

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: P453868

Luminaire Tested: **GALN-SA4D-830-U-T3R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453868
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-8)
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-T3R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24886 lumens
Efficiency: N/A
Efficacy: 101.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

Input Watts (W): 245
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: 24 FT

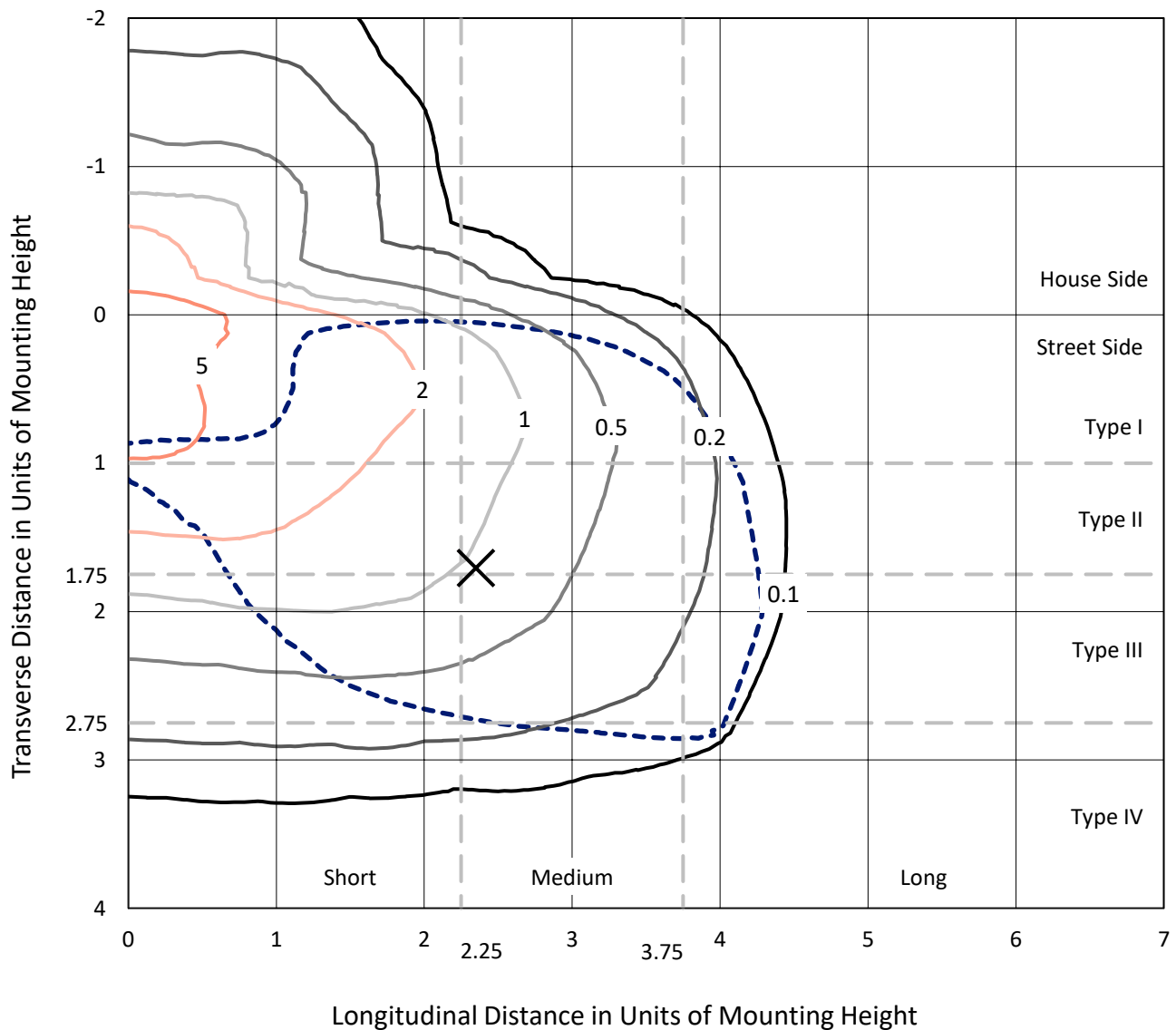


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

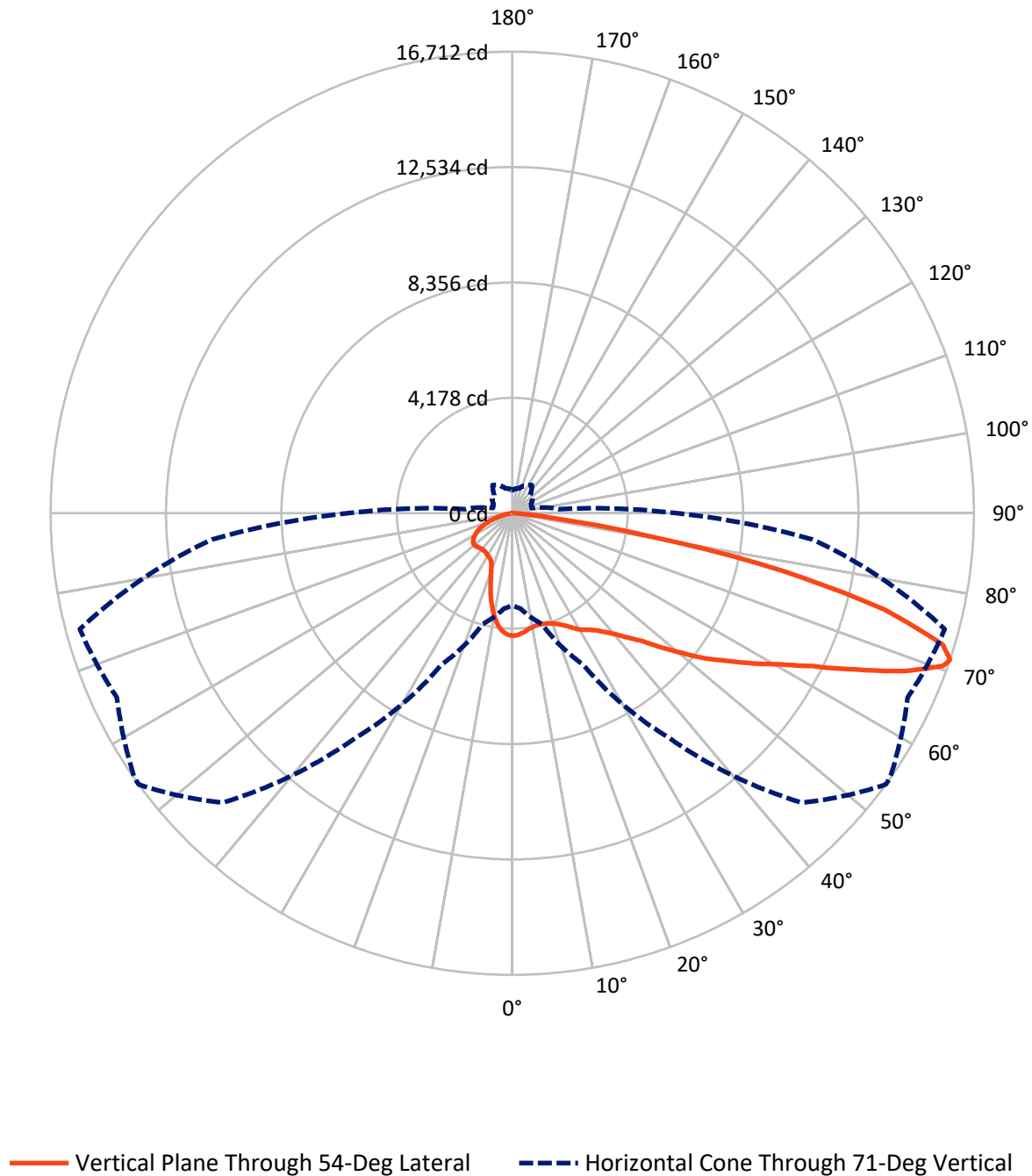


Based on 25 foot mounting height. Maximum calculated value = 7.2 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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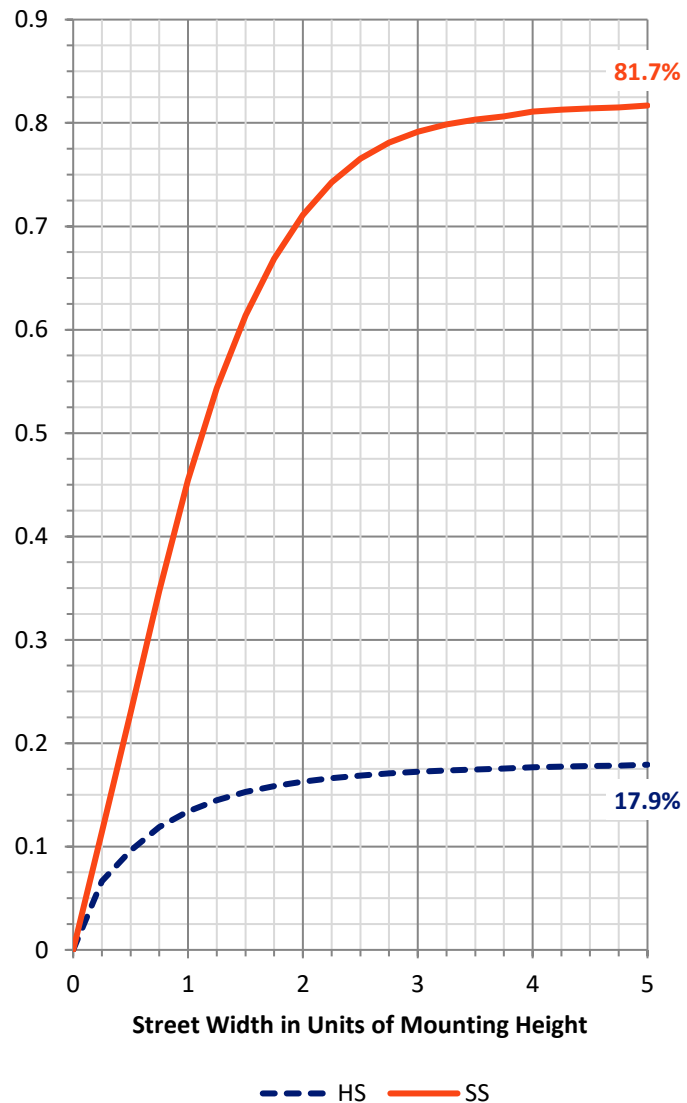
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4493.0	0.0	4493.0
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	20393.0	0.0	20393.0
	% Fixture	81.9	0.0	81.9
Total	Lumens	24886.0	0.0	24886.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	395.7	1.6
10°-20°	1044.8	4.2
20°-30°	1739.6	7.0
30°-40°	2572.3	10.3
40°-50°	3623.2	14.6
50°-60°	4851.6	19.5
60°-70°	6115.0	24.6
70°-80°	4176.6	16.8
80°-90°	367.3	1.5
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°	24886.0	100.0
