

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: P591369

Luminaire Tested: **CTN-CA8-330-730-U-T4-SSS-HM-EX180**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591369  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-12)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA8-330-730-U-T4-SSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (8) 3000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 21131 lumens  
Efficiency: N/A  
Efficacy: 63.7 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G3

Input Watts (W): 331.5  
Input Voltage (V): 120  
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

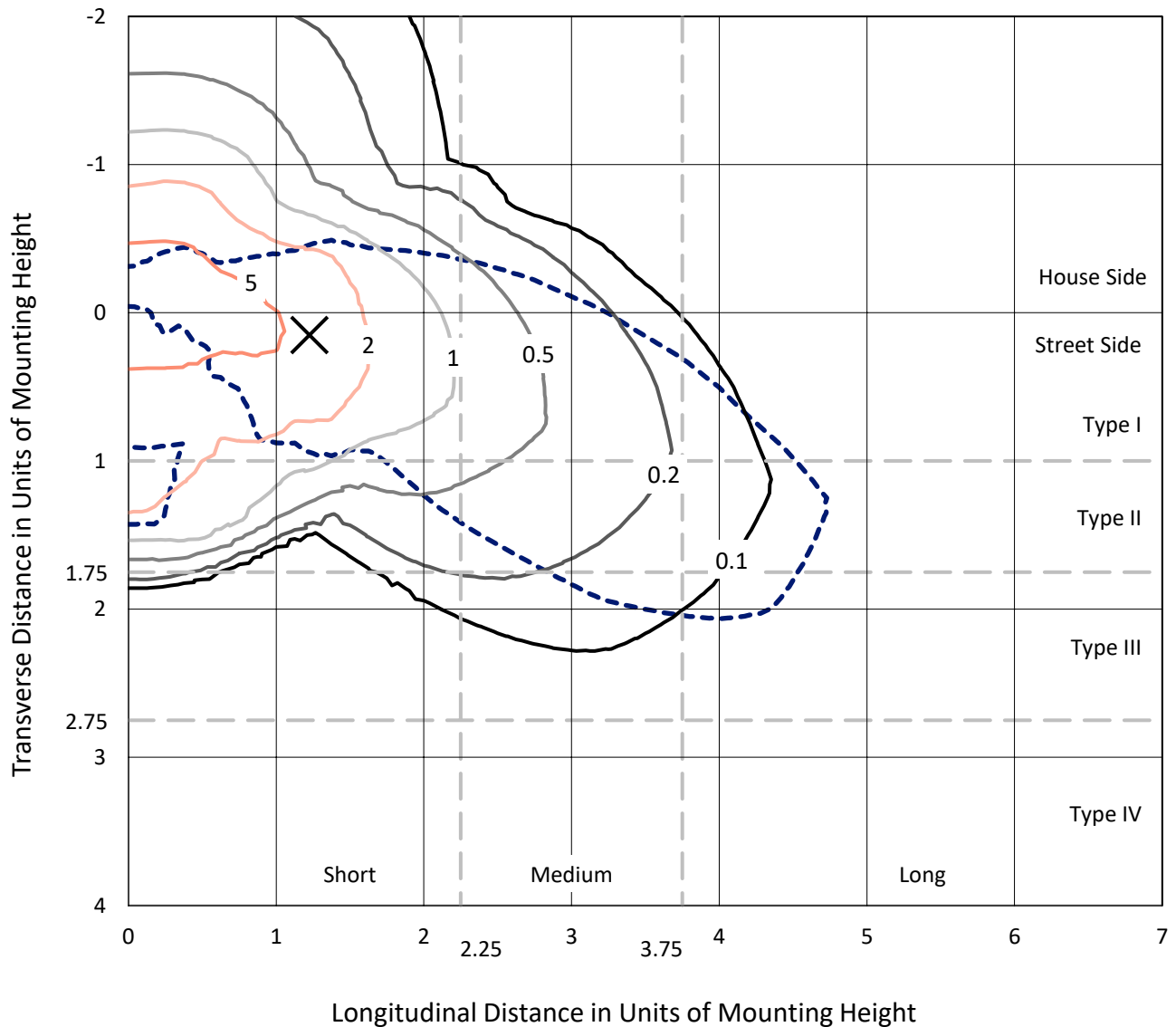




REPORT NUMBER: P591369  
 CATALOG NUMBER: CTN-CA8-330-730-U-T4-SSS-HM-EX180

### Iso-Footcandle Lines of Horizontal Illumination

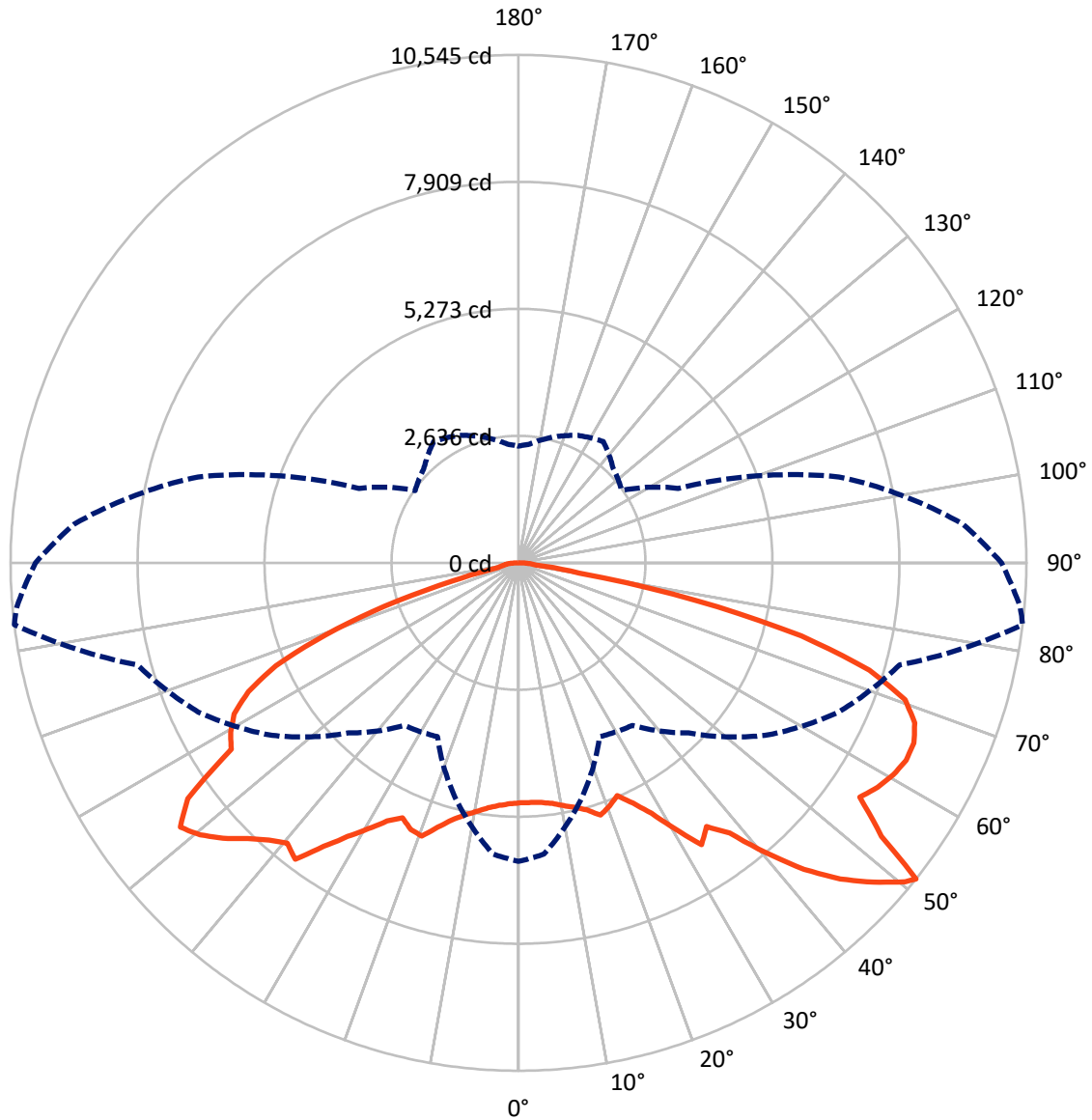
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.5 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 83-Deg Lateral      - - - Horizontal Cone Through 51-Deg Vertical

