

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: P647388

Luminaire Tested: **GALN-SA4D-835-U-SL4**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P647388  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-18)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GALN-SA4D-835-U-SL4  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 80 CRI, 3500K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV  
SPILL LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 23454.8 lumens  
Efficiency: N/A  
Efficacy: 95.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G4

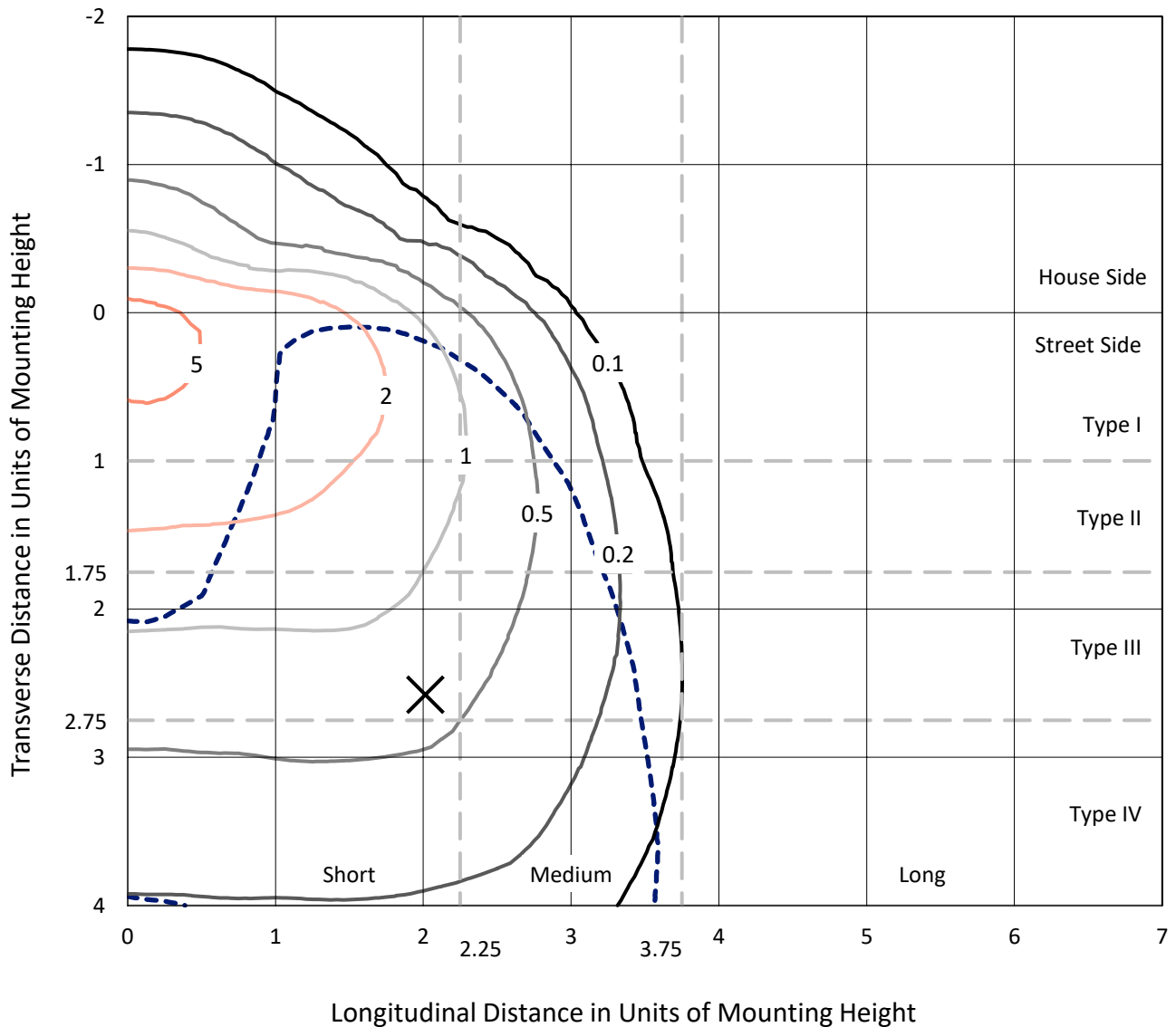
Input Watts (W): 245  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

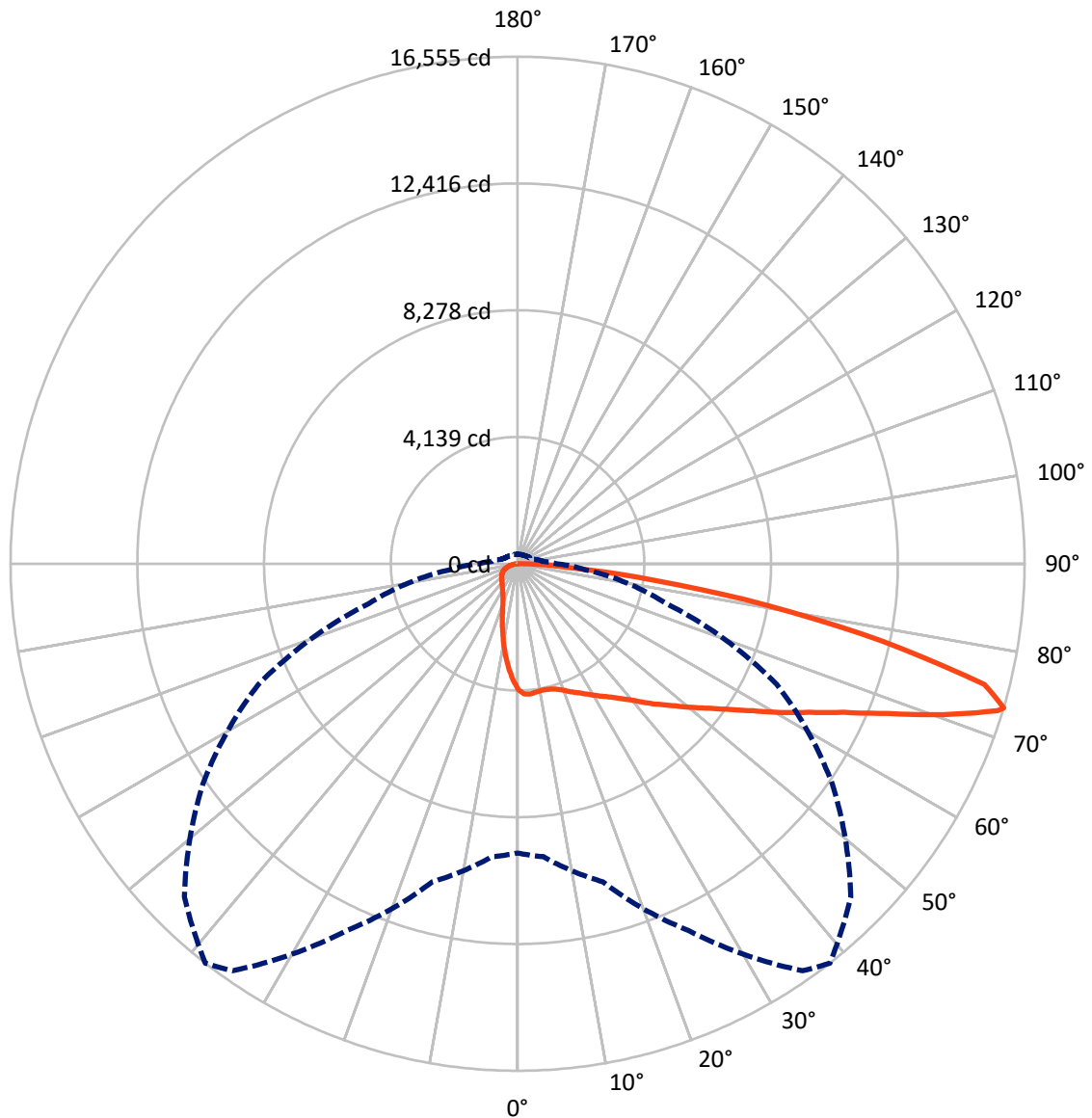
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.7 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral    - - - Horizontal Cone Through 73-Deg Vertical

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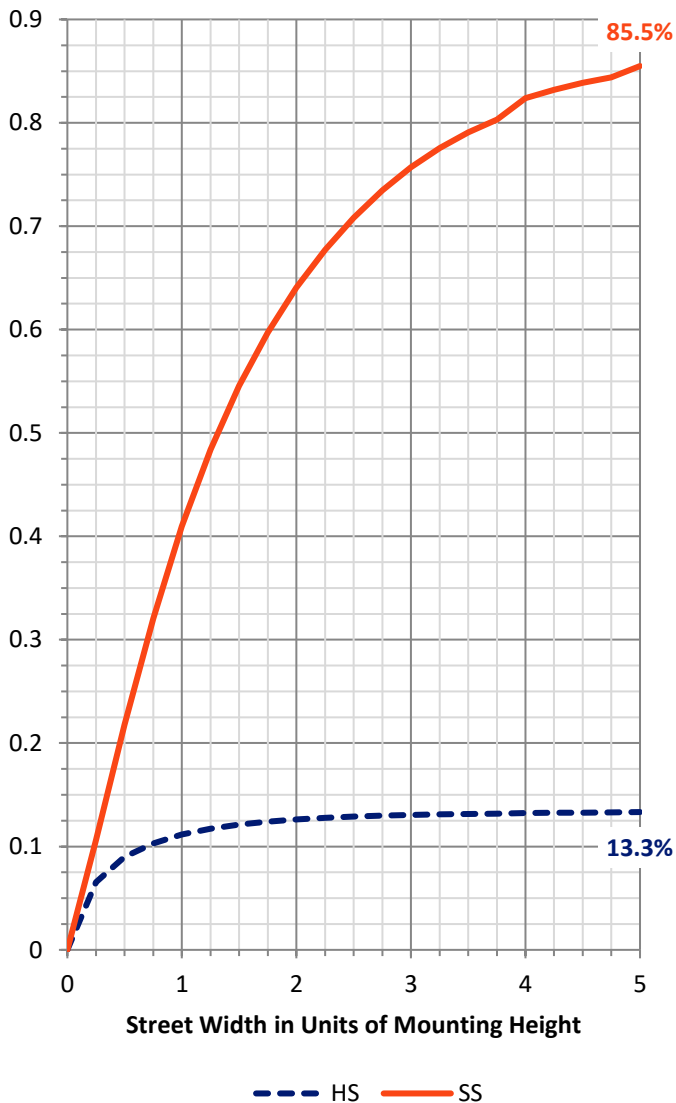
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3153.0	0.0	3153.0
	% Fixture	13.4	0.0	13.4
<b>Street Side</b>	Lumens	20301.7	0.0	20301.7
	% Fixture	86.6	0.0	86.6
<b>Total</b>	Lumens	23454.8	0.0	23454.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	359.7	1.5
10°-20°	922.3	3.9
20°-30°	1436.3	6.1
