

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: P453862

Luminaire Tested: **GALN-SA4D-830-U-T2**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453862
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-10)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4D-830-U-T2
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24457 lumens
Efficiency: N/A
Efficacy: 99.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G4

Input Watts (W): 245
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

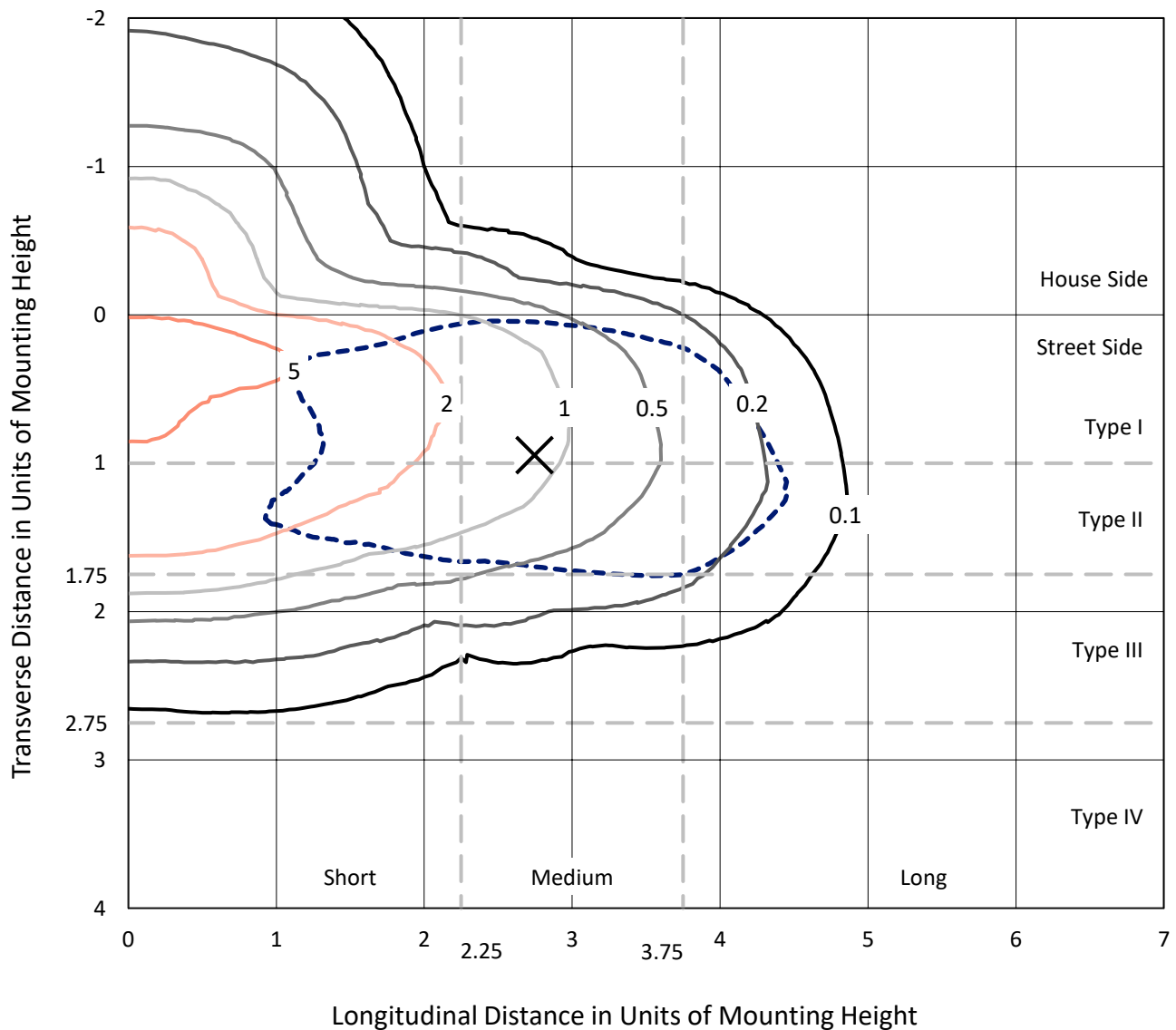


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

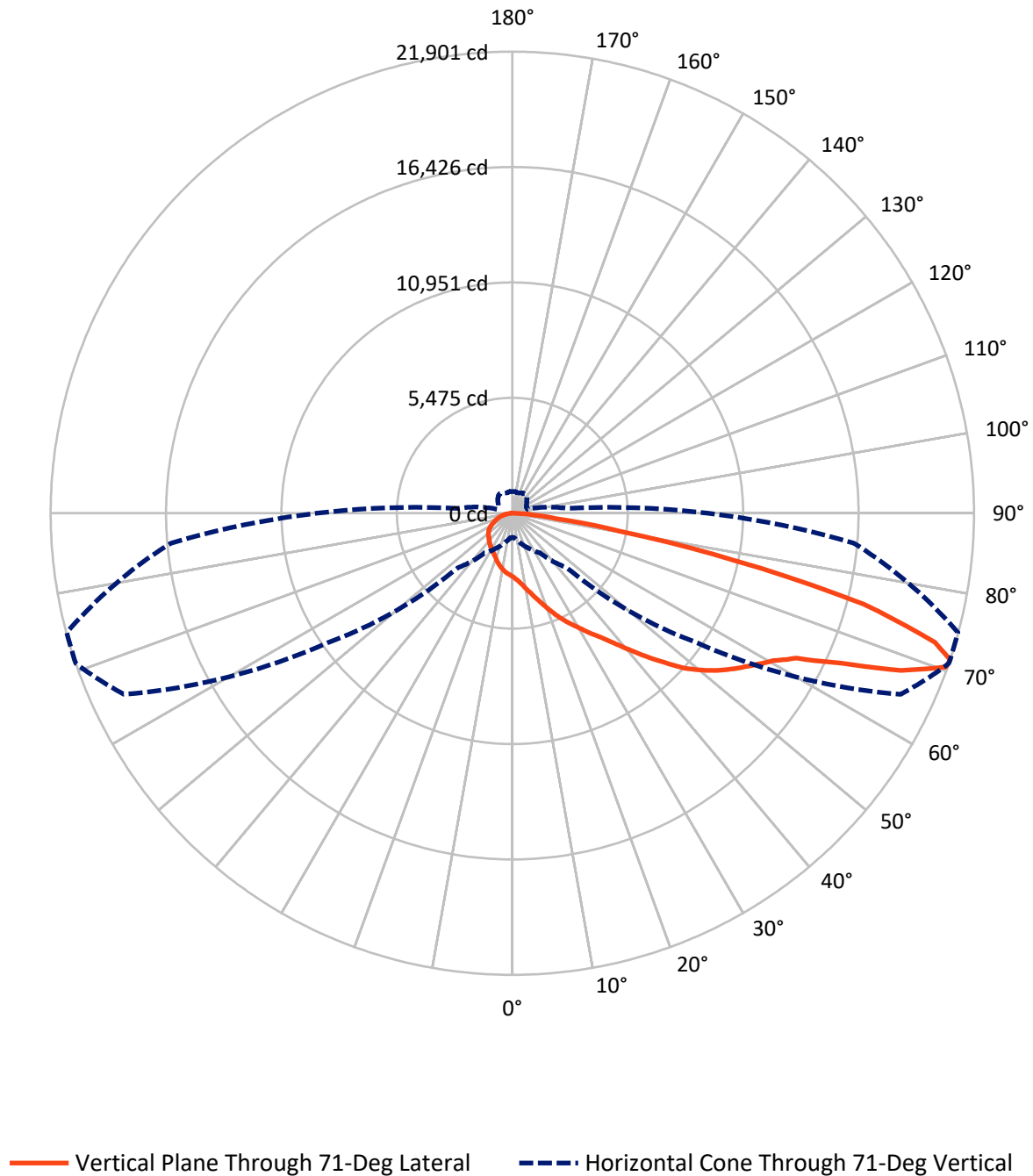


Based on 25 foot mounting height. Maximum calculated value = 6.8 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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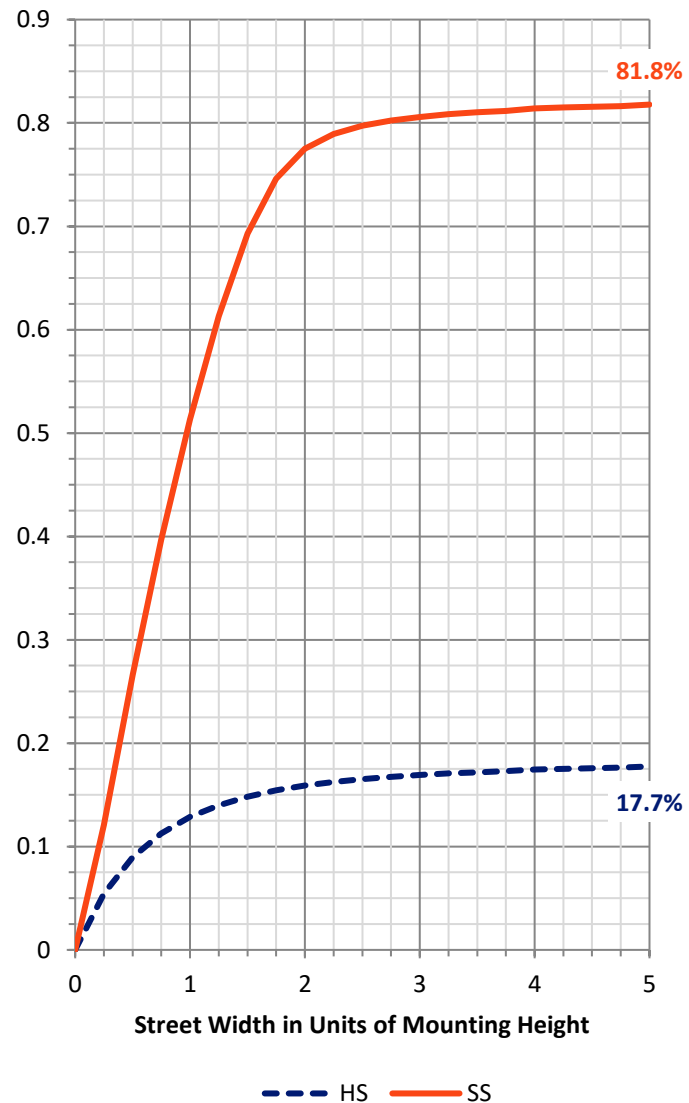
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4398.5	0.0	4398.5
	% Fixture	18.0	0.0	18.0
Street Side	Lumens	20058.5	0.0	20058.5
	% Fixture	82.0	0.0	82.0
Total	Lumens	24457.0	0.0	24457.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	301.4	1.2
10°-20°	979.2	4.0
20°-30°	1711.2	7.0
30°-40°	2545.2	10.4
40°-50°	3750.0	15.3
50°-60°	5250.0	21.5
60°-70°	5871.9	24.0
70°-80°	3586.8	14.7
80°-90°	461.4	1.9
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°	24457.0	100.0
