

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: P237505

Luminaire Tested: **CTN-8-4-D-E1-T4-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P237505
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-27)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: CTN-8-4-D-E1-T4-7030-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 3000K LEDS AND TYPE IV OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 36866 lumens
Efficiency: N/A
Efficacy: 113.4 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

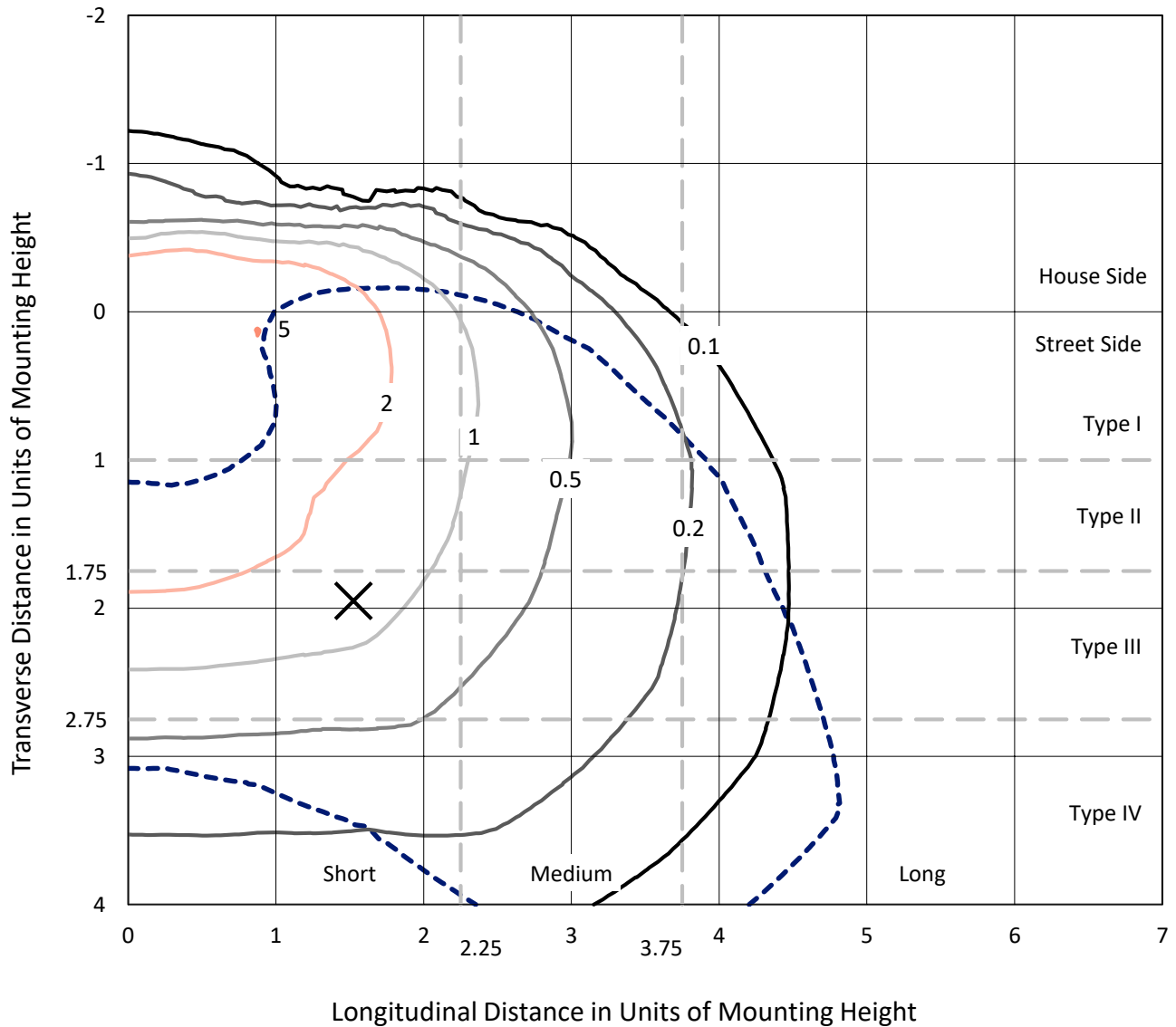
Input Watts (W): 325
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

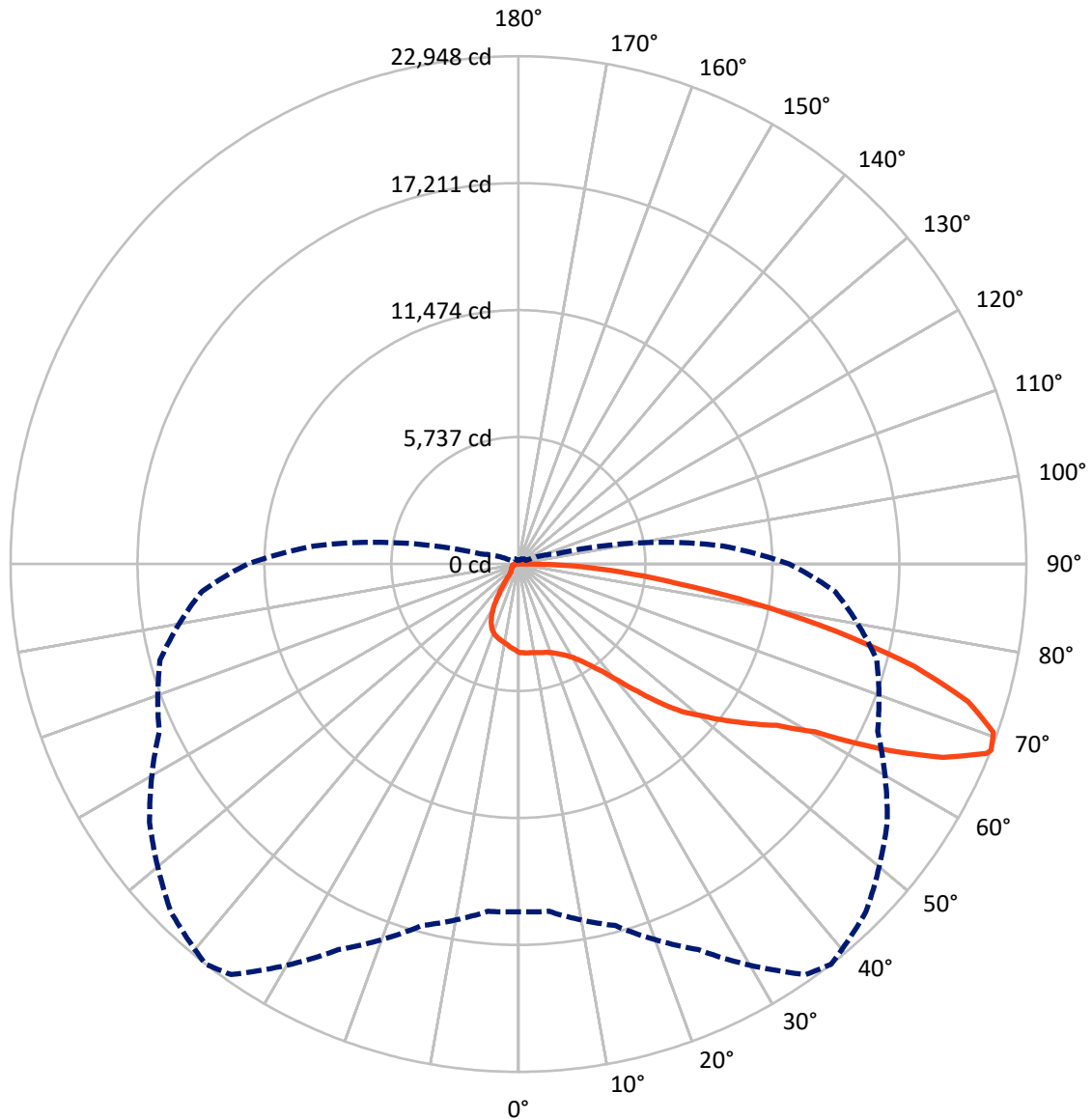
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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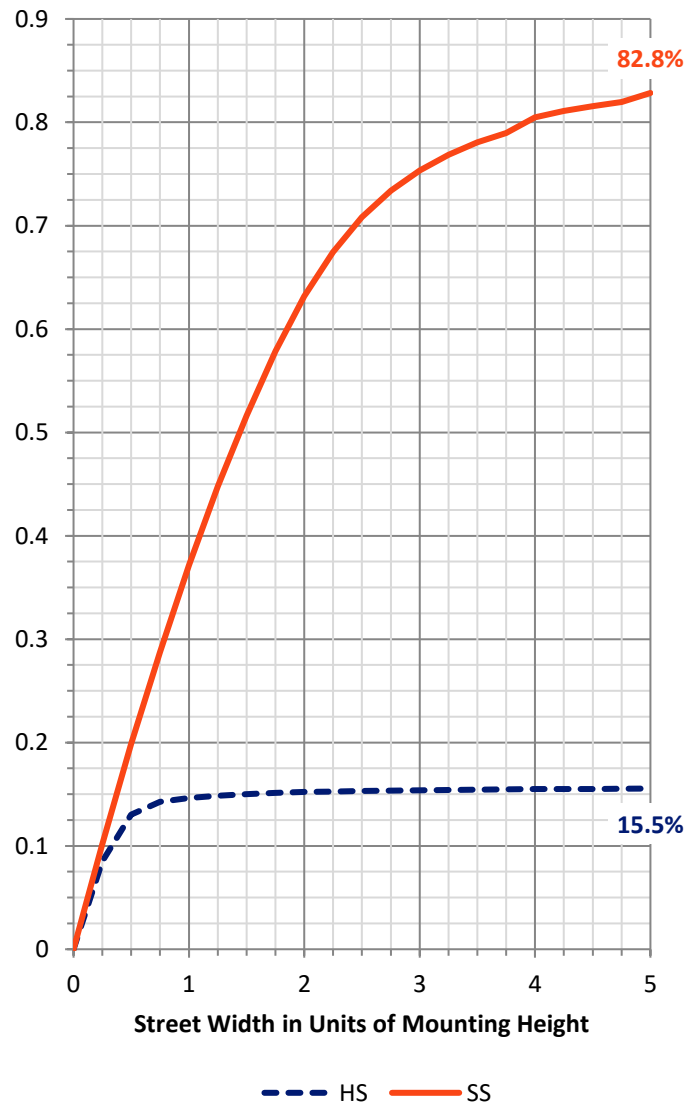
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5814.9	0.0	5814.9
	% Fixture	15.8	0.0	15.8
Street Side	Lumens	31051.1	0.0	31051.1
	% Fixture	84.2	0.0	84.2
Total	Lumens	36866.0	0.0	36866.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	377.5	1.0
10°-20°	1121.0	3.0
20°-30°	1870.9	5.1
30°-40°	2869.7	7.8
40°-50°	4940.5	13.4
50°-60°	7342.3	19.9
60°-70°	9713.2	26.3
70°-80°	7133.5	19.3
80°-90°	1497.4	4.1
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°	36866.0	100.0