30°-40°	2106.7	9.0
40°-50°	3125.0	13.3
50°-60°	4427.5	18.9
60°-70°	5616.4	23.9
70°-80°	4675.3	19.9
80°-90°	785.5	3.3
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°	23454.8	100.0
0°-180°	23454.8	100.0



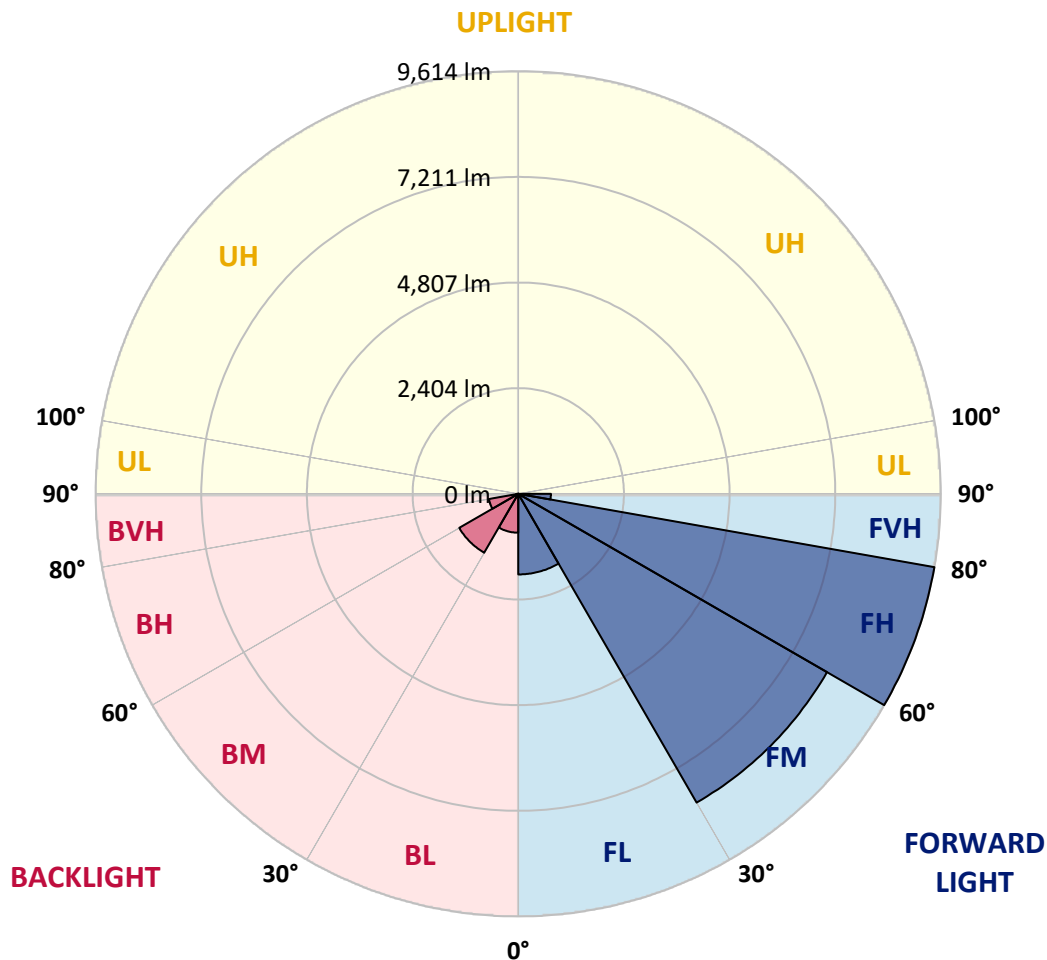
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1833.5	7.8			
FM (30°-60°)	8111.3	34.6			
FH (60°-80°)	9614.0	41.0			G4/12000
FVH (80°-90°)	742.9	3.2			G4/750
BL (0°-30°)	884.8	3.8	B2/1000		
BM (30°-60°)	1547.9	6.6	B2/2500		
BH (60°-80°)	677.7	2.9	B2/1000		G2/1000
BVH (80°-90°)	42.6	0.2			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°	38°	45°	55°	65°	75°	85°
0°	4120.6	4120.6	4120.6	4120.6	4120.6	4120.6	4120.6	4120.6	4120.6	4120.6	4120.6
2.5°	4286.1	4307.4	4296.8	4282.2	4272.9	4263.7	4250.4	4212.0	4181.5	4148.4	4096.7
5°	4317.9	4331.2	4321.9	4303.4	4282.2	4272.9	4247.8	4197.4	4148.4	4092.8	4015.9
7.5°	4299.5	4304.7	4294.1	4271.6	4253.0	4235.9	4206.7	4151.1	4091.5	4023.9	3923.2
10°	4233.2	4253.0	4253.0	4234.5	4216.0	4206.7	4177.5	4124.6	4070.3	3993.5	3874.2
12.5°	4178.9	4200.1	4217.3	4212.0	4210.7	4210.7	4188.2	4148.4	4084.8	4012.0	3870.3
15°	4141.8	4167.0	4204.1	4225.2	4238.5	4242.5	4233.2	4198.8	4133.8	4049.0	3886.2
17.5°	4133.8	4164.3	4231.9	4278.2	4312.7	4311.4	4308.7	4261.0	4189.4	4102.1	3906.0