0°-180°	24886.0	100.0

Coefficient of Utilization



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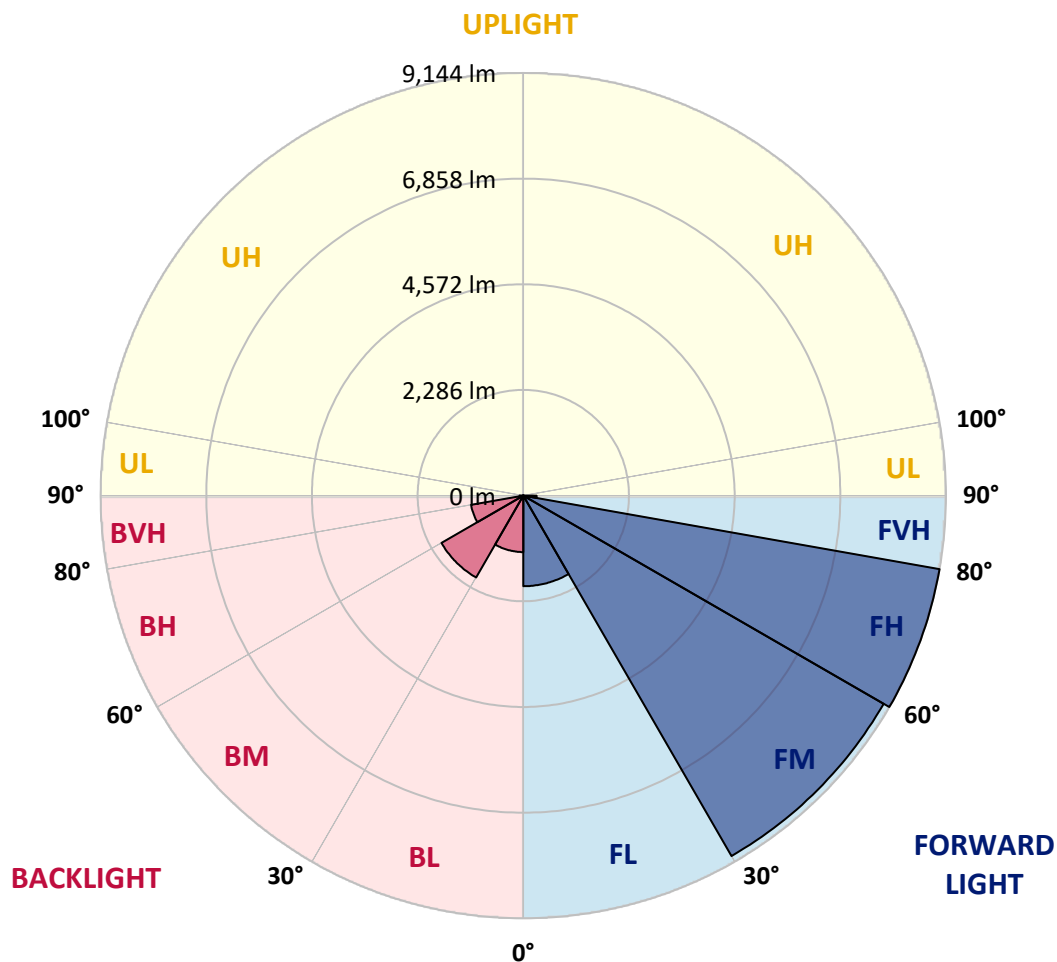
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1958.9	7.9			
FM	(30°-60°)	9002.9	36.2			
FH	(60°-80°)	9144.1	36.7			G4/12000
FVH	(80°-90°)	287.1	1.2			G3/500
BL	(0°-30°)	1221.1	4.9	B3/2500		
BM	(30°-60°)	2044.2	8.2	B2/2500		
BH	(60°-80°)	1147.5	4.6	B3/2500		G3/2500
BVH	(80°-90°)	80.2	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-G4

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	4440.0	4440.0	4440.0	4440.0	4440.0	4440.0	4440.0	4440.0	4440.0	4440.0	4440.0
2.5°	4289.5	4309.6	4315.0	4328.5	4356.7	4379.5	4402.4	4399.7	4432.0	4445.4	4457.5
5°	4098.6	4104.0	4124.1	4151.0	4200.8	4263.9	4325.8	4327.1	4406.4	4469.6	4500.5
7.5°	3958.8	3976.3	3989.7	4017.9	4070.4	4138.9	4237.1	4245.1	4386.3	4511.3	4577.1
10°	3867.4	3887.5	3902.3	3937.3	3989.7	4066.3	4172.5	4187.3	4371.5	4577.1	4692.7
12.5°	3784.0	3804.2	3817.6	3863.4	3931.9	4026.0	4145.6	4163.1	4376.9	4653.8	4819.1
15°	3835.1	3851.3	3845.9	3859.3	3905.0	4012.6	4156.4	4173.9	4397.0	4727.7	4944.1
17.5°	4062.3	4075.7	4031.4	3980.3	3958.8	4038.1	4190.0	4208.8	4437.3	4804.3	5071.8
20°	4397.0	4433.3	4336.5	4222.3	4118.8	4129.5	4259.9	4280.1	4493.8	4880.9	5202.2
