

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: P453387

Luminaire Tested: **GALN-SA4B-830-U-SL2**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453387
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-14)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4B-830-U-SL2
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17855 lumens
Efficiency: N/A
Efficacy: 108.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G3

Input Watts (W): 164
Input Voltage (V): NR
Input Current (A_{in}): 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

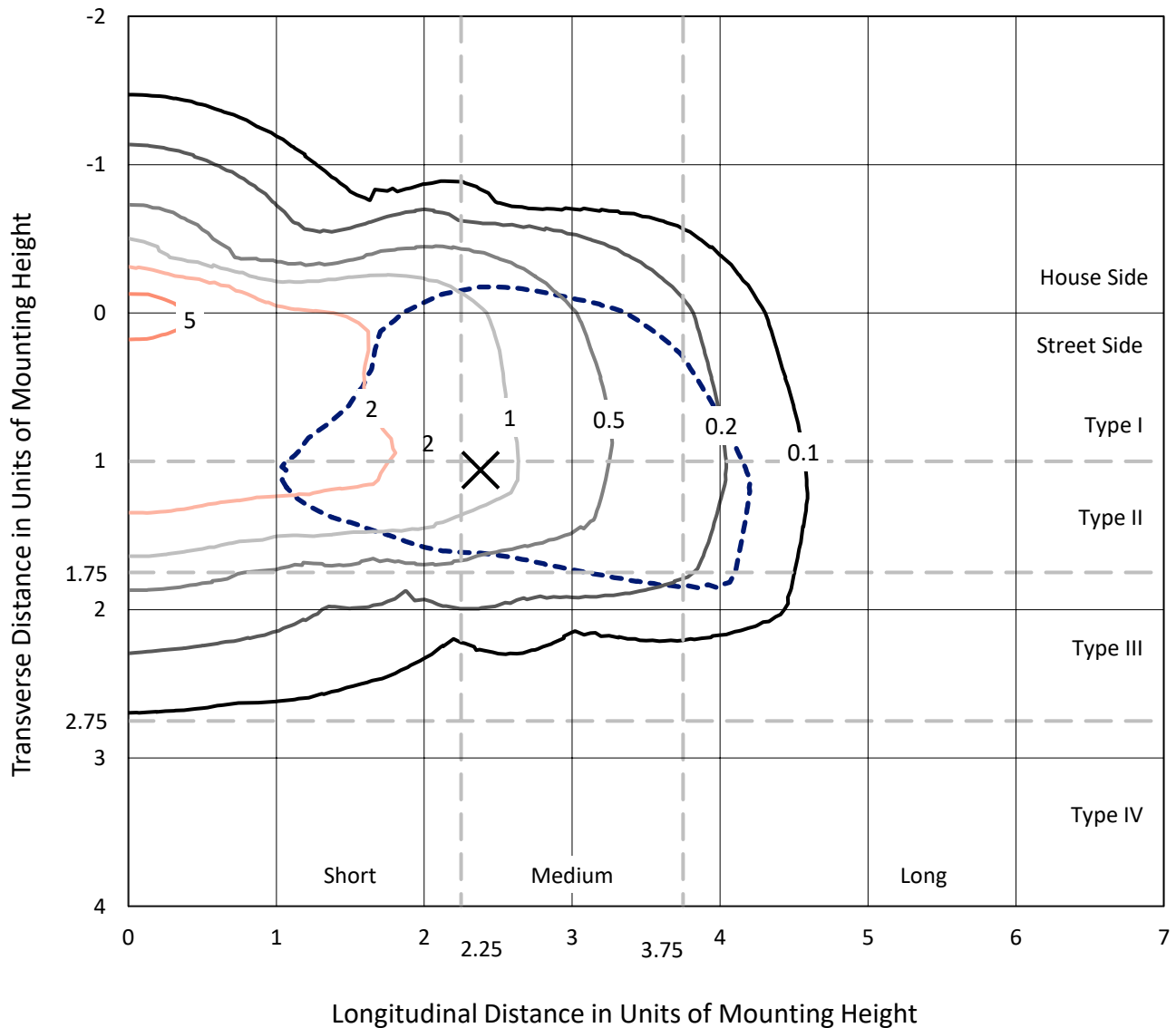


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

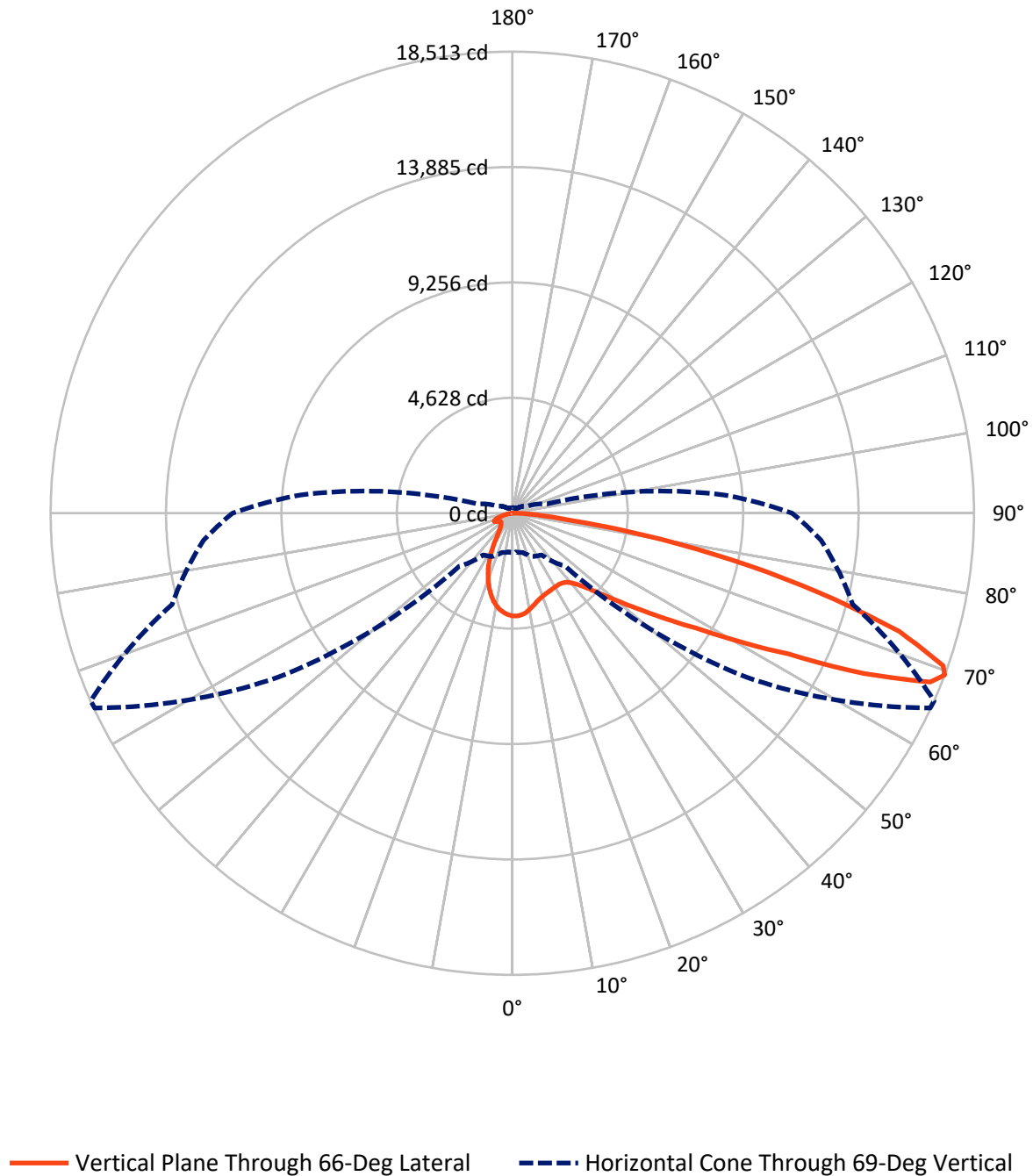


Based on 25 foot mounting height. Maximum calculated value = 6.6 fc
Type III - Medium - N/A

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Luminous Intensity Polar Plot