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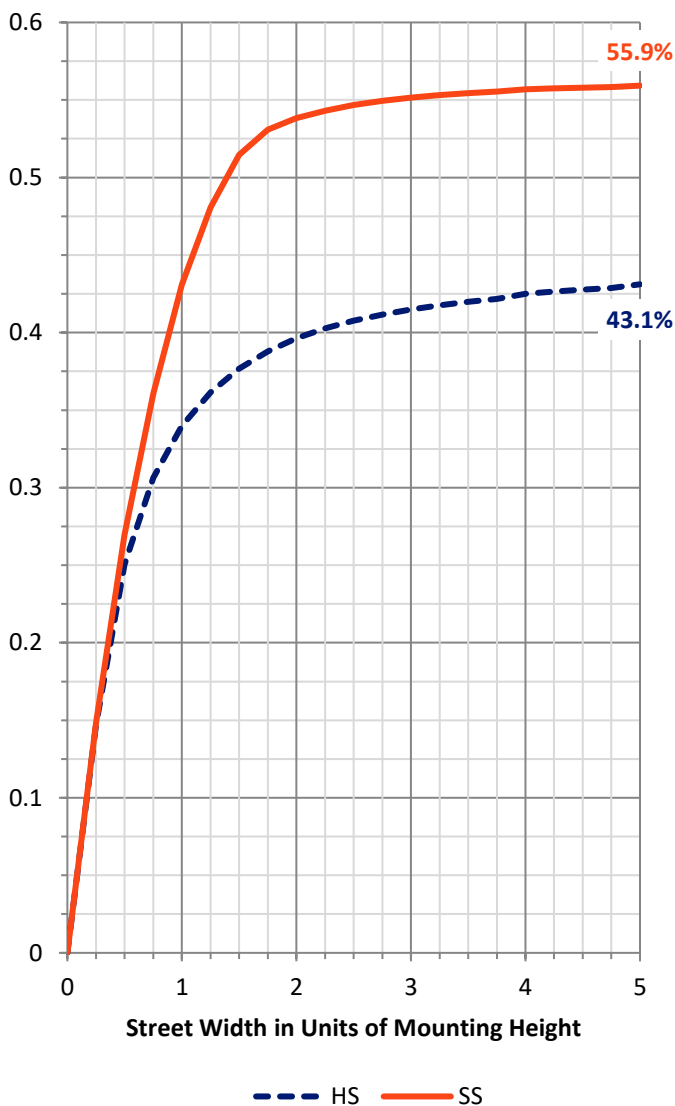
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	9313.6	0.0	9313.6
	% Fixture	44.1	0.0	44.1
<b>Street Side</b>	Lumens	11817.4	0.0	11817.4
	% Fixture	55.9	0.0	55.9
<b>Total</b>	Lumens	21131.0	0.0	21131.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	486.5	2.3
10°-20°	1480.7	7.0
20°-30°	2300.1	10.9
30°-40°	3077.7	14.6
40°-50°	3992.9	18.9
50°-60°	4252.6	20.1
60°-70°	2962.4	14.0
70°-80°	2066.8	9.8
80°-90°	511.3	2.4
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°	21131.0	100.0
0°-180°	21131.0	100.0

