

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: P454783

Luminaire Tested: **GALN-SA5D-830-U-SL4**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P454783
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-SA5D-830-U-SL4
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(5) 80 CRI, 3000K, 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: 30134 lumens
Efficiency: N/A
Efficacy: 97.5 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

Input Watts (W): 309
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

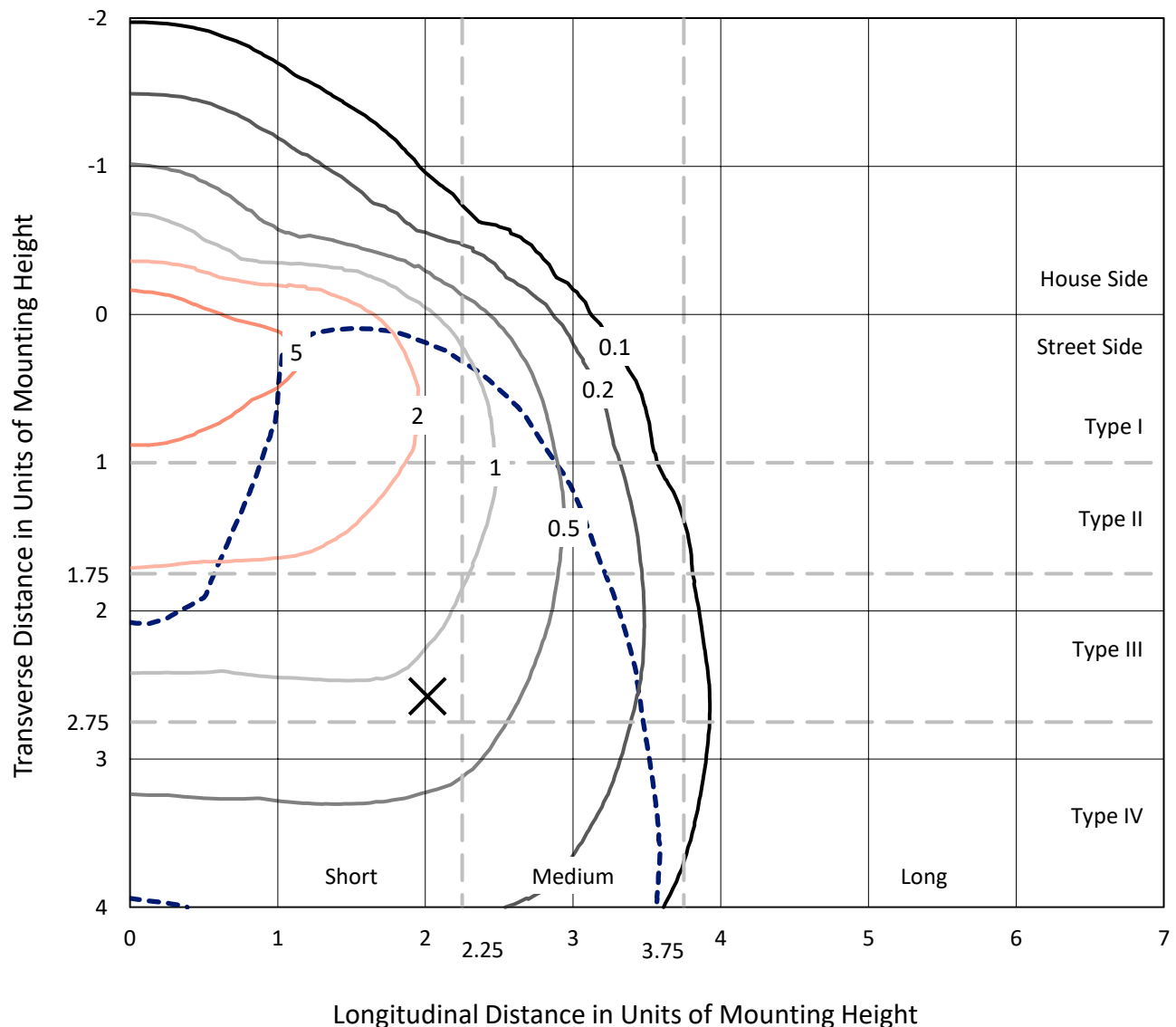


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

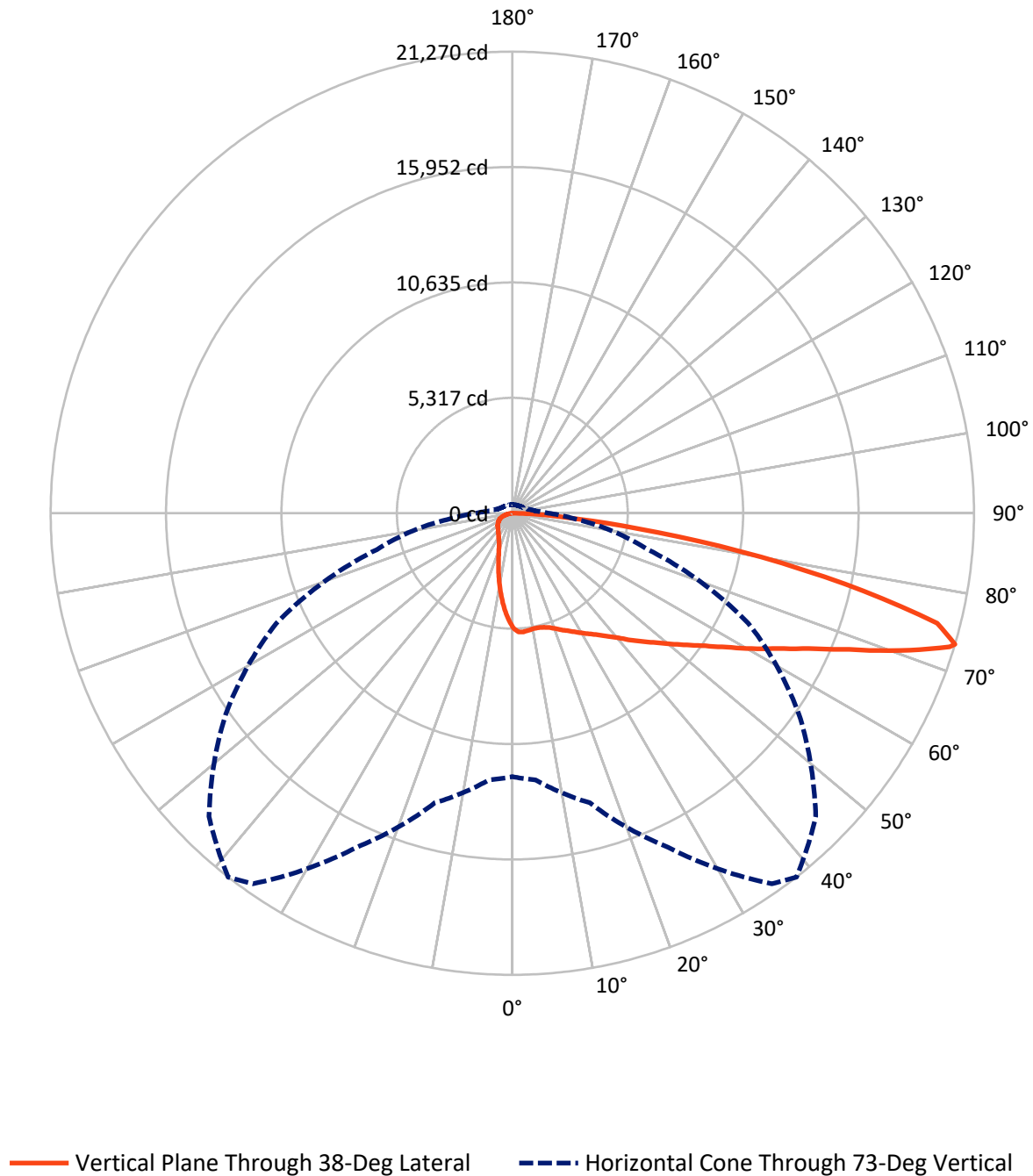


Based on 25 foot mounting height. Maximum calculated value = 8.6 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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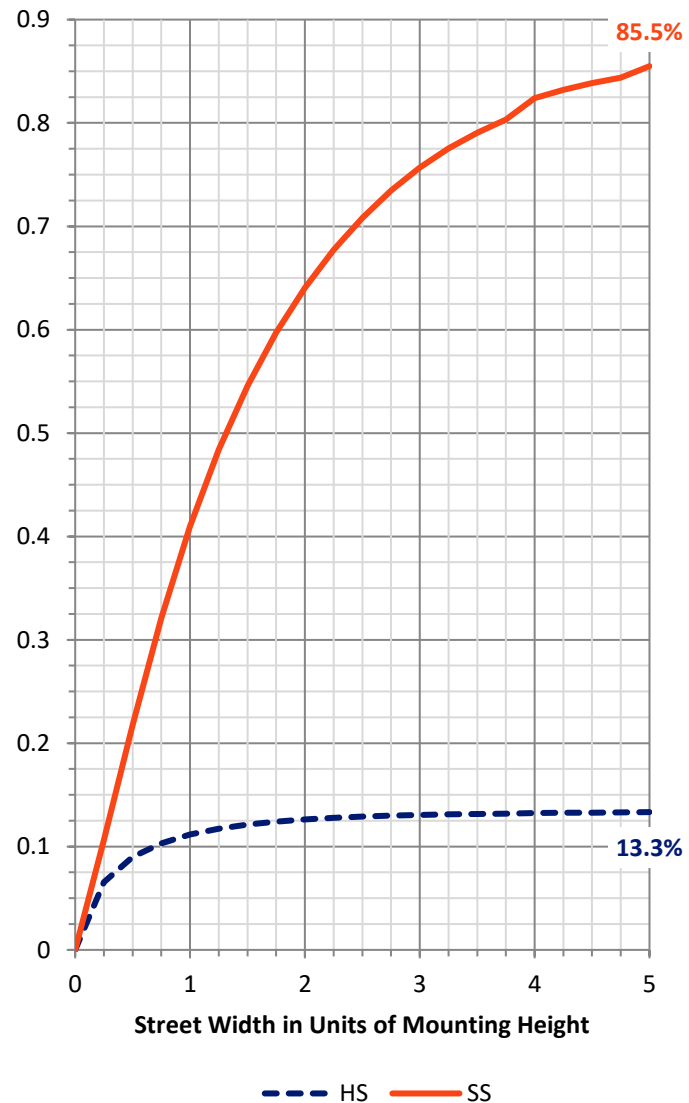
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4050.9	0.0	4050.9
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	26083.1	0.0	26083.1
	% Fixture	86.6	0.0	86.6
Total	Lumens	30134.0	0.0	30134.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	462.1	1.5
10°-20°	1185.0	3.9
20°-30°	1845.3	6.1
30°-40°	2706.6	9.0
40°-50°	4014.9	13.3
50°-60°	5688.4	18.9
60°-70°	7215.9	23.9
70°-80°	6006.6	19.9