22.5°	4832.5	4859.4	4741.1	4552.9	4362.1	4263.9	4364.8	4376.9	4578.5	4980.4	5344.7
25°	5344.7	5360.8	5196.8	4954.9	4679.3	4493.8	4508.6	4530.1	4718.3	5093.3	5471.1
27.5°	5842.1	5893.2	5703.6	5407.9	5044.9	4735.8	4706.2	4719.6	4870.2	5156.5	5558.4
30°	6432.2	6428.2	6227.9	5885.1	5420.0	4999.2	4893.0	4890.4	4952.2	5187.4	5621.6
32.5°	6902.7	6957.8	6761.5	6387.8	5848.8	5272.1	5022.1	5016.7	5015.4	5241.2	5715.7
35°	7437.7	7445.8	7265.6	6889.2	6312.6	5614.9	5202.2	5175.3	5144.4	5356.8	5843.4
37.5°	7916.2	7953.9	7788.5	7366.4	6768.3	5971.1	5449.6	5432.1	5338.0	5557.1	6047.7
40°	8289.9	8318.2	8218.7	7816.8	7217.2	6355.6	5764.1	5731.8	5617.6	5885.1	6320.6
42.5°	8412.3	8470.1	8509.1	8311.4	7733.4	6811.3	6151.3	6110.9	6023.5	6382.5	6635.2
45°	8421.7	8513.1	8718.8	8728.2	8252.3	7357.0	6602.9	6574.7	6568.0	7019.6	7077.4
47.5°	8350.4	8443.2	8788.7	8975.5	8714.7	7908.2	7254.9	7210.5	7214.5	7807.4	7573.5
50°	8178.4	8288.6	8708.0	9134.1	9076.3	8480.8	7943.1	7928.3	8011.7	8706.7	8088.3
52.5°	7854.4	7987.5	8624.7	9233.6	9345.2	8974.2	8725.5	8683.8	8894.8	9682.6	8651.5
55°	6957.8	7158.1	8319.5	9288.7	9600.6	9446.0	9429.9	9505.1	9784.7	10747.2	9271.2
57.5°	6490.0	6640.6	7656.8	9298.1	9923.2	9994.4	10252.5	10271.4	10760.7	11877.7	9971.6
60°	6234.6	6367.7	7293.9	9236.3	10373.5	10673.3	11094.0	11161.2	11713.7	13102.3	10697.5