0°-180°	36866.0	100.0



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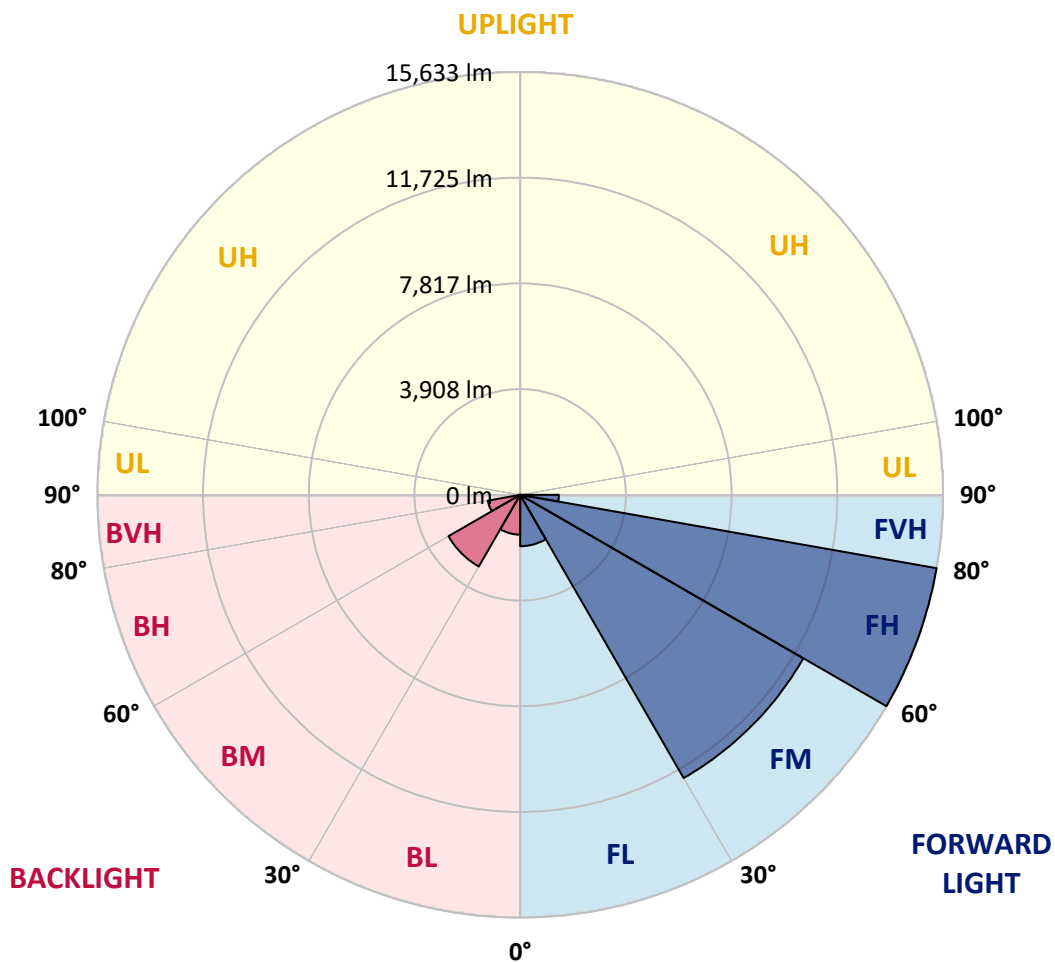
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1898.1	5.1			
FM	(30°-60°)	12091.5	32.8			
FH	(60°-80°)	15633.0	42.4			G5
FVH	(80°-90°)	1428.5	3.9			G5
BL	(0°-30°)	1471.3	4.0	B3/2500		
BM	(30°-60°)	3061.0	8.3	B3/5000		
BH	(60°-80°)	1213.7	3.3	B3/2500		G3/2500
BVH	(80°-90°)	68.9	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	4003.7	4003.7	4003.7	4003.7	4003.7	4003.7	4003.7	4003.7	4003.7	4003.7	4003.7
2.5°	4088.6	4060.3	4065.6	4083.2	4011.7	4006.4	4029.3	4003.7	4037.3	4021.2	4022.5
5°	4099.3	4072.4	4083.2	4110.1	4042.7	4041.4	4067.0	4034.7	4060.3	4040.0	4034.7
7.5°	4089.9	4065.6	4073.7	4099.3	4041.4	4045.4	4079.1	4068.3	4106.1	4085.9	4071.0
10°	4085.9	4069.7	4071.0	4106.1	4060.3	4071.0	4114.2	4120.9	4181.5	4164.0	4157.3
12.5°	4049.5	4037.3	4049.5	4104.7	4089.9	4111.5	4169.4	4204.4	4275.9	4269.1	4282.6
15°	4027.9	4022.5	4032.0	4096.6	4114.2	4149.2	4226.0	4294.7	4381.0	4393.1	4424.1
17.5°	4053.5	4061.6	4079.1	4131.7	4155.9	4192.3	4278.6	4372.9	4495.5	4548.1	4584.5
20°	4161.3	4170.8	4186.9	4220.6	4247.6	4278.6	4355.4	4463.2	4626.2	4708.4	4766.4
22.5°	4317.6	4301.5	4324.4	4352.7	4360.8	4387.7	4465.9	4573.7	4758.3	4882.3	4963.1
25°	4438.9	4428.1	4451.1	4499.6	4498.2	4522.5	4599.3	4709.8	4909.2	5087.1	5230.0
