4
22.5°	5699.5	5673.6	5708.7	5697.6	5573.8	5485.1	5407.5	5307.7	5287.4	5267.0	4963.9
25°	6067.3	6052.5	6076.5	5967.5	5749.4	5629.3	5536.9	5424.1	5424.1	5444.5	5108.1
27.5°	6601.3	6545.9	6464.6	6272.4	5945.3	5791.9	5692.1	5572.0	5603.4	5679.2	5298.5
30°	7148.4	7087.4	6900.7	6605.0	6183.7	6022.9	5906.5	5780.8	5854.7	5993.3	5553.5
32.5°	7688.0	7619.6	7355.4	6982.1	6525.6	6364.8	6252.1	6113.5	6237.3	6470.1	5926.8
35°	8211.0	8150.0	7845.1	7405.3	6980.2	6847.1	6743.7	6623.5	6782.5	7107.7	6453.5
37.5°	8798.7	8732.2	8360.7	7883.9	7532.8	7436.7	7360.9	7240.8	7518.0	7994.8	7187.2
40°	9521.3	9408.6	8907.8	8432.8	8172.2	8126.0	8074.3	8057.6	8488.2	9148.0	8164.8
42.5°	10349.3	10164.5	9480.7	9011.2	8874.5	8907.8	8894.8	8968.7	9702.4	10582.1	9355.0
45°	11177.2	10938.8	10118.3	9628.5	9647.0	9763.4	9835.5	10131.2	11223.4	12226.9	10635.7
47.5°	11879.5	11644.8	10730.0	10295.7	10517.4	10746.6	10942.5	11502.5	12786.9	13845.8	11631.8
50°	12480.1	12258.3	11378.6	11029.4	11528.3	11898.0	12215.8	13045.6	14468.6	15078.5	12330.4
52.5°	12971.7	12823.8	12051.3	11870.2	12683.4	13224.9	13690.6	14684.9	15958.2	16080.2	12873.7
55°	13450.3	13345.0	12773.9	12870.0	14039.9	14777.3	15366.8	16423.9	17240.8	16915.5	13394.9
57.5°	14001.1	13905.0	13598.2	14137.8	15823.3	16751.0	17394.1	17965.2	18369.9	17769.3	13886.5
60°	14562.9	14507.4	14514.8	15546.1	17871.0	18761.7	19116.6	19264.4	19478.8	18573.2	13914.2
62.5°	15098.8	15204.2	15562.7	17113.2	19831.8	20515.6	20694.8	20840.8	20589.5	18700.7	12855.3
65°	16006.2	16178.1	17033.8	19210.8	21988.5	22720.3	22905.1	22404.3	20765.1	17052.3	10456.4
67.5°	16449.8	16764.0	18290.5	21166.1	24080.5	24893.7	24825.3	22505.9	18634.2	13003.1	6710.4
69°	16357.4	16691.9	18580.6	21764.9	24775.4	25512.8	25078.5	21262.2	15875.0	9419.7	4119.4
70°	15991.5	16329.7	18430.9	21742.7	24864.1	25448.1	24609.1	19726.4	13422.6	6887.8	2576.2
72.5°	13354.2	13646.2	16362.9	19652.5	22905.1	22430.2	20587.6	13666.6	6540.4	1875.8	580.3
75°	8220.3	8382.9	11740.9	14805.0	17299.9	16080.2	13716.5	6799.1	1949.7	530.4	321.6
77.5°	4343.0	4416.9	6427.6	8726.6	10966.5	9074.1	7030.1	2652.0	898.2	332.7	232.9
80°	2567.0	2622.4	3461.5	3990.0	4745.9	3964.1	2810.9	1628.2	643.1	208.8	207.0
82.5°	1469.2	1504.3	2509.7	2217.7	1870.3	1596.7	1399.0	1543.1	386.2	140.5	214.4
85°	539.6	547.0	1411.9	1687.3	1112.5	661.6	694.9	1278.9	103.5	88.7	168.2
87.5°	251.3	245.8	726.3	1033.1	650.5	419.5	541.5	280.9	40.7	57.3	46.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P301840

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4638.7	4638.7	4638.7	4638.7	4638.7	4638.7	4638.7	4638.7	4638.7	4638.7	4638.7