62.5°	6011.4	6125.7	7076.1	9022.6	10881.6	11680.1	12184.2	12216.5	12795.8	14454.6	11414.0
65°	5485.9	5616.2	6637.9	8808.8	11319.9	12938.3	13630.6	13593.0	13947.9	15621.4	11862.9
67.5°	4777.4	4942.8	5819.2	8070.8	11536.3	14313.5	15259.8	15212.8	15085.1	16386.3	11992.0
70°	3872.8	3961.5	4772.1	6795.1	10671.9	15035.3	16546.3	16496.5	15789.5	16487.1	11381.7
71°	3332.4	3470.8	4155.1	6035.6	9952.8	14814.9	16711.6	16698.2	15790.8	16208.9	10922.0
72.5°	2601.1	2685.8	3290.7	4676.6	8459.3	13562.1	16303.0	16354.0	15448.0	15435.9	9974.3
75°	1645.4	1683.0	2064.8	2753.0	4641.7	9604.6	13916.9	14055.4	13716.6	12634.5	7417.5
77.5°	955.8	1004.1	1236.7	1622.5	2005.6	5213.0	9958.1	10108.7	9530.7	6956.5	3036.6
80°	556.5	610.3	814.6	942.3	920.8	1934.4	5070.5	5327.2	4126.8	1756.9	852.2
82.5°	309.2	345.5	572.6	574.0	490.6	631.8	1595.6	1669.5	1177.6	708.4	348.2
85°	224.5	254.1	369.7	334.7	235.2	271.5	555.2	582.1	475.9	298.4	112.9
87.5°	79.3	112.9	203.0	161.3	64.5	56.5	160.0	130.4	121.0	83.3	25.5
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°	4440.0	4440.0	4440.0	4440.0	4440.0	4440.0	4440.0	4440.0	4440.0	4440.0	4440.0
2.5°	4464.2	4466.9	4453.5	4429.3	4405.1	4374.2	4339.2	4312.3	4300.2	4298.9	4297.5
5°	4512.6	4519.3	4468.3	4393.0	4309.6	4207.5	4120.1	4020.6	3995.1	3954.8	3966.9
7.5°	4590.6	4586.6	4485.7	4325.8	4130.9	3914.4	3731.6	3625.4	3515.2	3484.3	3485.6
