

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: P299870

Luminaire Tested: **GLNA-AF-10-LED-E1-5WQ-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299870  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24143)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-10-LED-E1-5WQ-7030  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 59817.7 lumens  
Efficiency: N/A  
Efficacy: 107.2 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B5 - U0 - G5

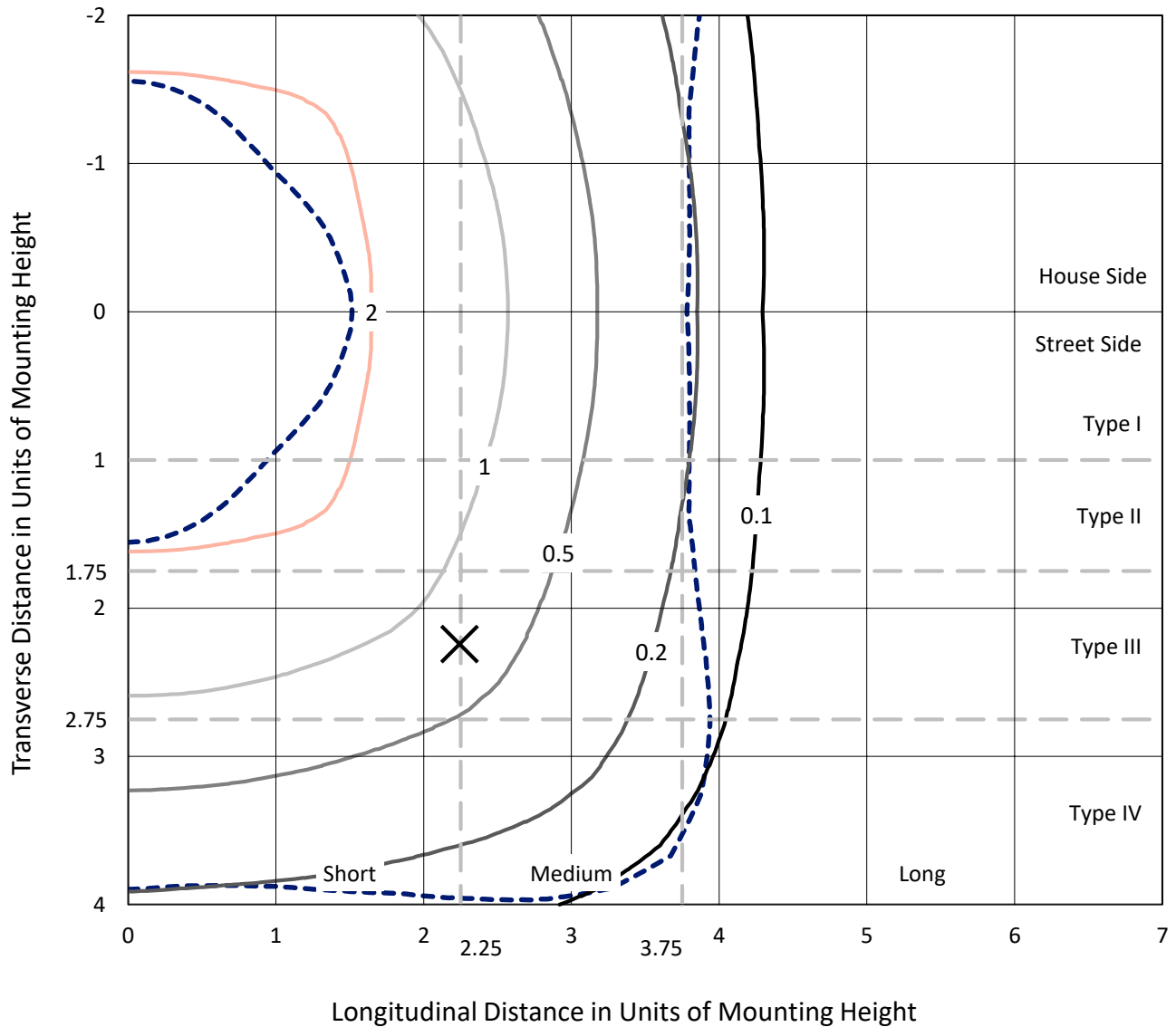
Input Watts (W): 558  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

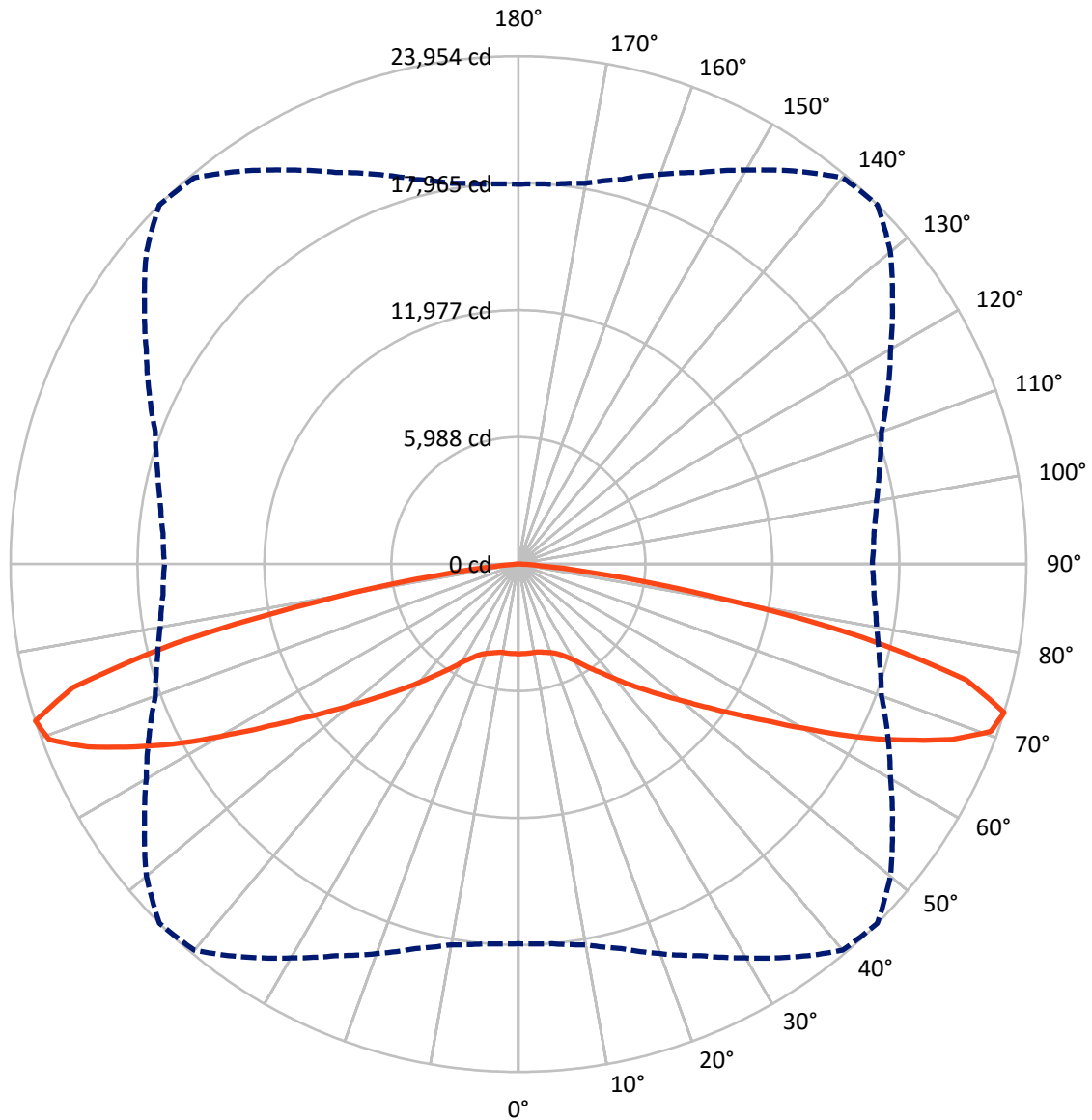
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.7 fc  
 Type V - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical

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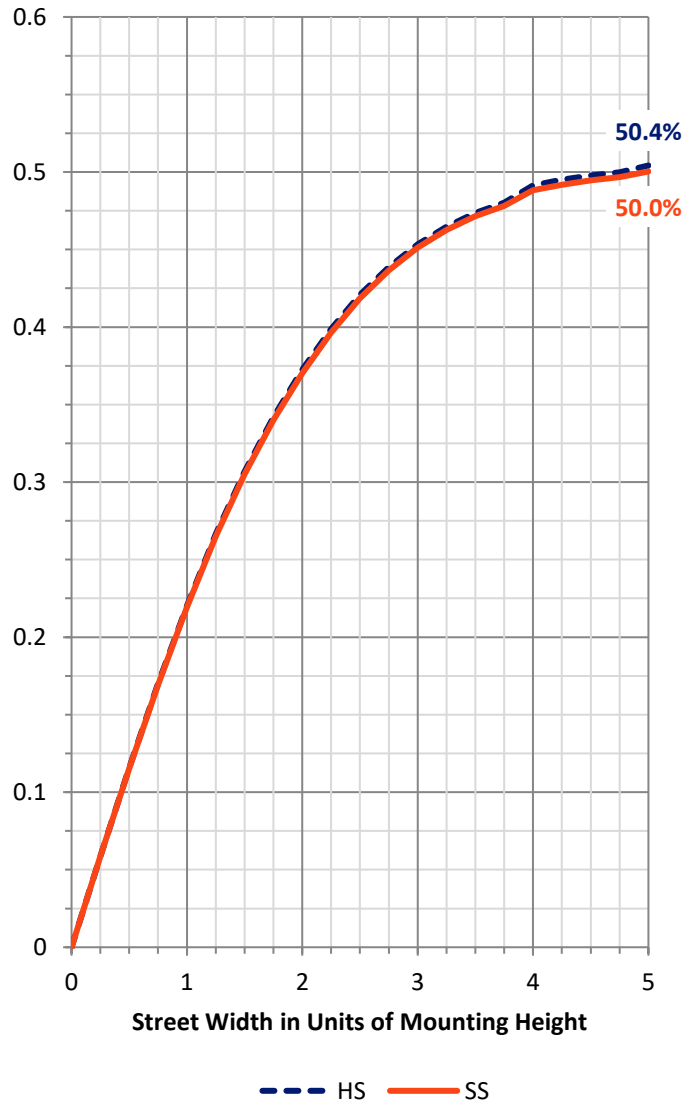
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	29908.8	0.0	29908.8
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	29908.8	0.0	29908.8
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	59817.7	0.0	59817.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	404.5	0.7
10°-20°	1228.5	2.1
20°-30°	2244.9	3.8
30°-40°	3870.7	6.5
40°-50°	6616.9	11.1