27.5°	4565.6	4558.9	4568.3	4633.0	4658.6	4688.2	4755.6	4879.6	5104.6	5328.3	5553.4
30°	4748.9	4763.7	4747.5	4821.6	4876.9	4910.6	4979.3	5131.6	5372.8	5678.7	5963.0
32.5°	5033.2	5039.9	5013.0	5095.2	5174.7	5225.9	5291.9	5491.4	5755.5	6128.8	6495.3
35°	5639.6	5641.0	5530.5	5518.3	5562.8	5636.9	5734.0	6030.4	6423.9	6999.3	7414.4
37.5°	6558.7	6514.2	6409.1	6204.3	6138.2	6151.7	6290.5	6702.9	7299.8	8361.7	8759.3
40°	7612.5	7561.3	7376.7	7105.8	6911.7	6899.6	6946.8	7441.3	8314.6	9893.9	10094.7
42.5°	8749.8	8714.8	8415.6	8135.3	7887.4	7848.3	7741.8	8237.8	9433.1	11261.7	11260.4
45°	9799.6	9792.9	9427.7	9288.9	9026.1	8923.7	8797.0	9182.4	10582.5	12339.8	12210.4
47.5°	10784.7	10764.5	10376.4	10217.4	10016.6	9961.3	9811.7	10081.2	11564.9	13346.4	13024.4
50°	11830.4	11768.4	11191.7	11031.3	10833.2	10790.1	10711.9	11021.9	12634.9	14226.4	13692.8
52.5°	13045.9	12951.6	12164.6	11866.8	11725.3	11753.6	11703.7	11981.3	13831.6	14962.2	14239.9
55°	14483.8	14200.8	13448.8	12908.5	12594.5	12725.2	12628.2	12974.5	14979.7	15534.9	14638.8
57.5°	15538.9	15537.6	15231.7	14463.6	13752.1	13758.8	13563.4	13958.2	15908.2	16104.9	14871.9
60°	16746.4	16817.8	16922.9	16582.0	15742.4	15390.7	14703.4	14932.5	16654.7	16518.6	14975.7
62.5°	17796.1	17837.9	18302.8	18433.5	18498.2	18412.0	16883.8	16055.1	17265.2	16749.1	15005.3