0°-180°	24457.0	100.0

Coefficient of Utilization



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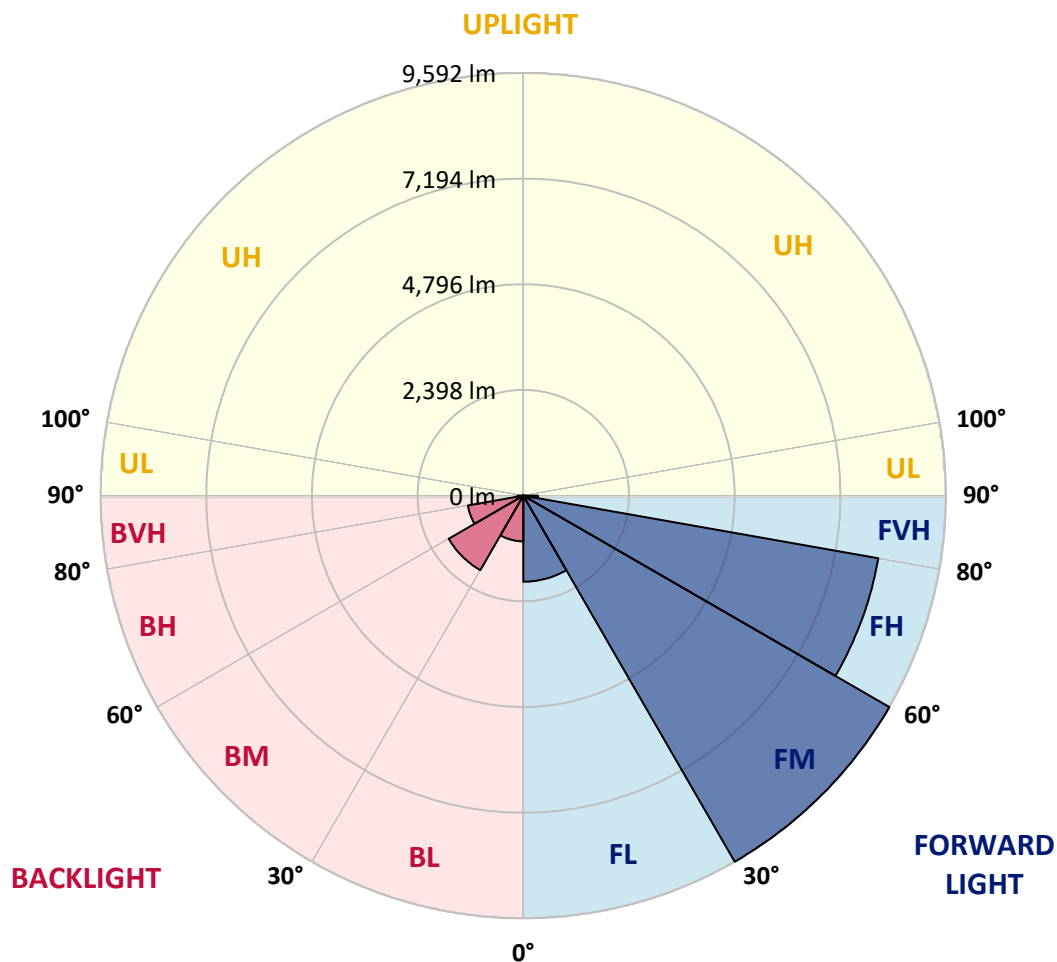
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1954.1	8.0			
FM	(30°-60°)	9591.6	39.2			
FH	(60°-80°)	8180.8	33.4			G4/12000
FVH	(80°-90°)	332.0	1.4			G3/500
BL	(0°-30°)	1037.6	4.2	B3/2500		
BM	(30°-60°)	1953.6	8.0	B2/2500		
BH	(60°-80°)	1278.0	5.2	B3/2500		G3/2500
BVH	(80°-90°)	129.4	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	71°	75°	85°
0°	3001.6	3001.6	3001.6	3001.6	3001.6	3001.6	3001.6	3001.6	3001.6	3001.6	3001.6
2.5°	3332.3	3316.2	3317.5	3294.7	3265.1	3232.8	3187.1	3146.8	3114.5	3095.7	3040.6
5°	3692.5	3676.4	3656.2	3606.5	3585.0	3505.7	3404.9	3313.5	3243.6	3204.6	3094.4
7.5°	3984.2	3980.2	3974.8	3946.6	3891.5	3781.3	3695.2	3536.6	3433.1	3359.2	3171.0
10°	4164.4	4171.1	4175.1	4180.5	4157.6	4099.8	3981.5	3781.3	3649.5	3555.4	3270.5
12.5°	4255.8	4262.5	4285.3	4335.1	4366.0	4359.3	4262.5	4066.2	3884.8	3761.1	3376.6
15°	4312.2	4323.0	4363.3	4429.2	4532.7	4598.5	4551.5	4370.0	4171.1	4024.6	3503.0
17.5°	4374.0	4386.1	4430.5	4524.6	4660.4	4802.9	4853.9	4698.0	4481.6	4306.8	3644.1
20°	4409.0	4425.1	4488.3	4612.0	4770.6	4977.6	5147.0	5065.0	4828.4	4634.8	3806.8
22.5°	4465.5	4478.9	4532.7	4664.4	4853.9	5113.4	5440.0	5422.5	5214.2	4964.2	3985.6