20°	4169.6	4209.3	4303.4	4376.3	4426.5	4417.3	4402.7	4340.5	4257.0	4159.0	3924.6
22.5°	4276.9	4317.9	4421.3	4500.8	4549.8	4549.8	4506.0	4424.0	4335.2	4225.2	3949.8
25°	4430.5	4475.5	4585.5	4666.3	4688.8	4671.6	4627.9	4528.6	4426.5	4320.6	4002.7
27.5°	4618.6	4672.9	4774.9	4842.5	4835.9	4822.6	4777.6	4650.4	4548.4	4451.7	4092.8
30°	4853.0	4892.8	4998.8	5014.6	4990.8	4988.2	4924.6	4797.4	4702.1	4627.9	4221.2
32.5°	5074.2	5110.0	5194.8	5201.4	5159.0	5164.4	5104.7	4988.2	4933.8	4907.4	4437.2
35°	5308.7	5327.2	5400.1	5392.1	5364.3	5360.3	5336.5	5225.3	5242.5	5290.2	4743.1
37.5°	5504.7	5541.8	5582.9	5589.5	5588.2	5601.4	5617.3	5564.3	5663.7	5813.4	5144.5
40°	5684.9	5716.7	5777.6	5798.8	5850.4	5877.0	5931.2	5932.6	6161.7	6408.1	5638.5
42.5°	5806.7	5861.1	5974.9	6013.4	6139.2	6218.7	6299.5	6385.5	6718.0	7034.6	6221.3
45°	5912.7	5984.2	6173.6	6292.8	6463.7	6560.4	6731.2	6911.4	7389.6	7804.1	6813.4
47.5°	6072.9	6136.5	6353.7	6564.4	6822.7	6933.9	7189.5	7458.4	8083.6	8537.9	7380.2
50°	6295.5	6333.9	6555.1	6898.2	7228.0	7371.0	7708.7	8096.8	8825.3	9262.4	7878.3
52.5°	6580.3	6596.1	6772.3	7229.3	7663.7	7841.2	8288.9	8741.9	9474.4	9891.6	8273.0
55°	6916.7	6890.2	7028.0	7580.3	8161.8	8393.5	8874.4	9394.9	10204.1	10400.2	8560.4
57.5°	7249.2	7208.1	7318.0	8006.8	8776.3	9055.8	9616.1	10067.7	10855.8	10875.7	8761.8