80°-90°	1009.2	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°	30134.0	100.0
0°-180°	30134.0	100.0

Coefficient of Utilization



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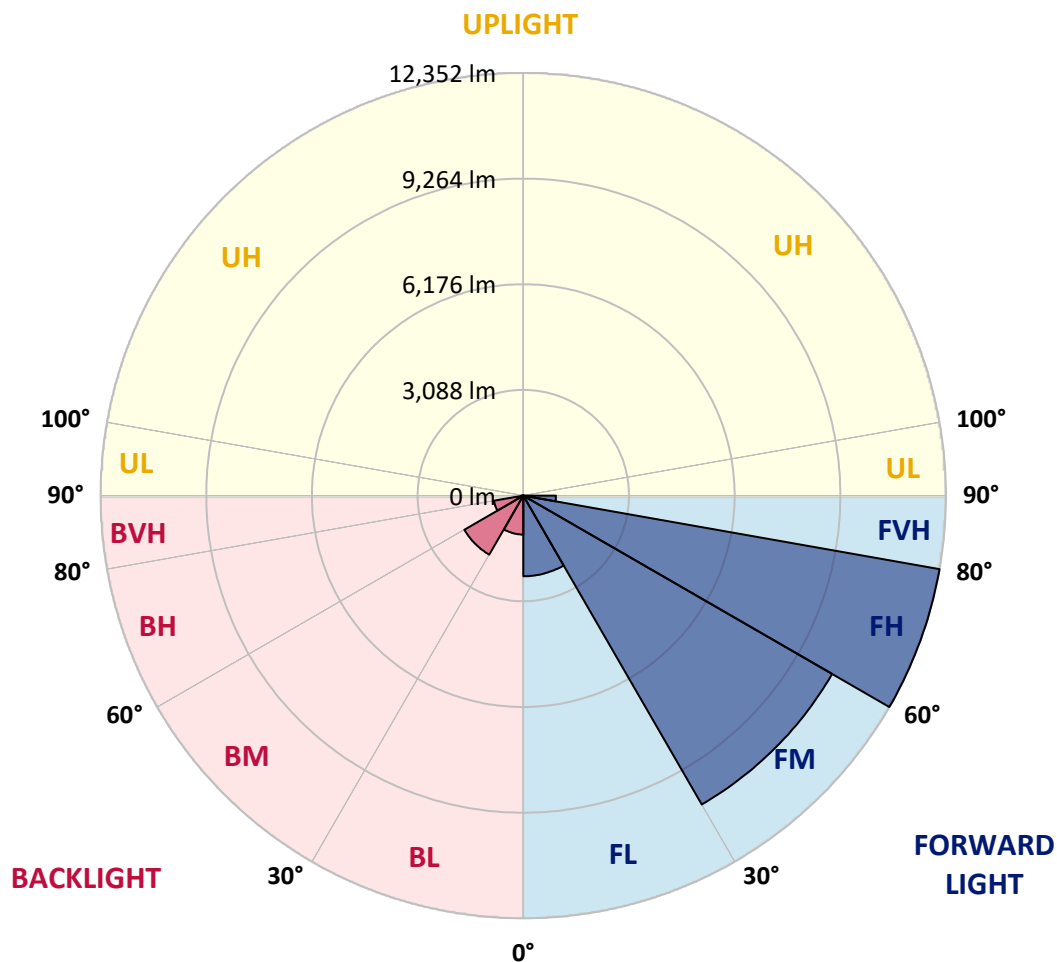
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2355.7	7.8			
FM	(30°-60°)	10421.2	34.6			
FH	(60°-80°)	12351.8	41.0			G5
FVH	(80°-90°)	954.5	3.2			G5
BL	(0°-30°)	1136.7	3.8	B3/2500		
BM	(30°-60°)	1988.7	6.6	B2/2500		
BH	(60°-80°)	870.7	2.9	B2/1000		G2/1000
BVH	(80°-90°)	54.7	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°	5294.0	5294.0	5294.0	5294.0	5294.0	5294.0	5294.0	5294.0	5294.0	5294.0	5294.0
2.5°	5506.7	5534.0	5520.4	5501.6	5489.7	5477.8	5460.8	5411.5	5372.3	5329.8	5263.4
5°	5547.6	5564.6	5552.7	5528.9	5501.6	5489.7	5457.4	5392.7	5329.8	5258.3	5159.6
7.5°	5523.8	5530.6	5517.0	5488.0	5464.2	5442.1	5404.6	5333.2	5256.6	5169.8	5040.5
10°	5438.7	5464.2	5464.2	5440.4	5416.6	5404.6	5367.2	5299.1	5229.4	5130.7	4977.5
12.5°	5368.9	5396.1	5418.3	5411.5	5409.7	5409.7	5380.8	5329.8	5248.1	5154.5	4972.4
15°	5321.3	5353.6	5401.2	5428.5	5445.5	5450.6	5438.7	5394.4	5311.1	5202.1	4992.8
17.5°	5311.1	5350.2	5437.0	5496.5	5540.8	5539.1	5535.7	5474.4	5382.5	5270.2	5018.4
20°	5357.0	5408.0	5528.9	5622.5	5687.1	5675.2	5656.5	5576.5	5469.3	5343.4	5042.2