25°	4618.7	4640.2	4667.1	4746.4	4929.2	5251.8	5683.3	5804.3	5587.9	5308.3	4149.6
27.5°	4907.7	4925.2	4923.8	4934.6	5038.1	5371.5	5894.3	6182.0	5958.9	5656.4	4308.2
30°	5237.0	5243.8	5249.1	5224.9	5247.8	5493.8	6087.9	6555.7	6332.6	6014.0	4446.6
32.5°	5637.6	5651.0	5605.3	5543.5	5524.7	5675.2	6247.9	6929.4	6774.8	6376.9	4583.7
35°	6110.8	6145.7	6053.0	5944.1	5867.5	5936.0	6462.9	7311.1	7227.8	6840.7	4765.2
37.5°	6651.1	6694.2	6608.1	6394.4	6285.5	6304.3	6743.9	7783.0	7800.4	7368.9	5035.4
40°	7093.4	7149.8	7152.5	6850.1	6684.7	6706.2	7100.1	8291.1	8491.4	8022.2	5354.0
42.5°	7385.1	7440.2	7498.0	7320.6	7147.1	7269.5	7515.5	8842.2	9268.3	8815.3	5798.9
45°	7705.0	7754.7	7787.0	7706.3	7609.6	7926.8	8016.9	9428.3	10096.3	9701.1	6285.5
47.5°	8076.0	8131.1	8162.0	8085.4	8049.1	8503.5	8557.2	9975.4	10980.8	10561.4	6823.2
50°	8570.7	8612.3	8596.2	8547.8	8539.7	8945.7	9076.1	10487.5	11710.7	11487.6	7381.0
52.5°	9186.3	9236.0	9253.5	9185.0	9154.0	9261.6	9494.1	10953.9	12374.8	12283.4	7976.5
55°	9558.7	9638.0	9904.1	10011.7	10085.6	9670.2	9944.4	11468.8	12970.3	13122.1	8616.4
57.5°	9081.5	9183.6	9779.1	10316.8	11011.7	10691.8	10582.9	12006.5	13565.7	13935.4	9382.6
60°	7917.4	7940.2	8707.8	9698.5	11096.4	12005.1	11915.1	12861.4	14211.0	14755.4	10392.1
62.5°	5492.4	5540.8	6448.2	8028.9	10050.6	12478.3	14181.4	14337.3	15135.8	15982.6	11872.0