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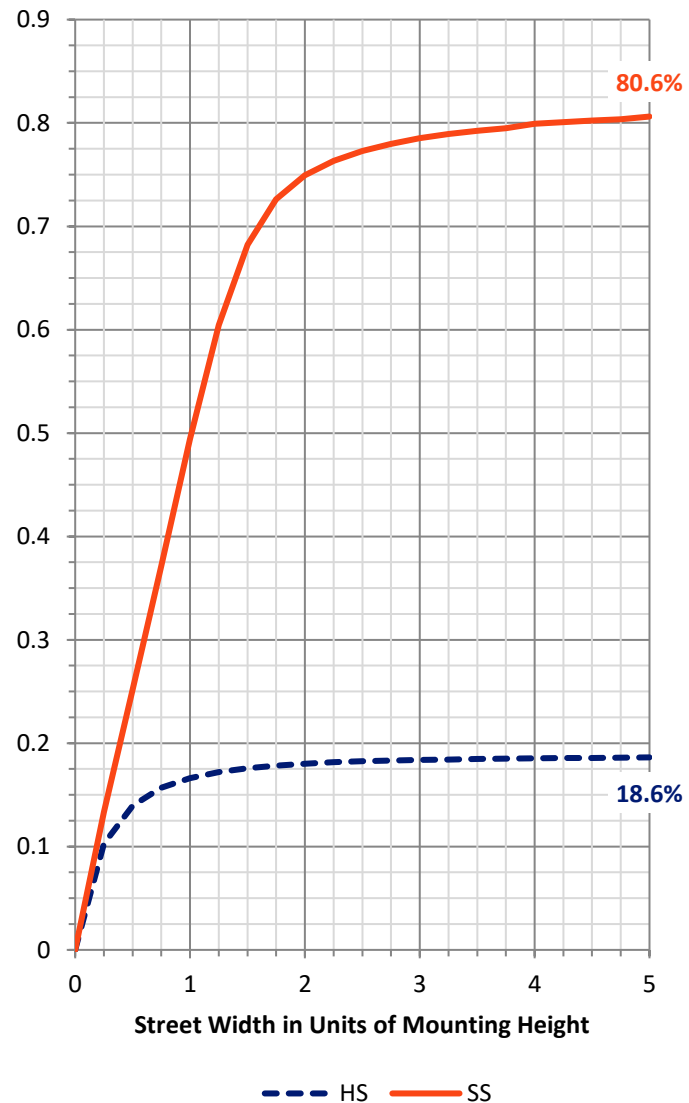
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3357.9	0.0	3357.9
	% Fixture	18.8	0.0	18.8
Street Side	Lumens	14497.2	0.0	14497.2
	% Fixture	81.2	0.0	81.2
Total	Lumens	17855.0	0.0	17855.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	358.1	2.0
10°-20°	849.3	4.8
20°-30°	1156.2	6.5
30°-40°	1553.7	8.7
40°-50°	2319.9	13.0
50°-60°	3690.1	20.7
60°-70°	4538.7	25.4
70°-80°	2953.1	16.5
80°-90°	436.1	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°	17855.0	100.0
0°-180°	17855.0	100.0