22.5°	5494.8	5547.6	5680.3	5782.4	5845.4	5845.4	5789.2	5683.7	5569.7	5428.5	5074.5
25°	5692.2	5750.1	5891.3	5995.1	6024.1	6001.9	5945.8	5818.2	5687.1	5551.0	5142.6
27.5°	5933.9	6003.6	6134.7	6221.5	6213.0	6195.9	6138.1	5974.7	5843.7	5719.5	5258.3
30°	6235.1	6286.1	6422.3	6442.7	6412.1	6408.7	6327.0	6163.6	6041.1	5945.8	5423.4
32.5°	6519.3	6565.2	6674.1	6682.6	6628.2	6635.0	6558.4	6408.7	6338.9	6304.9	5700.7
35°	6820.5	6844.3	6937.9	6927.7	6891.9	6886.8	6856.2	6713.3	6735.4	6796.6	6093.8
37.5°	7072.3	7120.0	7172.7	7181.2	7179.5	7196.5	7217.0	7148.9	7276.5	7468.8	6609.5
40°	7303.8	7344.6	7422.9	7450.1	7516.5	7550.5	7620.3	7622.0	7916.4	8232.9	7244.2
42.5°	7460.3	7530.1	7676.4	7725.8	7887.4	7989.5	8093.4	8204.0	8631.1	9037.8	7993.0
45°	7596.5	7688.3	7931.7	8084.8	8304.4	8428.6	8648.1	8879.5	9493.9	10026.5	8753.6
47.5°	7802.4	7884.0	8163.1	8433.7	8765.5	8908.5	9236.9	9582.4	10385.6	10969.3	9482.0
50°	8088.2	8137.6	8421.8	8862.5	9286.3	9470.0	9904.0	10402.6	11338.5	11900.1	10121.8
52.5°	8454.1	8474.5	8700.9	9288.0	9846.1	10074.1	10649.3	11231.3	12172.4	12708.4	10628.9
55°	8886.4	8852.3	9029.3	9738.9	10486.0	10783.8	11401.5	12070.3	13110.0	13361.9	10998.2
57.5°	9313.5	9260.7	9402.0	10286.9	11275.6	11634.6	12354.4	12934.7	13947.3	13972.8	11256.8
60°	9766.1	9727.0	9895.5	10930.1	12243.8	12669.3	13334.6	13831.5	14757.3	14398.2	11297.7