50°-60°	10725.1	17.9
60°-70°	17792.5	29.7
70°-80°	15671.0	26.2
80°-90°	1263.5	2.1
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°	59817.7	100.0
0°-180°	59817.7	100.0



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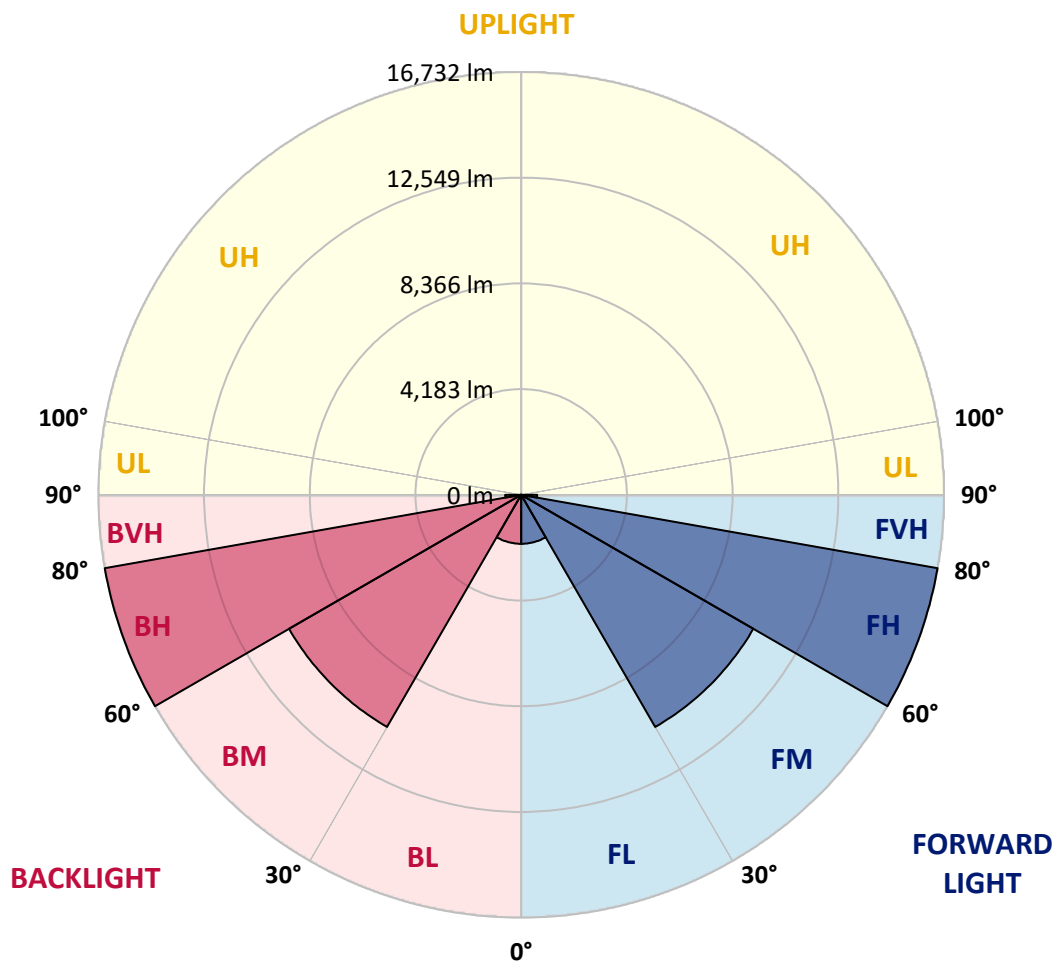
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1939.0	3.2			
FM	(30°-60°)	10606.3	17.7			
FH	(60°-80°)	16731.8	28.0			G5
FVH	(80°-90°)	631.8	1.1			G4/750
BL	(0°-30°)	1939.0	3.2	B3/2500		
BM	(30°-60°)	10606.3	17.7	B5		
BH	(60°-80°)	16731.8	28.0	B5		G5
BVH	(80°-90°)	631.8	1.1			G4/750
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G5**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	4236.0	4236.0	4236.0	4236.0	4236.0	4236.0	4236.0	4236.0	4236.0	4236.0	4236.0
2.5°	4236.0	4238.8	4241.5	4238.8	4238.8	4236.0	4233.3	4236.0	4233.3	4227.8	4230.5
5°	4249.7	4255.2	4255.2	4249.7	4252.5	4249.7	4244.3	4247.0	4241.5	4233.3	4233.3
7.5°	4266.2	4268.9	4268.9	4263.5	4266.2	4260.7	4255.2	4252.5	4247.0	4236.0	4227.8
10°	4290.9	4293.6	4290.9	4285.4	4285.4	4277.2	4263.5	4258.0	4247.0	4230.5	4222.3
12.5°	4318.3	4321.1	4318.3	4312.8	4310.1	4296.4	4285.4	4277.2	4268.9	4255.2	4241.5
15°	4356.7	4362.2	4356.7	4345.8	4337.5	4326.6	4321.1	4323.8	4326.6	4315.6	4301.9