60°	7601.4	7571.0	7702.1	8507.5	9530.0	9861.1	10379.0	10765.8	11486.3	11206.8	8793.6
62.5°	7963.0	7914.0	8100.8	9070.4	10379.0	10679.7	11181.6	11507.5	12104.9	11330.0	8487.6
65°	8314.1	8291.6	8580.3	9739.3	11345.9	11687.6	12175.0	12396.2	12600.2	11144.6	7728.6
67.5°	8687.5	8732.6	9193.5	10632.0	12606.8	13036.0	13561.9	13353.9	12741.9	10266.4	6508.8
70°	9257.1	9286.2	9998.8	11801.5	14232.0	14749.9	15004.2	13694.3	12058.5	8598.8	4892.8
72.5°	9502.2	9630.7	10718.1	13029.4	16078.4	16395.0	15489.0	12935.3	10045.2	5841.2	2570.9
73°	9447.8	9601.5	10751.2	13216.1	16222.8	16555.3	15385.7	12544.6	9337.9	5030.5	2204.0
75°	8771.0	8960.4	10320.7	13059.8	15942.0	15743.3	13724.7	10691.6	6310.0	2287.5	1004.0
77.5°	6920.6	6975.0	8177.7	10545.9	12553.8	12185.7	10271.7	6682.3	2577.6	850.3	569.6
80°	3471.6	3671.6	4609.4	6041.2	8394.9	8274.4	6483.6	3160.3	1074.2	499.3	377.5
82.5°	1670.2	1811.9	2245.1	2945.7	4638.5	4528.6	3210.7	1727.2	682.1	291.4	222.5
85°	1075.5	1181.5	1429.1	1405.3	1907.3	1821.3	1442.4	1307.3	403.9	152.3	155.0
87.5°	709.9	777.5	932.5	745.7	694.1	627.8	637.1	736.4	79.5	58.3	21.2
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°	4120.6	4120.6	4120.6	4120.6	4120.6	4120.6	4120.6	4120.6	4120.6	4120.6	4120.6
2.5°	4075.6	4058.4	4001.4	3945.8	3892.8	3842.4	3809.4	3765.6	3736.5	3744.5	3756.4
5°	3973.6	3935.2	3834.5	3736.5	3643.8	3533.8	3445.1	3373.6	3319.3	3299.4	3295.4