62.5°	10230.7	10167.7	10407.7	11653.3	13334.6	13720.9	14365.9	14784.5	15552.0	14556.5	10904.6
65°	10681.7	10652.7	11023.7	12512.7	14576.9	15015.9	15642.2	15926.3	16188.4	14318.2	9929.5
67.5°	11161.5	11219.4	11811.6	13659.7	16196.9	16748.3	17423.9	17156.7	16370.5	13190.0	8362.2
70°	11893.3	11930.7	12846.2	15162.3	18284.9	18950.3	19277.0	17594.0	15492.4	11047.5	6286.1
72.5°	12208.1	12373.2	13770.3	16739.8	20657.1	21063.8	19899.8	16618.9	12905.8	7504.6	3303.0
73°	12138.3	12335.7	13812.8	16979.7	20842.6	21269.7	19767.1	16116.9	11997.1	6463.1	2831.7
75°	11268.8	11512.1	13259.8	16778.9	20481.8	20226.6	17633.2	13736.2	8107.0	2938.9	1289.9
77.5°	8891.5	8961.2	10506.4	13549.0	16128.8	15655.8	13196.8	8585.1	3311.5	1092.5	731.7
80°	4460.2	4717.2	5922.0	7761.5	10785.5	10630.6	8329.9	4060.3	1380.1	641.5	485.0
82.5°	2145.9	2327.9	2884.4	3784.6	5959.4	5818.2	4125.0	2219.0	876.4	374.4	285.9
85°	1381.8	1517.9	1836.1	1805.5	2450.5	2339.9	1853.2	1679.6	519.0	195.7	199.1
87.5°	912.1	998.9	1198.0	958.1	891.7	806.6	818.5	946.2	102.1	74.9	27.2
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°	5294.0	5294.0	5294.0	5294.0	5294.0	5294.0	5294.0	5294.0	5294.0	5294.0	5294.0
2.5°	5236.2	5214.1	5140.9	5069.4	5001.3	4936.7	4894.1	4838.0	4800.5	4810.7	4826.1
5°	5105.1	5055.8	4926.5	4800.5	4681.4	4540.2	4426.2	4334.3	4264.5	4239.0	4233.9