**Coefficient of Utilization**



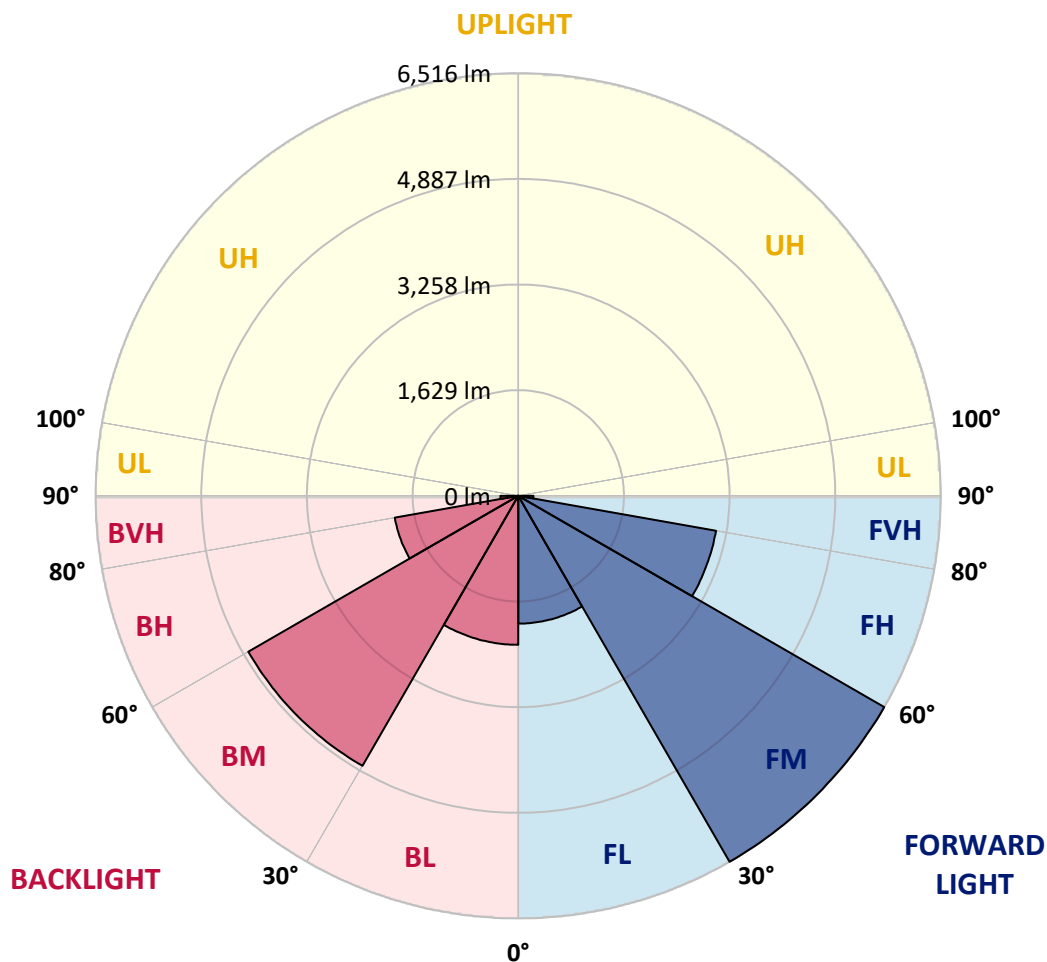
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 CATALOG NUMBER: CTN-CA8-330-730-U-T4-SSS-HM-EX180