Coefficient of Utilization



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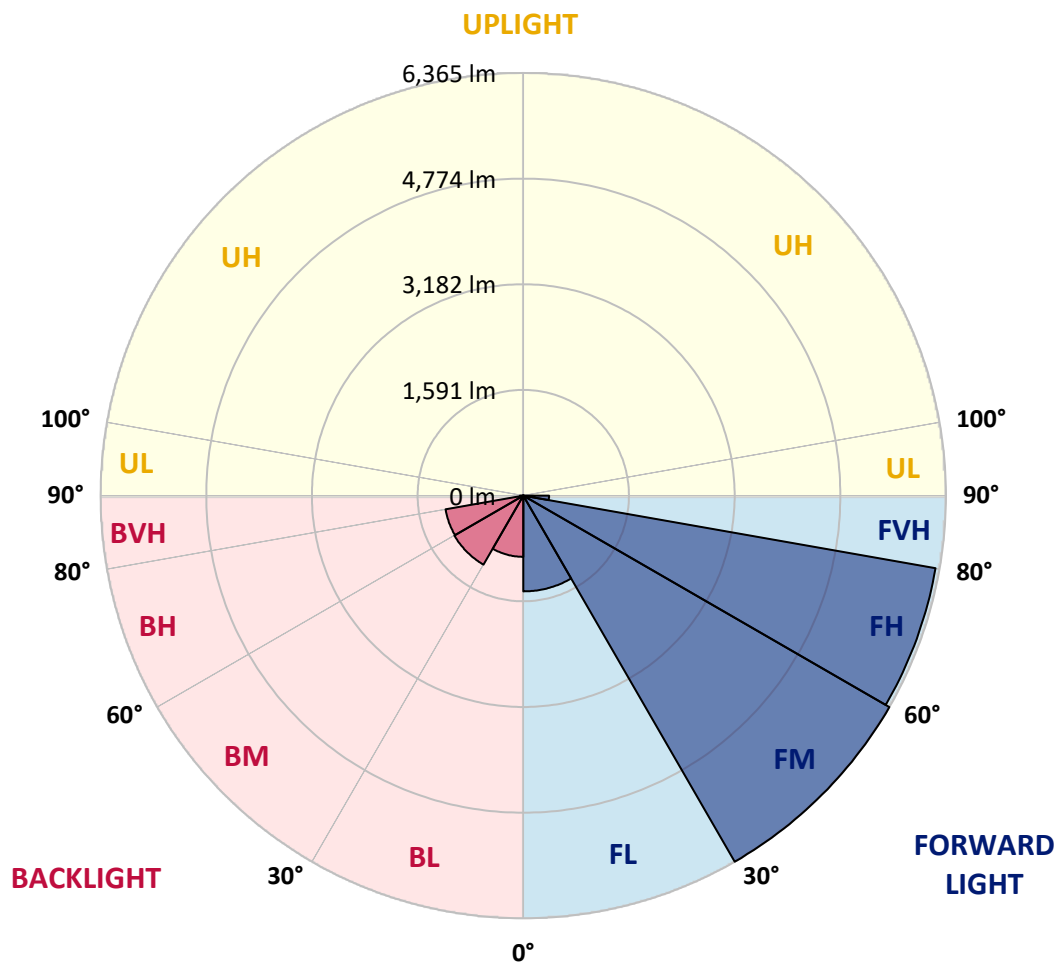
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1441.8	8.1			
FM	(30°-60°)	6364.8	35.6			
FH	(60°-80°)	6302.9	35.3			G3/7500
FVH	(80°-90°)	387.7	2.2			G3/500
BL	(0°-30°)	921.7	5.2	B2/1000		
BM	(30°-60°)	1198.9	6.7	B2/2500		
BH	(60°-80°)	1188.8	6.7	B3/2500		G3/2500
BVH	(80°-90°)	48.4	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	4123.2	4123.2	4123.2	4123.2	4123.2	4123.2	4123.2	4123.2	4123.2	4123.2	4123.2
2.5°	3978.9	3994.7	4012.5	4032.2	4069.8	4090.6	4105.4	4122.2	4124.2	4133.1	4126.2
5°	3685.2	3704.0	3730.7	3768.2	3824.6	3912.6	4003.6	4077.7	4086.6	4128.2	4140.0
7.5°	3440.0	3450.8	3472.6	3532.9	3613.0	3710.9	3843.4	3993.7	4015.4	4114.3	4148.9
10°	3240.2	3251.1	3276.8	3339.1	3418.2	3540.8	3686.2	3883.9	3901.7	4071.8	4150.9
12.5°	3090.9	3100.8	3128.5	3189.8	3280.8	3395.5	3555.7	3765.3	3791.0	4015.4	4132.1
15°	2977.2	2996.0	3018.7	3069.2	3165.1	3275.8	3431.1	3656.5	3677.3	3956.1	4119.3
17.5°	2928.8	2937.7	2953.5	3000.0	3070.2	3178.9	3335.2	3571.5	3596.2	3914.6	4116.3
20°	2930.7	2939.6	2942.6	2968.3	3018.7	3112.7	3266.9	3504.2	3533.9	3878.0	4121.2
22.5°	2998.0	2999.0	2988.1	2979.2	2999.0	3077.1	3218.5	3453.8	3488.4	3862.2	4125.2
25°	3101.8	3119.6	3103.8	3062.3	3025.7	3063.2	3199.7	3426.1	3458.8	3839.4	4120.2
27.5°	3269.9	3272.9	3260.0	3203.6	3108.7	3081.0	3191.8	3405.4	3433.0	3822.6	4095.5
30°	3495.3	3486.4	3474.6	3412.3	3263.0	3149.3	3208.6	3386.6	3415.2	3797.9	4065.9
32.5°	3723.7	3751.4	3740.6	3667.4	3473.6	3281.8	3263.0	3384.6	3408.3	3779.1	4033.2
35°	3966.0	3978.9	4030.3	3992.7	3794.0	3496.3	3364.8	3415.2	3434.0	3780.1	4010.5
37.5°	4155.8	4190.5	4311.1	4343.7	4156.8	3780.1	3529.9	3502.3	3510.2	3828.6	4019.4
40°	4385.2	4444.6	4599.8	4733.3	4610.7	4148.9	3810.8	3663.4	3673.3	3945.2	4077.7
42.5°	4675.9	4717.5	4926.1	5107.1	5087.3	4636.4	4150.9	3927.4	3932.4	4177.6	4240.9
45°	5016.1	5075.4	5309.8	5581.7	5628.1	5188.1	4642.3	4326.9	4323.9	4538.5	4545.4
47.5°	5451.1	5487.7	5720.1	6016.7	6204.6	5881.3	5238.6	4900.4	4868.8	5064.5	5008.2