7.5°	4967.3	4883.9	4698.4	4482.3	4279.8	4104.5	3902.0	3801.6	3684.2	3643.4	3629.8
10°	4883.9	4771.6	4511.2	4210.0	3905.4	3614.4	3394.9	3216.2	3054.6	3023.9	3008.6
12.5°	4860.1	4712.0	4361.5	3973.5	3568.5	3211.1	2886.1	2651.3	2494.7	2459.0	2406.2
15°	4846.5	4662.7	4222.0	3735.3	3221.3	2785.7	2443.7	2169.7	2026.7	1931.4	1933.1
17.5°	4834.6	4606.5	4065.4	3474.9	2921.8	2419.8	2042.1	1795.3	1664.3	1613.2	1608.1
20°	4817.6	4540.2	3885.0	3200.9	2579.8	2086.3	1744.3	1560.5	1472.0	1429.4	1427.7
22.5°	4810.7	4475.5	3708.0	2921.8	2276.9	1829.3	1546.9	1417.5	1361.4	1332.4	1332.4
25°	4827.8	4429.6	3522.5	2656.4	2008.0	1609.8	1410.7	1322.2	1289.9	1274.6	1269.5
27.5°	4880.5	4409.1	3338.8	2390.9	1761.3	1460.1	1318.8	1257.6	1233.7	1221.8	1223.5
30°	4980.9	4407.4	3158.4	2128.8	1577.5	1346.1	1245.7	1203.1	1184.4	1177.6	1175.9
32.5°	5142.6	4444.9	2981.4	1912.7	1422.6	1250.8	1177.6	1147.0	1138.4	1133.3	1131.6
35°	5416.6	4550.4	2806.1	1715.3	1303.5	1165.7	1112.9	1097.6	1085.7	1090.8	1092.5
37.5°	5785.8	4732.5	2639.4	1560.5	1213.3	1102.7	1058.5	1044.9	1038.0	1043.2	1048.3
40°	6281.0	4994.5	2499.8	1436.2	1148.7	1050.0	1010.8	998.9	992.1	1000.6	1002.3
42.5°	6827.3	5297.4	2384.1	1339.2	1095.9	1005.7	968.3	954.7	949.6	954.7	956.4
45°	7388.8	5649.7	2324.5	1269.5	1051.7	973.4	934.2	918.9	907.0	903.6	908.7