10°	4702.2	4676.6	4485.7	4188.7	3863.4	3542.1	3286.7	3125.4	3038.0	2965.4	2938.5
12.5°	4820.5	4755.9	4442.7	3996.4	3519.2	3125.4	2851.1	2633.4	2576.9	2517.8	2519.1
15°	4933.4	4825.8	4358.0	3726.2	3148.2	2680.4	2414.3	2283.9	2266.4	2273.1	2271.8
17.5°	5035.5	4875.6	4229.0	3425.1	2715.4	2298.7	2157.5	2166.9	2214.0	2247.6	2251.6
20°	5139.0	4905.1	4036.8	3021.9	2306.7	2067.4	2072.8	2146.8	2218.0	2263.7	2270.4
22.5°	5237.2	4918.6	3810.9	2632.0	2011.0	1969.3	2048.6	2127.9	2197.8	2242.2	2248.9
25°	5301.7	4887.7	3491.0	2224.7	1865.8	1934.4	2017.7	2084.9	2144.1	2189.8	2200.5
27.5°	5319.2	4788.2	3094.4	1895.4	1798.6	1900.8	1977.4	2027.1	2072.8	2115.8	2123.9
30°	5309.8	4641.7	2658.9	1701.8	1759.6	1861.8	1920.9	1957.2	2012.3	2045.9	2052.7
32.5°	5295.0	4470.9	2204.6	1598.3	1727.4	1825.5	1860.4	1892.7	1891.3	1877.9	1887.3
35°	5300.3	4266.6	1836.2	1536.5	1699.1	1798.6	1828.2	1787.8	1672.2	1666.9	1661.5
37.5°	5328.6	4065.0	1568.7	1493.5	1684.3	1794.6	1810.7	1625.2	1523.0	1476.0	1463.9
40°	5401.2	3829.7	1392.6	1461.2	1683.0	1825.5	1731.4	1543.2	1346.9	1255.5	1248.8
42.5°	5497.9	3598.5	1285.1	1441.0	1699.1	1872.5	1699.1	1427.6	1213.9	1160.1	1152.0
45°	5641.8	3333.7	1225.9	1431.6	1723.3	1890.0	1688.4	1342.9	1160.1	1117.1	1117.1
47.5°	5804.4	3081.0	1193.7	1424.9	1754.2	1877.9	1592.9	1316.0	1134.5	1139.9	1165.5