65°	17758.4	17754.4	18759.7	19635.6	20996.6	21073.5	20632.8	17722.0	17738.2	16778.7	14851.7
67.5°	16025.4	16107.6	17452.5	19329.7	22576.0	22818.6	22210.8	20142.3	17913.4	16765.2	14485.1
68°	15715.5	15750.5	16913.5	19221.9	22643.4	22947.9	22213.5	20344.4	17908.0	16766.6	14371.9
70°	13741.3	13793.8	15149.5	17916.1	22662.3	22767.4	21880.7	20454.9	17730.1	16641.3	13555.3
72.5°	10848.0	10908.7	12144.4	15117.2	21250.0	21245.9	20388.9	19529.1	17127.7	15724.9	11498.9
75°	7859.1	8057.2	9137.9	11873.5	18191.0	18468.6	18358.1	18186.9	15413.6	13288.5	8115.1
77.5°	5510.3	5611.3	6628.7	8930.4	14295.1	14719.6	15464.8	15685.8	12849.2	9868.3	3654.6
80°	3475.4	3665.4	4507.7	6341.7	10414.1	10806.2	11709.1	12081.1	9484.3	4840.5	640.1
82.5°	2025.4	2138.6	2758.5	4107.4	7002.0	7275.6	7867.2	7410.3	3844.6	644.1	355.8
85°	981.0	1084.8	1481.0	2336.7	4371.5	4647.8	4967.2	3231.5	636.1	253.3	239.9
87.5°	397.5	408.3	606.4	1037.6	2179.0	2416.2	2338.1	1060.5	165.8	91.6	75.5
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°	4003.7	4003.7	4003.7	4003.7	4003.7	4003.7	4003.7	4003.7	4003.7	4003.7	4003.7
2.5°	4029.3	4009.1	3984.8	3976.7	3920.1	3917.4	3870.2	3939.0	3918.8	3920.1	3936.3
5°	4032.0	4009.1	3961.9	3940.3	3879.7	3863.5	3785.4	3828.5	3782.7	3778.6	3805.6