2.5°	4583.2	4514.9	4391.0	4263.5	4134.2	4034.4	3936.4	3858.8	3832.9	3784.9	3788.6
5°	4442.8	4317.1	4058.4	3796.0	3522.4	3297.0	3084.4	2912.6	2829.4	2744.4	2744.4
7.5°	4320.8	4137.9	3733.1	3306.2	2864.5	2493.1	2158.6	1907.2	1768.6	1657.7	1655.9
10°	4274.6	4027.0	3461.5	2849.7	2234.3	1728.0	1330.6	1075.6	944.4	859.4	855.7
12.5°	4294.9	3988.2	3252.6	2428.4	1655.9	1110.7	770.7	606.2	550.7	524.9	524.9
15°	4354.1	3977.1	3043.8	2016.3	1169.8	694.9	511.9	467.6	463.9	463.9	463.9
17.5°	4426.2	3980.8	2829.4	1615.2	796.5	497.1	441.7	436.1	439.8	439.8	439.8
20°	4500.1	3982.6	2598.4	1243.8	561.8	432.5	415.8	414.0	417.7	417.7	419.5
22.5°	4590.6	3991.9	2367.4	929.6	463.9	408.4	395.5	395.5	397.3	397.3	395.5
25°	4694.1	4010.3	2127.1	689.3	423.2	391.8	380.7	378.9	380.7	378.9	377.0
27.5°	4823.5	4036.2	1859.2	539.6	404.7	375.2	365.9	365.9	364.1	362.2	360.4
30°	4986.1	4065.8	1557.9	458.3	386.2	360.4	351.1	349.3	347.4	343.7	343.7
32.5°	5233.8	4130.5	1260.4	415.8	365.9	340.0	332.7	332.7	329.0	325.3	323.4
35°	5614.5	4258.0	994.3	389.9	343.7	317.9	308.6	308.6	304.9	303.1	301.2
37.5°	6141.2	4452.0	772.5	365.9	321.6	293.8	284.6	282.8	279.1	275.4	273.5
40°	6841.6	4692.3	608.0	343.7	299.4	269.8	262.4	258.7	251.3	245.8	245.8
42.5°	7721.3	4965.8	493.4	319.7	273.5	247.6	242.1	236.6	223.6	218.1	216.2
45°	8641.6	5211.6	417.7	292.0	247.6	225.5	221.8	212.5	195.9	190.4	190.4
47.5°	9305.1	5268.9	367.8	266.1	223.6	201.4	199.6	183.0	168.2	164.5	162.6
50°	9719.1	5156.1	327.1	240.3	201.4	179.3	173.7	153.4	144.2	140.5	138.6
52.5°	9998.1	4954.7	293.8	218.1	181.1	158.9	146.0	131.2	123.8	120.1	120.1
55°	10221.7	4670.1	260.6	197.7	164.5	142.3	123.8	112.7	105.3	101.6	101.6
57.5°	10284.6	4283.9	227.3	181.1	147.8	125.7	105.3	97.9	88.7	86.9	86.9
60°	9828.1	3587.1	201.4	160.8	133.1	109.0	92.4	83.2	73.9	72.1	70.2
62.5°	8625.0	2775.8	177.4	142.3	116.4	94.3	79.5	68.4	61.0	61.0	61.0
65°	6579.2	1861.0	155.2	123.8	101.6	79.5	68.4	55.4	51.7	51.7	53.6
67.5°	3938.3	1012.7	133.1	105.3	86.9	66.5	57.3	48.1	46.2	48.1	48.1
69°	2308.3	595.1	120.1	94.3	75.8	59.1	49.9	42.5	46.2	48.1	48.1
70°	1424.9	401.0	110.9	85.0	68.4	53.6	46.2	40.7	44.4	46.2	46.2
72.5°	397.3	207.0	88.7	66.5	55.4	44.4	37.0	37.0	42.5	44.4	44.4
75°	258.7	153.4	68.4	49.9	42.5	35.1	31.4	35.1	40.7	42.5	42.5
77.5°	214.4	125.7	55.4	40.7	35.1	33.3	29.6	31.4	37.0	38.8	38.8
80°	195.9	88.7	44.4	37.0	31.4	29.6	27.7	25.9	33.3	35.1	35.1
82.5°	186.7	70.2	38.8	33.3	29.6	25.9	24.0	25.9	29.6	31.4	33.3
85°	116.4	46.2	35.1	31.4	25.9	24.0	24.0	24.0	27.7	29.6	29.6
87.5°	42.5	37.0	31.4	25.9	22.2	22.2	22.2	22.2	24.0	27.7	27.7
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)