50°	5965.7	2861.9	1169.5	1410.1	1781.1	1871.2	1553.9	1314.7	1141.3	1209.8	1255.5
52.5°	6152.6	2707.3	1139.9	1385.9	1781.1	1828.2	1541.8	1341.6	1160.1	1180.2	1200.4
55°	6378.4	2658.9	1102.3	1333.5	1748.9	1720.6	1535.1	1380.5	1173.5	1126.5	1134.5
57.5°	6676.8	2736.9	1066.0	1267.6	1674.9	1609.1	1532.4	1391.3	1142.6	1103.6	1095.6
60°	7023.7	2891.5	1055.2	1200.4	1574.1	1513.6	1516.3	1360.4	1099.6	1059.3	1066.0
62.5°	7267.0	2984.2	1048.5	1149.3	1463.9	1408.8	1477.3	1322.7	1080.8	1045.8	1052.5
65°	7267.0	2871.3	986.7	1071.4	1321.4	1282.4	1430.3	1275.7	1056.6	1016.2	1009.5
67.5°	6991.4	2542.0	892.6	954.4	1164.1	1138.6	1364.4	1219.2	1020.3	989.4	973.2
70°	6273.6	1927.6	774.3	817.3	965.2	988.0	1279.7	1142.6	959.8	922.1	898.0
71°	5957.7	1679.0	724.5	747.4	888.5	922.1	1239.4	1110.3	932.9	879.1	836.1
72.5°	5348.7	1414.1	649.3	658.7	759.5	820.0	1154.7	1048.5	881.8	805.2	756.8
75°	4063.6	1032.4	522.9	517.5	561.9	650.6	977.3	934.2	772.9	669.4	641.2
77.5°	1755.6	561.9	391.2	395.2	381.8	493.3	768.9	802.5	662.7	544.4	518.9
80°	532.3	324.0	267.5	272.9	255.4	330.7	541.7	629.1	532.3	423.4	388.5
82.5°	272.9	193.6	182.8	180.1	162.7	186.8	328.0	430.2	380.4	264.8	233.9
85°	118.3	103.5	90.1	87.4	76.6	67.2	116.9	215.1	201.6	147.9	141.1
87.5°	29.6	26.9	17.5	16.1	9.4	1.3	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)