65°	2832.2	2769.1	3595.8	5046.2	7577.3	11354.5	16017.6	17051.3	17141.3	17902.1	13955.6
67.5°	1743.4	1771.7	2158.8	2946.5	4480.2	8252.1	15825.3	20367.4	19892.9	20258.5	15889.9
70°	1309.3	1344.2	1610.4	2016.3	2731.4	4718.2	12727.0	21171.3	21834.0	21739.9	16478.6
71°	1138.5	1174.8	1451.7	1834.8	2294.6	3641.5	10722.7	20329.8	21901.2	21885.0	16256.8
72.5°	970.5	993.4	1209.8	1553.9	1934.3	2552.6	8055.8	18232.8	20966.9	21503.3	15465.1
75°	762.2	779.6	876.4	1185.6	1523.0	1567.3	4323.0	13669.2	17220.6	18242.2	12874.8
77.5°	621.0	633.1	682.9	880.5	1174.8	1110.3	2267.7	8897.3	10788.6	11816.9	7584.0
80°	493.3	506.8	536.3	596.8	880.5	791.7	1082.1	4508.5	5211.5	5200.7	3027.2
82.5°	383.1	387.1	422.1	438.2	602.2	561.9	586.1	1908.8	2114.4	2184.3	1092.8
85°	242.0	254.1	373.7	336.1	360.2	329.3	289.0	758.1	934.2	920.8	436.9
87.5°	73.9	78.0	126.4	142.5	160.0	143.8	106.2	223.1	272.9	295.7	108.9
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°	3001.6	3001.6	3001.6	3001.6	3001.6	3001.6	3001.6	3001.6	3001.6	3001.6	3001.6
2.5°	3019.1	3004.3	2951.9	2908.9	2868.5	2824.2	2786.5	2775.8	2766.4	2762.3	2761.0
5°	3047.3	3003.0	2899.5	2814.8	2747.6	2685.7	2646.7	2629.3	2611.8	2611.8	2617.2
7.5°	3087.6	3007.0	2847.0	2720.7	2636.0	2578.2	2550.0	2547.3	2551.3	2555.3	2556.7