17.5°	4428.1	4430.8	4422.6	4397.9	4386.9	4375.9	4375.9	4381.4	4389.7	4384.2	4370.5
20°	4559.8	4551.5	4532.3	4502.1	4488.4	4469.2	4466.5	4469.2	4469.2	4466.5	4455.5
22.5°	4724.4	4718.9	4694.2	4655.8	4636.6	4625.6	4609.1	4595.4	4592.7	4584.4	4573.5
25°	4921.9	4919.2	4889.0	4856.1	4842.3	4828.6	4814.9	4795.7	4779.2	4760.0	4749.1
27.5°	5174.3	5163.3	5119.4	5103.0	5083.8	5075.5	5056.3	5034.4	5020.7	4996.0	4982.3
30°	5451.4	5451.4	5415.7	5410.3	5410.3	5391.0	5369.1	5330.7	5306.0	5281.3	5273.1
32.5°	5728.5	5731.2	5695.6	5706.6	5714.8	5728.5	5734.0	5720.3	5703.8	5701.1	5684.6
35°	6129.1	6118.1	6082.4	6090.7	6087.9	6085.2	6085.2	6115.3	6120.8	6126.3	6093.4
37.5°	6625.6	6625.6	6590.0	6590.0	6573.5	6557.1	6535.1	6554.3	6584.5	6592.7	6570.8
40°	7193.6	7212.8	7168.9	7166.1	7171.6	7119.5	7094.8	7125.0	7144.2	7177.1	7152.4
42.5°	7863.0	7849.3	7805.4	7799.9	7769.7	7753.2	7731.3	7756.0	7786.2	7808.1	7816.3
45°	8505.0	8494.0	8444.6	8444.6	8414.4	8400.7	8411.7	8452.8	8466.6	8496.7	8526.9
47.5°	9138.7	9125.0	9092.1	9105.8	9108.5	9133.2	9168.9	9207.3	9245.7	9286.9	9300.6
50°	9786.2	9788.9	9753.3	9786.2	9827.3	9895.9	9992.0	10055.1	10134.6	10186.8	10203.2
52.5°	10376.1	10387.0	10425.4	10502.3	10584.6	10719.0	10883.6	11037.2	11168.9	11256.7	11251.2