50°	5851.6	5909.0	6085.0	6409.3	6877.0	6693.1	6022.7	5644.0	5569.8	5752.7	5657.8
52.5°	6019.7	6080.0	6228.3	6630.8	7453.4	7743.1	7018.4	6530.9	6407.3	6547.7	6513.1
55°	5728.0	5806.1	5944.5	6434.0	7706.6	8954.4	8361.1	7556.3	7466.3	7406.0	7415.9
57.5°	4943.9	5018.1	5204.9	5744.8	7404.0	9833.4	10278.4	8874.3	8681.5	8403.6	8451.1
60°	3763.3	3809.8	3906.7	4504.9	6507.2	10061.8	12455.7	10540.4	10417.8	9397.4	9431.0
62.5°	2672.7	2725.1	2792.3	3090.9	4763.9	9418.1	14160.3	12867.0	12429.0	10426.7	10394.1
65°	2170.4	2134.8	2215.9	2355.3	2795.3	7299.2	14544.0	16096.4	15493.2	11782.3	11329.4
67.5°	1784.7	1747.2	1827.3	2075.5	2125.9	4236.9	13161.7	18192.6	18071.9	13256.6	12279.7
69°	1580.1	1560.3	1630.5	1913.3	2040.8	3008.9	11465.9	18484.3	18512.9	14125.7	12426.0
70°	1423.8	1431.8	1500.0	1831.2	2002.3	2480.9	9799.8	18081.8	18325.1	14559.8	12267.8
72.5°	1048.1	1064.9	1159.8	1516.8	1965.7	2105.1	5831.8	15793.8	16223.9	14585.5	11222.7
75°	732.7	724.8	808.8	1142.0	1856.9	2086.3	3425.1	12214.4	12701.9	12607.0	9430.0
77.5°	479.6	492.4	559.6	806.8	1562.3	2070.5	2232.7	8665.7	8982.1	8431.3	5577.7
80°	338.2	337.2	374.7	550.8	1158.9	1989.4	1828.3	5462.0	5381.9	3313.4	1654.2
82.5°	193.8	207.6	251.2	387.6	775.2	1751.1	1681.9	2612.4	2384.9	944.3	558.7
85°	107.8	112.7	149.3	234.3	452.9	1319.0	1468.3	1188.5	1121.3	394.5	240.3
87.5°	34.6	37.6	62.3	118.7	205.7	622.9	831.6	548.8	506.3	142.4	96.9
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°	4123.2	4123.2	4123.2	4123.2	4123.2	4123.2	4123.2	4123.2	4123.2	4123.2	4123.2
2.5°	4129.1	4141.0	4109.4	4078.7	4051.0	4012.5	3977.9	3949.2	3929.4	3926.4	3916.6
5°	4143.0	4144.0	4083.7	4002.6	3923.5	3836.5	3746.5	3682.2	3621.9	3588.3	3571.5
7.5°	4152.9	4144.0	4035.2	3903.7	3751.4	3593.2	3435.0	3308.5	3210.6	3172.0	3186.8
10°	4148.9	4121.2	3962.0	3751.4	3529.9	3293.6	3066.2	2888.2	2725.1	2641.0	2643.0
12.5°	4127.2	4081.7	3853.3	3580.4	3255.1	2938.7	2590.6	2350.3	2161.5	2049.7	2015.1
15°	4108.4	4029.3	3725.7	3348.0	2943.6	2491.7	2067.5	1770.9	1612.7	1524.7	1523.7
17.5°	4088.6	3978.9	3586.3	3101.8	2585.7	2004.3	1559.3	1332.9	1258.7	1267.6	1252.8
20°	4067.8	3919.5	3441.0	2827.9	2149.6	1495.0	1167.8	1075.8	1096.6	1137.1	1143.0