10°	3132.0	3004.3	2770.4	2613.1	2537.9	2511.0	2512.3	2535.2	2556.7	2572.8	2575.5
12.5°	3175.0	2988.2	2680.3	2512.3	2463.9	2469.3	2506.9	2558.0	2599.7	2622.5	2623.9
15°	3223.4	2962.6	2571.5	2416.9	2400.8	2442.4	2512.3	2590.3	2653.5	2691.1	2695.1
17.5°	3263.7	2919.6	2457.2	2324.1	2344.3	2420.9	2517.7	2618.5	2695.1	2742.2	2750.2
20°	3309.4	2864.5	2338.9	2235.4	2293.2	2396.7	2506.9	2615.8	2695.1	2740.8	2751.6
22.5°	3345.7	2786.5	2226.0	2162.8	2247.5	2367.1	2470.7	2558.0	2622.5	2646.7	2662.9
25°	3360.5	2688.4	2119.8	2103.7	2211.2	2318.8	2388.7	2438.4	2458.6	2455.9	2462.6
27.5°	3352.5	2575.5	2028.4	2056.6	2165.5	2243.5	2278.4	2274.4	2238.1	2204.5	2220.6
30°	3318.8	2441.1	1951.8	2008.2	2106.4	2149.4	2144.0	2091.6	2023.0	1959.9	1963.9
32.5°	3258.4	2295.9	1880.5	1953.1	2023.0	2041.9	2005.6	1937.0	1838.9	1756.9	1744.8
35°	3207.3	2157.5	1817.4	1890.0	1939.7	1930.3	1895.3	1806.6	1717.9	1645.3	1633.2
37.5°	3199.2	2039.2	1756.9	1818.7	1846.9	1833.5	1790.5	1715.2	1682.9	1627.8	1621.1
40°	3242.2	1955.8	1695.0	1743.4	1756.9	1746.1	1699.1	1656.1	1685.6	1672.2	1672.2
42.5°	3359.2	1911.5	1639.9	1668.2	1678.9	1687.0	1653.4	1617.1	1653.4	1591.5	1571.4
45°	3544.7	1912.8	1590.2	1594.2	1626.5	1654.7	1631.9	1578.1	1559.3	1435.6	1411.4
47.5°	3817.5	1958.5	1549.9	1524.3	1582.1	1629.2	1596.9	1519.0	1435.6	1353.6	1338.8