55°	11083.9	11100.3	11193.6	11325.3	11459.8	11662.8	11906.9	12178.6	12398.0	12524.2	12444.7
57.5°	11989.3	12024.9	12129.2	12307.5	12507.8	12771.2	13105.9	13514.7	13854.9	14025.0	13896.0
60°	13232.1	13254.0	13380.2	13577.8	13819.2	14145.7	14592.9	15141.6	15621.7	15846.7	15698.5
62.5°	14870.0	14911.1	15012.6	15212.9	15459.8	15830.2	16376.2	17062.1	17660.1	17972.9	17638.2
65°	16826.1	16957.8	17042.8	17245.9	17476.3	17868.7	18439.3	19174.6	19816.6	20022.3	19635.5
67.5°	18763.0	18878.3	19026.4	19259.6	19492.8	19934.5	20464.0	21177.4	21882.4	22069.0	21468.2
70°	19610.8	19676.6	19907.1	20225.4	20672.5	21193.8	21805.6	22606.7	23479.2	23632.8	22870.1
72.5°	17912.5	17978.4	18236.3	18776.8	19555.9	20384.5	21451.7	22628.7	23781.0	23953.8	22903.0
75°	13547.6	13440.6	13821.9	14538.0	15588.8	16743.8	18236.3	19923.6	21588.9	21805.6	20551.8
77.5°	7001.5	6987.8	7275.9	8164.8	9418.6	10732.7	12376.1	14282.9	15912.5	16571.0	15550.4
80°	1972.6	1994.6	2131.7	2573.4	3306.0	4255.2	5539.2	7325.2	8658.6	9339.0	8768.3
82.5°	773.7	834.0	886.2	968.5	1064.5	1204.4	1607.7	2392.4	3209.9	3835.5	3141.3
85°	277.1	296.3	419.8	496.6	504.8	532.2	606.3	707.8	853.2	1017.9	836.8
87.5°	104.3	115.2	134.4	222.2	219.5	200.3	244.2	255.1	192.0	175.6	216.7