47.5°	7941.9	5956.0	2322.8	1226.9	1015.9	944.5	901.9	884.9	869.6	861.1	859.4
50°	8392.9	6199.3	2363.7	1208.2	985.3	912.1	869.6	852.6	832.1	815.1	818.5
52.5°	8733.2	6357.6	2382.4	1199.7	968.3	878.1	835.5	820.2	796.4	774.3	774.3
55°	8952.7	6395.0	2336.5	1191.2	954.7	842.3	796.4	782.8	759.0	736.8	736.8
57.5°	9027.6	6279.3	2171.4	1170.8	941.0	811.7	757.3	745.4	726.6	704.5	701.1
60°	8854.0	5887.9	1882.1	1109.5	913.8	779.4	714.7	709.6	702.8	684.1	682.4
62.5°	8185.2	5057.5	1567.3	1029.5	867.9	745.4	675.6	684.1	689.2	679.0	677.3
65°	7072.3	4106.2	1339.2	918.9	806.6	697.7	633.0	655.2	668.8	668.8	665.4
67.5°	5736.5	3153.3	1128.2	823.6	730.0	633.0	585.4	602.4	612.6	609.2	617.7
70°	4077.3	2135.7	918.9	714.7	633.0	559.9	524.1	524.1	517.3	513.9	513.9
72.5°	1977.4	1220.1	745.4	597.3	539.4	478.2	449.3	437.3	423.7	422.0	413.5
73°	1652.4	1094.2	711.3	575.2	517.3	466.3	433.9	415.2	406.7	399.9	398.2
75°	1005.7	830.4	593.9	485.0	440.7	401.6	372.7	355.7	347.1	342.0	340.3
77.5°	662.0	619.4	461.2	371.0	336.9	313.1	301.2	284.2	279.1	272.3	272.3
80°	493.5	473.1	330.1	262.1	241.6	221.2	217.8	214.4	200.8	192.3	188.9
82.5°	318.2	336.9	224.6	175.3	153.2	136.1	137.8	142.9	129.3	117.4	114.0
85°	226.3	243.3	136.1	80.0	64.7	56.2	63.0	56.2	57.9	45.9	37.4
87.5°	37.4	64.7	23.8	10.2	5.1	3.4	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)