7.5°	3866.3	3801.4	3657.0	3488.8	3331.2	3194.8	3037.2	2959.0	2867.6	2835.8	2825.2
10°	3801.4	3714.0	3511.3	3276.9	3039.8	2813.3	2642.5	2503.3	2377.5	2353.7	2341.8
12.5°	3782.8	3667.7	3394.8	3092.8	2777.5	2499.4	2246.4	2063.6	1941.8	1914.0	1872.9
15°	3772.3	3629.2	3286.2	2907.4	2507.3	2168.3	1902.0	1688.8	1577.5	1503.4	1504.7
17.5°	3763.0	3585.5	3164.3	2704.7	2274.2	1883.5	1589.4	1397.3	1295.4	1255.6	1251.7
20°	3749.7	3533.8	3023.9	2491.4	2008.0	1623.9	1357.6	1214.6	1145.7	1112.6	1111.3
22.5°	3744.5	3483.5	2886.1	2274.2	1772.2	1423.9	1204.0	1103.3	1059.6	1037.1	1037.1
25°	3757.7	3447.8	2741.8	2067.6	1562.9	1253.0	1098.0	1029.2	1004.0	992.1	988.1
27.5°	3798.7	3431.9	2598.7	1861.0	1370.9	1136.4	1026.5	978.8	960.3	951.0	952.4
30°	3876.9	3430.6	2458.3	1657.0	1227.8	1047.7	969.6	936.5	921.9	916.6	915.2
32.5°	4002.7	3459.7	2320.6	1488.8	1107.3	973.5	916.6	892.7	886.1	882.1	880.8
35°	4216.0	3541.8	2184.2	1335.1	1014.6	907.3	866.2	854.3	845.0	849.0	850.3
37.5°	4503.4	3683.5	2054.4	1214.6	944.4	858.3	823.9	813.2	808.0	812.0	815.9
40°	4888.8	3887.5	1945.8	1117.9	894.0	817.2	786.8	777.5	772.2	778.9	780.2
42.5°	5314.0	4123.3	1855.6	1042.4	853.0	782.8	753.6	743.1	739.1	743.1	744.4
45°	5751.1	4397.4	1809.3	988.1	818.5	757.6	727.2	715.3	706.0	703.3	707.3