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):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	4236.0	4236.0	4236.0	4236.0	4236.0	4236.0	4236.0	4236.0
2.5°	4225.0	4227.8	4227.8	4230.5	4233.3	4233.3	4238.8	4238.8
5°	4227.8	4227.8	4222.3	4225.0	4222.3	4222.3	4225.0	4225.0
7.5°	4222.3	4219.6	4214.1	4211.3	4205.8	4205.8	4205.8	4205.8
10°	4214.1	4211.3	4205.8	4203.1	4200.4	4200.4	4200.4	4200.4
12.5°	4236.0	4227.8	4222.3	4219.6	4219.6	4219.6	4219.6	4219.6
15°	4293.6	4274.4	4260.7	4260.7	4263.5	4268.9	4268.9	4274.4
17.5°	4365.0	4343.0	4329.3	4318.3	4323.8	4332.0	4337.5	4343.0
20°	4450.0	4439.0	4419.8	4408.9	4408.9	4419.8	4425.3	4428.1
22.5°	4568.0	4559.8	4551.5	4537.8	4537.8	4543.3	4554.3	4554.3
25°	4743.6	4738.1	4732.6	4721.6	4718.9	4718.9	4724.4	4729.9
27.5°	4963.1	4965.8	4960.3	4957.6	4949.3	4946.6	4954.8	4952.1
30°	5256.6	5270.3	5284.1	5273.1	5259.4	5251.1	5242.9	5231.9
32.5°	5654.4	5638.0	5627.0	5607.8	5583.1	5561.1	5544.7	5525.5
35°	6030.3	6002.9	5991.9	6008.3	6005.6	5991.9	5972.7	5956.2
37.5°	6491.2	6485.7	6491.2	6521.4	6515.9	6529.6	6491.2	6488.5
40°	7072.8	7078.3	7116.7	7152.4	7171.6	7190.8	7168.9	7146.9
42.5°	7747.7	7745.0	7758.7	7808.1	7841.0	7863.0	7816.3	7810.8