7.5°	4060.3	4034.7	3967.3	3933.6	3820.4	3766.5	3692.4	3730.1	3660.0	3645.2	3650.6
10°	4135.7	4103.4	4021.2	3941.7	3801.5	3723.4	3577.8	3590.0	3528.0	3507.8	3525.3
12.5°	4250.3	4211.2	4112.8	3995.6	3817.7	3680.2	3502.4	3430.9	3336.6	3305.6	3315.0
15°	4406.6	4360.8	4231.4	4095.3	3852.7	3660.0	3417.5	3269.2	3086.0	3034.8	3015.9
17.5°	4577.7	4529.2	4379.6	4208.5	3914.7	3637.1	3320.4	3084.6	2820.5	2704.6	2697.9
20°	4778.5	4726.0	4569.6	4340.6	3964.6	3608.8	3199.2	2860.9	2517.3	2323.2	2309.8
22.5°	5009.0	4963.1	4786.6	4457.8	3990.2	3534.7	3015.9	2575.2	2145.3	1902.8	1890.7
25°	5279.8	5236.7	4988.7	4540.0	3961.9	3404.0	2765.2	2224.9	1707.4	1464.8	1454.0
27.5°	5603.2	5535.9	5147.8	4564.3	3878.3	3189.7	2451.2	1774.8	1261.3	1076.7	1067.3
30°	5971.1	5851.2	5297.3	4557.5	3730.1	2916.2	2018.7	1308.5	896.1	772.2	768.1
32.5°	6434.7	6224.5	5440.2	4503.6	3518.5	2557.7	1536.2	908.3	644.1	583.5	582.2
35°	7208.2	6758.1	5596.5	4406.6	3231.5	2087.4	1064.6	618.5	524.2	512.1	512.1
37.5°	8361.7	7638.1	5818.9	4251.6	2859.6	1591.5	700.7	491.9	493.2	500.0	501.3
40°	9546.3	8650.1	6140.9	4021.2	2425.6	1118.5	509.4	456.8	473.0	483.8	491.9
42.5°	10633.8	9566.5	6499.4	3705.8	1935.1	738.5	455.5	439.3	447.4	455.5	463.6
45°	11546.1	10369.6	6837.6	3346.0	1433.8	525.6	451.4	419.1	415.1	420.4	425.8
47.5°	12315.5	11023.2	7074.8	2940.4	975.6	450.1	440.7	397.5	384.1	385.4	388.1