22.5°	4044.1	3856.2	3284.7	2526.3	1690.8	1125.2	947.3	933.4	986.8	1050.1	1059.0
25°	4007.5	3777.1	3088.0	2210.9	1304.2	906.7	829.6	839.5	891.9	945.3	951.2
27.5°	3956.1	3679.3	2889.2	1817.4	979.9	778.2	758.4	771.2	797.0	829.6	837.5
30°	3886.9	3568.5	2660.8	1477.2	785.1	713.9	706.0	712.9	727.7	741.6	745.5
32.5°	3817.7	3461.7	2430.4	1131.2	700.1	671.4	663.5	663.5	663.5	665.4	666.4
35°	3753.4	3360.9	2183.2	881.0	655.6	637.8	626.9	615.0	613.0	606.1	606.1
37.5°	3717.8	3268.9	1920.2	737.6	622.9	610.1	595.2	575.5	564.6	565.6	563.6
40°	3724.7	3208.6	1680.9	656.6	596.2	582.4	559.6	536.9	530.0	530.0	528.0
42.5°	3802.9	3188.8	1451.5	614.0	570.5	554.7	526.0	505.3	501.3	500.3	502.3
45°	3982.8	3237.3	1245.9	586.3	548.8	525.0	496.4	477.6	473.6	473.6	472.6
47.5°	4333.8	3394.5	1098.5	568.5	533.0	502.3	472.6	453.9	446.9	445.0	445.0
50°	4879.6	3735.6	988.8	552.7	513.2	481.5	450.9	429.1	418.3	417.3	416.3
52.5°	5638.0	4267.6	946.3	540.9	491.4	459.8	426.2	405.4	391.6	388.6	386.6
55°	6525.0	5010.2	1004.6	532.0	468.7	435.1	400.5	378.7	365.8	359.9	358.9
57.5°	7552.3	5902.0	1226.1	520.1	447.9	408.4	374.7	353.0	339.2	332.2	330.3
60°	8474.8	6818.6	1612.7	513.2	430.1	379.7	345.1	325.3	312.5	305.5	304.5
62.5°	9488.3	7692.7	2074.5	532.0	422.2	352.0	317.4	299.6	288.7	281.8	281.8
65°	10571.1	8567.8	2380.0	595.2	434.1	330.3	287.7	272.9	263.0	258.1	257.1
67.5°	11300.8	8870.4	1960.8	660.5	463.7	306.5	259.1	247.2	241.3	236.3	236.3
69°	11221.7	8487.7	1446.6	677.3	472.6	294.7	243.2	234.3	226.4	224.5	222.5
70°	10971.5	8051.6	1212.2	666.4	465.7	283.8	233.4	222.5	215.6	213.6	212.6
72.5°	9772.1	6982.8	902.8	579.4	396.5	246.2	206.7	196.8	190.8	187.9	187.9
75°	8118.9	5707.2	705.0	460.8	310.5	207.6	177.0	169.1	164.1	162.2	161.2
77.5°	4550.4	3186.8	506.3	360.9	235.3	168.1	148.3	141.4	136.5	134.5	134.5
80°	1267.6	910.7	297.6	238.3	160.2	127.6	117.7	112.7	105.8	100.9	103.8
82.5°	477.6	394.5	170.1	143.4	101.8	85.0	82.1	78.1	75.1	68.2	68.2
85°	232.4	191.8	108.8	76.1	56.4	44.5	42.5	40.5	38.6	33.6	34.6
87.5°	80.1	85.0	47.5	27.7	16.8	10.9	8.9	4.9	4.9	4.9	4.9
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)