47.5°	6181.6	4635.8	1807.9	954.9	790.8	735.1	702.0	688.7	676.8	670.2	668.9
50°	6532.6	4825.2	1839.7	940.4	766.9	709.9	676.8	663.6	647.7	634.5	637.1
52.5°	6797.5	4948.4	1854.3	933.8	753.6	683.5	650.4	638.5	619.9	602.7	602.7
55°	6968.3	4977.6	1818.6	927.2	743.1	655.6	619.9	609.3	590.8	573.5	573.5
57.5°	7026.6	4887.5	1690.1	911.3	732.5	631.8	589.4	580.1	565.6	548.3	545.7
60°	6891.5	4582.9	1464.9	863.6	711.3	606.7	556.3	552.3	547.0	532.4	531.1
62.5°	6371.0	3936.5	1219.9	801.3	675.5	580.1	525.9	532.4	536.4	528.5	527.2
65°	5504.7	3196.0	1042.4	715.3	627.8	543.1	492.7	510.0	520.5	520.5	517.9
67.5°	4465.0	2454.3	878.1	641.0	568.2	492.7	455.6	468.9	476.8	474.2	480.8
70°	3173.6	1662.3	715.3	556.3	492.7	435.7	407.9	407.9	402.6	400.0	400.0
72.5°	1539.1	949.7	580.1	464.9	419.8	372.2	349.7	340.4	329.8	328.5	321.9
73°	1286.1	851.7	553.7	447.7	402.6	362.9	337.8	323.2	316.6	311.2	309.9
75°	782.8	646.4	462.3	377.5	343.0	312.6	290.1	276.8	270.2	266.2	264.9
77.5°	515.2	482.1	358.9	288.8	262.2	243.7	234.4	221.2	217.2	212.0	212.0
80°	384.1	368.2	257.0	204.0	188.1	172.2	169.5	166.9	156.3	149.7	147.0
82.5°	247.7	262.2	174.8	136.4	119.2	105.9	107.3	111.3	100.7	91.4	88.7
85°	176.2	189.4	105.9	62.2	50.3	43.7	49.0	43.7	45.0	35.8	29.1
87.5°	29.1	50.3	18.6	7.9	4.0	2.7	0.0	0.0	0.0	0.0	0.0
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)