50°	12903.1	11485.4	7179.9	2494.4	646.8	438.0	420.4	374.6	353.1	353.1	355.8
52.5°	13299.3	11775.2	7117.9	1991.7	464.9	431.2	404.3	350.4	324.8	328.8	331.5
55°	13593.0	11930.1	6874.0	1463.5	409.7	411.0	385.4	322.1	300.5	311.3	315.3
57.5°	13707.6	11926.1	6464.3	1010.7	407.0	380.0	358.5	297.8	280.3	295.1	301.9
60°	13665.8	11729.3	5868.7	688.6	398.9	355.8	330.2	274.9	261.4	261.4	262.8
62.5°	13582.3	11453.1	5004.9	510.7	380.0	338.2	308.6	256.0	239.9	231.8	229.1
65°	13204.9	10783.3	3674.9	440.7	361.2	328.8	288.4	238.5	217.0	203.5	200.8
67.5°	12458.4	9631.2	2053.7	407.0	347.7	323.4	274.9	222.4	198.1	181.9	180.6
68°	12229.3	9271.4	1741.1	404.3	350.4	323.4	273.6	218.3	195.4	177.9	176.5
70°	10873.6	7479.1	719.6	380.0	369.2	324.8	266.8	206.2	184.6	167.1	165.8
72.5°	8224.3	4332.5	380.0	330.2	359.8	319.4	269.5	196.7	175.2	155.0	152.3
75°	4531.9	1241.1	338.2	268.2	332.9	336.9	274.9	195.4	169.8	144.2	138.8
77.5°	1006.6	404.3	315.3	234.5	287.0	309.9	254.7	186.0	172.5	132.1	126.7
80°	385.4	328.8	299.2	180.6	227.7	262.8	211.6	165.8	176.5	124.0	117.2
82.5°	322.1	288.4	274.9	140.1	157.7	192.7	169.8	141.5	163.1	114.5	109.2
85°	237.2	278.9	194.1	110.5	115.9	118.6	118.6	110.5	140.1	101.1	95.7
87.5°	95.7	134.8	82.2	51.2	59.3	55.3	48.5	59.3	80.9	71.4	71.4
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)