50°	4136.1	2040.5	1513.6	1451.7	1523.0	1596.9	1572.7	1481.3	1395.3	1345.6	1336.1
52.5°	4489.7	2144.0	1469.2	1371.1	1450.4	1582.1	1578.1	1475.9	1357.6	1324.0	1316.0
55°	4926.5	2246.2	1414.1	1277.0	1385.9	1570.0	1563.3	1431.6	1349.6	1325.4	1322.7
57.5°	5434.6	2394.0	1334.8	1181.6	1311.9	1520.3	1505.5	1404.7	1322.7	1305.2	1303.9
60°	6253.3	2623.9	1221.9	1094.2	1236.7	1432.9	1451.7	1359.0	1279.7	1275.7	1274.3
62.5°	7330.0	2946.5	1104.9	1004.1	1149.3	1320.0	1373.8	1297.2	1234.0	1254.1	1256.8
65°	8816.7	3218.0	984.0	927.5	1052.5	1211.1	1299.8	1239.4	1182.9	1221.9	1221.9
67.5°	9785.8	3223.4	873.7	848.2	954.4	1119.7	1221.9	1170.8	1117.0	1182.9	1185.6
70°	9584.2	2824.2	782.3	764.9	858.9	1021.6	1135.9	1095.5	1033.7	1092.8	1071.3
71°	9258.9	2602.4	746.0	732.6	821.3	974.6	1095.5	1061.9	1000.1	1039.1	1027.0
72.5°	8740.0	2259.6	686.9	689.6	764.9	915.4	1039.1	1004.1	942.3	963.8	959.8
75°	7387.8	1973.3	587.4	599.5	657.3	814.6	926.2	899.3	836.1	836.1	832.1
77.5°	4618.7	1379.2	487.9	494.7	557.8	697.6	795.8	772.9	712.4	692.3	686.9
80°	1723.3	712.4	381.8	389.8	428.8	549.8	658.7	637.2	575.3	552.5	531.0
82.5°	651.9	357.6	280.9	274.2	315.9	419.4	516.2	490.6	442.2	387.1	371.0
85°	246.0	177.4	172.1	166.7	185.5	248.7	319.9	314.5	263.5	224.5	220.4
87.5°	64.5	57.8	67.2	49.7	52.4	47.0	48.4	20.2	9.4	4.0	2.7
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)