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1970.3	9.3			
FM (30°-60°)	6516.2	30.8			
FH (60°-80°)	3096.2	14.7			G2/5000
FVH (80°-90°)	234.8	1.1			G3/500
BL (0°-30°)	2297.1	10.9	B3/2500		
BM (30°-60°)	4807.0	22.7	B3/5000		
BH (60°-80°)	1933.0	9.1	B3/2500		G3/2500
BVH (80°-90°)	276.6	1.3			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	83°	85°
0°	4980.6	4980.6	4980.6	4980.6	4980.6	4980.6	4980.6	4980.6	4980.6	4980.6	4980.6
2.5°	4921.2	4887.1	4890.0	4936.1	4875.2	4915.3	4909.3	4980.6	4967.3	4982.1	4992.5
5°	4878.1	4851.4	4851.4	4912.3	4869.2	4912.3	4882.6	4945.0	4965.8	4998.5	5010.3
7.5°	4887.1	4858.8	4870.7	4924.2	4876.7	4921.2	4919.7	4979.2	4986.6	5044.5	5063.8
10°	4912.3	4881.1	4887.1	4930.1	4903.4	4980.6	4967.3	5049.0	5049.0	5126.2	5155.9
12.5°	4860.3	4839.5	4851.4	4909.3	4933.1	5013.3	5031.1	5114.3	5126.2	5209.4	5246.5
15°	4803.9	4774.2	4812.8	4896.0	4936.1	5051.9	5090.6	5218.3	5236.1	5322.3	5363.9
17.5°	4530.6	4511.2	4582.5	4649.4	4671.7	4784.6	4860.3	5072.7	5328.2	5508.0	5557.0
20°	3986.9	3983.9	3851.7	3823.5	4169.6	4582.5	4634.5	4815.8	5111.4	5392.1	5491.6
22.5°	3328.8	3418.0	3847.3	3983.9	3975.0	4138.4	4803.9	4974.7	5105.4	5248.0	5307.4
25°	3328.8	3321.4	3575.4	4163.7	4165.1	4235.0	4383.5	5239.1	5363.9	5527.3	5574.8
27.5°	3434.3	3441.7	3425.4	3854.7	4370.1	4435.5	4499.4	4942.0	5707.0	5888.2	5967.0
30°	3612.6	3624.4	3559.1	3560.6	4438.5	4634.5	4756.3	4930.1	5946.2	6411.1	6446.8
32.5°	3964.6	3960.1	3878.4	3773.0	3894.8	4829.1	5007.4	5233.2	5568.9	6975.6	7058.7
35°	4245.4	4226.0	4169.6	4096.8	3936.4	4774.2	5246.5	5558.5	5986.3	6724.5	7164.2
37.5°	4557.3	4529.1	4465.2	4376.1	4230.5	3331.8	5482.7	5929.8	6593.8	7118.2	7146.4
40°	4909.3	4878.1	4790.5	4659.8	4474.1	3413.5	5588.2	6388.8	7385.5	7912.9	7908.4
42.5°	5179.7	5148.5	5102.4	4964.3	3933.4	3765.6	4873.7	7033.5	8242.6	8700.1	8661.5
45°	5408.4	5381.7	5386.2	5240.6	3689.8	4197.8	5429.2	7370.7	9050.7	9362.6	9312.1
47.5°	5586.7	5545.1	5432.2	4408.7	3784.9	4496.4	5880.8	6428.9	9732.5	9909.3	9852.8
50°	6020.4	5950.6	5279.2	3914.1	4025.5	4861.8	6310.1	7091.4	8865.0	10406.9	10307.4
51°	6197.2	6070.9	5059.4	3982.4	4120.6	4994.0	6246.2	7332.1	8189.2	10545.0	10455.9
52.5°	6382.9	6133.3	4456.3	4086.4	4236.4	5176.7	5305.9	7701.9	8377.8	9436.9	9962.8
55°	5384.7	5482.7	4601.9	4466.7	4456.3	4474.1	5418.8	8253.0	8771.4	8593.2	8489.2
57.5°	3166.9	3224.9	4674.6	5001.4	3856.2	3553.1	5717.4	8669.0	9111.6	8790.8	8674.9
60°	1592.4	1666.6	1702.3	1552.3	2079.6	3241.2	4815.8	6283.4	9319.6	8939.3	8799.7
62.5°	69.8	115.9	46.0	50.5	84.7	1130.4	3538.3	6454.2	9494.8	9029.9	8845.7
65°	5.9	5.9	7.4	14.9	37.1	1186.9	3937.9	6690.4	9566.1	9021.0	8774.4
67.5°	1.5	1.5	3.0	10.4	26.7	1284.9	4407.3	6786.9	9569.1	8869.5	8567.9
70°	0.0	1.5	3.0	8.9	23.8	1344.3	4509.8	6767.6	9447.3	8513.0	8098.5
72.5°	0.0	0.0	1.5	7.4	20.8	1268.6	4390.9	6729.0	9031.4	7615.8	7027.6
75°	0.0	0.0	1.5	5.9	17.8	1290.8	4402.8	6295.2	7886.1	6063.5	5349.0
77.5°	0.0	0.0	1.5	5.9	16.3	1191.3	4031.4	5451.5	6232.9	3774.5	2993.1
80°	0.0	0.0	1.5	5.9	14.9	1022.0	3315.5	4255.7	3487.8	1280.4	825.9
82.5°	0.0	0.0	1.5	5.9	11.9	692.2	2202.9	2127.1	702.6	366.9	329.8
85°	0.0	0.0	1.5	4.5	8.9	412.9	1103.7	289.7	271.8	233.2	210.9