45°	8461.1	8441.9	8452.8	8494.0	8526.9	8551.6	8499.5	8499.5
47.5°	9245.7	9212.8	9177.1	9223.8	9243.0	9259.4	9218.3	9204.6
50°	10120.9	10052.3	9975.5	9994.7	9994.7	9989.2	9937.1	9934.3
52.5°	11125.0	10998.8	10858.9	10806.8	10776.6	10743.7	10653.2	10609.3
55°	12280.1	12090.8	11871.3	11736.8	11665.5	11575.0	11424.1	11382.9
57.5°	13629.9	13333.6	12955.0	12790.4	12631.2	12483.1	12315.7	12269.1
60°	15229.4	14793.1	14291.1	13986.5	13813.7	13671.0	13498.2	13490.0
62.5°	17012.7	16324.0	15756.1	15481.8	15355.6	15229.4	15064.8	15086.7
65°	18826.1	18107.3	17575.1	17352.9	17234.9	17130.6	16966.0	16990.7
67.5°	20614.9	19953.7	19369.4	19141.7	19010.0	18878.3	18730.1	18754.8
70°	21898.9	21078.6	20420.1	19915.3	19599.8	19243.2	19012.7	18955.1
72.5°	21531.3	20266.5	19221.2	18219.8	17632.7	17155.3	16831.6	16691.7
75°	18634.1	16905.7	15561.3	14332.2	13640.9	13078.4	12669.7	12414.5
77.5°	13838.4	11896.0	10307.5	8891.8	7772.4	7020.7	6491.2	6148.3
80°	7574.9	5761.4	4211.3	2960.3	2175.6	1808.0	1596.7	1495.2
82.5°	2359.4	1522.7	1122.1	968.5	899.9	861.5	798.4	696.9
85°	751.7	658.4	611.8	584.4	556.9	485.6	334.7	304.5
87.5°	290.8	299.0	296.3	279.8	285.3	205.8	164.6	145.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)