87.5°	0.0	0.0	1.5	3.0	5.9	175.3	340.2	89.1	112.9	95.1	84.7
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4980.6	4980.6	4980.6	4980.6	4980.6	4980.6	4980.6	4980.6	4980.6	4980.6	4980.6
2.5°	5001.4	5001.4	5017.8	5072.7	5066.8	5111.4	5086.1	5141.1	5145.5	5135.1	5160.4
5°	5020.7	5038.6	5093.5	5151.5	5127.7	5193.1	5224.2	5297.0	5294.1	5285.1	5314.9
7.5°	5075.7	5112.8	5167.8	5237.6	5262.9	5316.3	5319.3	5418.8	5412.9	5408.4	5438.1
10°	5167.8	5216.8	5277.7	5383.2	5368.3	5445.6	5412.9	5485.7	5484.2	5481.2	5510.9
12.5°	5262.9	5334.2	5408.4	5510.9	5509.4	5512.4	5484.2	5521.3	5513.9	5493.1	5515.4
15°	5396.6	5491.6	5594.1	5668.4	5603.0	5589.7	5527.3	5505.0	5461.9	5402.5	5420.3
17.5°	5617.9	5711.5	5842.2	5882.3	5775.3	5714.4	5545.1	5421.8	5288.1	5197.5	5216.8
20°	5816.9	5990.7	6115.5	6112.5	5975.9	5815.4	5552.5	5344.6	5086.1	4910.8	4896.0
22.5°	5568.9	5861.5	6405.2	6341.3	6102.1	5874.9	5543.6	5221.3	4792.0	4520.2	4509.8
25°	5711.5	5717.4	6204.6	6469.0	6158.6	5849.6	5436.7	5005.9	4456.3	4174.0	4157.7
27.5°	6075.4	6042.7	5907.5	6332.4	6106.6	5720.4	5221.3	4639.0	4150.3	3905.2	3893.3
30°	6507.7	6406.6	6088.8	5669.9	5892.7	5469.3	4890.0	4263.2	3874.0	3651.2	3633.4
32.5°	7024.6	6812.2	6253.6	5597.1	5191.6	5090.6	4462.2	3966.1	3645.2	3413.5	3367.5
35°	7638.1	7320.2	6412.6	5473.8	4644.9	4529.1	4059.7	3698.7	3429.9	3195.2	3149.1
37.5°	7636.6	7967.8	6647.3	5304.5	4306.3	3899.2	3767.0	3520.5	3279.8	2996.1	2944.1
40°	7693.0	7703.4	6905.7	5139.6	3989.9	3575.4	3593.2	3432.8	3184.8	2872.8	2819.3
42.5°	8379.3	7874.2	7222.1	4918.2	3691.3	3336.3	3519.0	3401.6	3134.3	2814.9	2755.5
45°	8976.4	8394.1	6528.5	4676.1	3377.9	3150.6	3459.6	3328.8	3063.0	2745.1	2678.2
47.5°	9496.3	8807.1	6705.2	4252.8	3071.9	2999.1	3345.2	3189.2	2935.2	2639.6	2580.2
50°	9891.5	9148.7	6859.7	3683.9	2774.8	2847.6	3159.5	3000.6	2755.5	2516.3	2465.8
51°	10026.6	9258.7	6890.9	3658.6	2617.3	2776.3	3071.9	2917.4	2697.5	2468.8	2422.7
52.5°	10172.2	9401.3	6936.9	3715.1	2394.5	2658.9	2929.3	2794.1	2611.4	2415.3	2363.3
55°	8458.0	8833.8	6819.6	3596.2	2136.0	2425.7	2667.8	2606.9	2505.9	2332.1	2295.0
57.5°	8149.1	7474.7	5656.5	3045.1	1908.8	2147.9	2413.8	2453.9	2376.7	2199.9	2173.2
60°	8215.9	7406.3	5037.1	2271.2	1683.0	1899.9	2223.7	2259.3	2192.5	2058.8	2021.7
62.5°	8204.0	7231.1	4491.9	1599.8	1486.9	1770.6	2087.0	2101.9	2009.8	1898.4	1864.2
65°	8007.9	6828.5	3747.7	1210.6	1378.5	1699.3	2006.8	2014.2	1899.9	1757.3	1739.4
67.5°	7571.2	6191.3	2606.9	1063.6	1317.6	1644.4	1953.3	1920.7	1810.7	1660.7	1634.0
70°	6734.9	5044.5	1218.1	978.9	1225.5	1543.4	1822.6	1784.0	1663.7	1524.0	1500.3
72.5°	5399.5	3505.6	577.8	895.7	1128.9	1417.1	1662.2	1601.3	1501.8	1449.8	1436.4
75°	3533.8	1645.9	482.8	806.6	1001.2	1264.1	1524.0	1501.8	1409.7	1305.7	1255.2
77.5°	1433.4	433.7	436.7	716.0	898.7	1164.6	1377.0	1359.2	1237.4	1143.8	1123.0
80°	361.0	325.3	399.6	591.2	782.8	1014.5	1207.7	1157.1	1112.6	1011.6	978.9
82.5°	274.8	261.4	313.4	457.5	643.2	836.3	1030.9	1051.7	977.4	900.2	883.8
85°	191.6	237.7	190.1	325.3	476.8	659.5	864.5	901.7	851.1	763.5	704.1
87.5°	105.5	124.8	78.7	170.8	252.5	361.0	496.1	500.6	414.4	380.3	358.0
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)