

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: P452920

Luminaire Tested: **GALN-SA3D-830-U-AFL**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P452920
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-24)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA3D-830-U-AFL
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(3) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18531 lumens
Efficiency: N/A
Efficacy: 100.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

Input Watts (W): 184
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

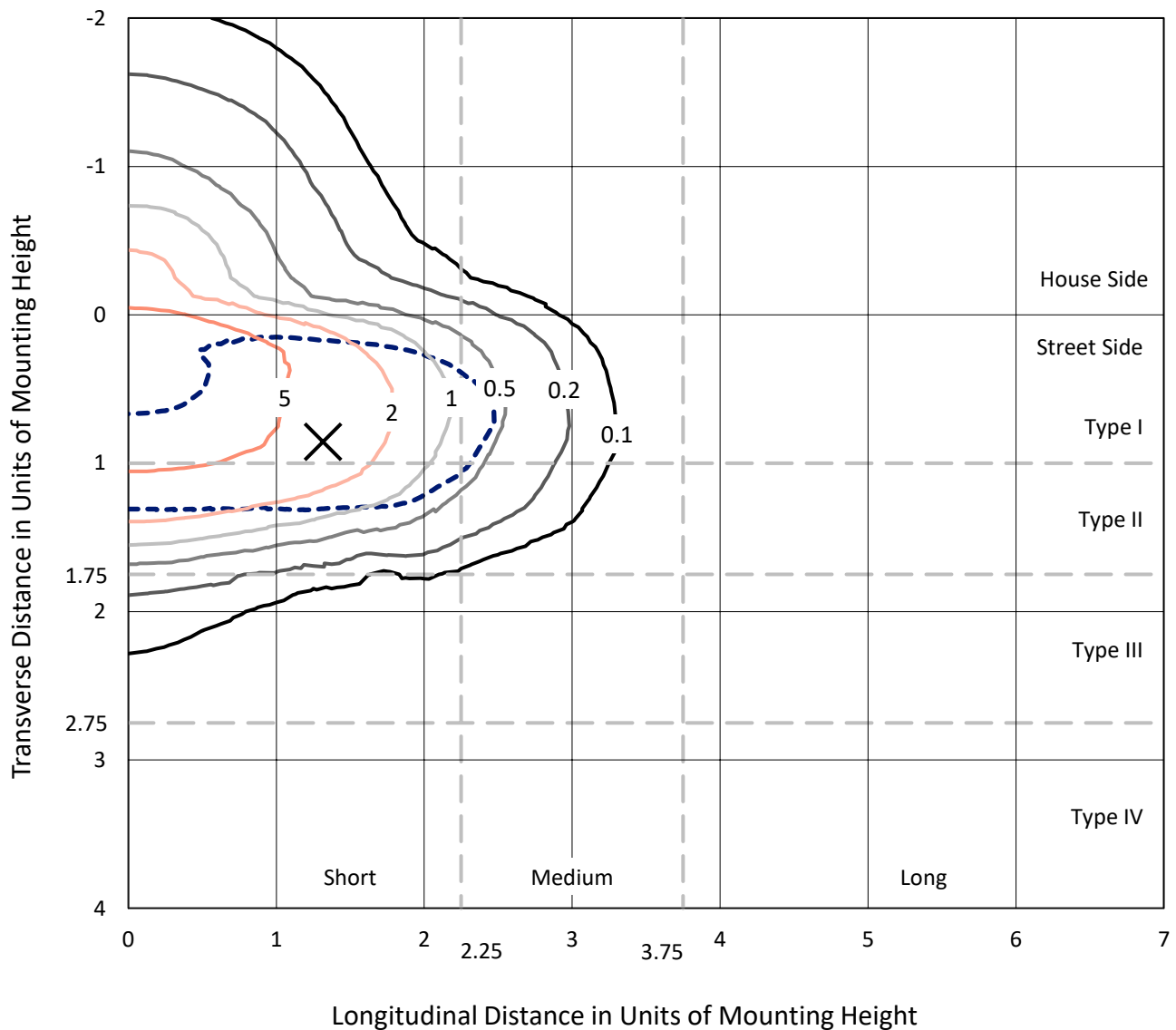


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

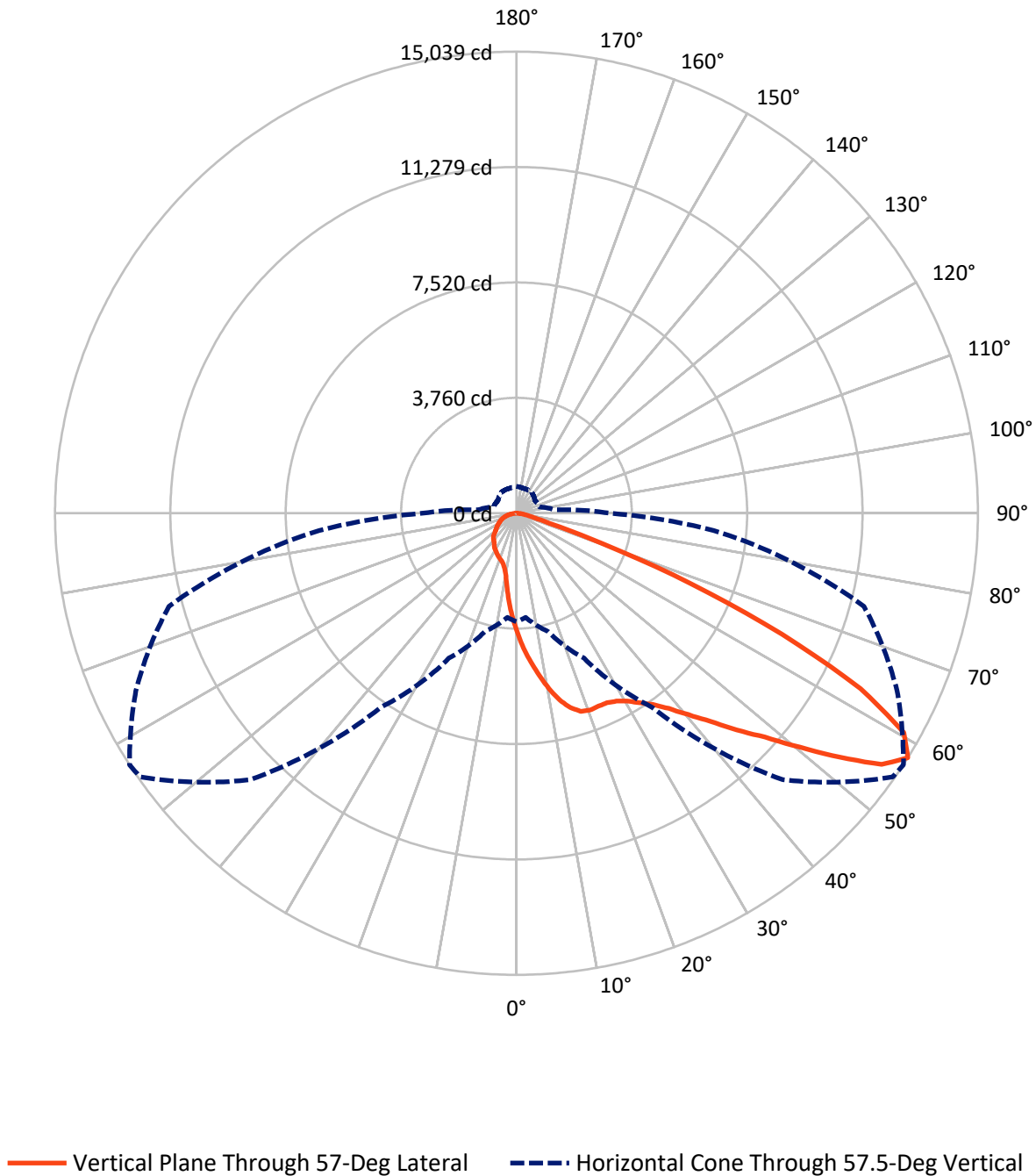


Based on 25 foot mounting height. Maximum calculated value = 9.5 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



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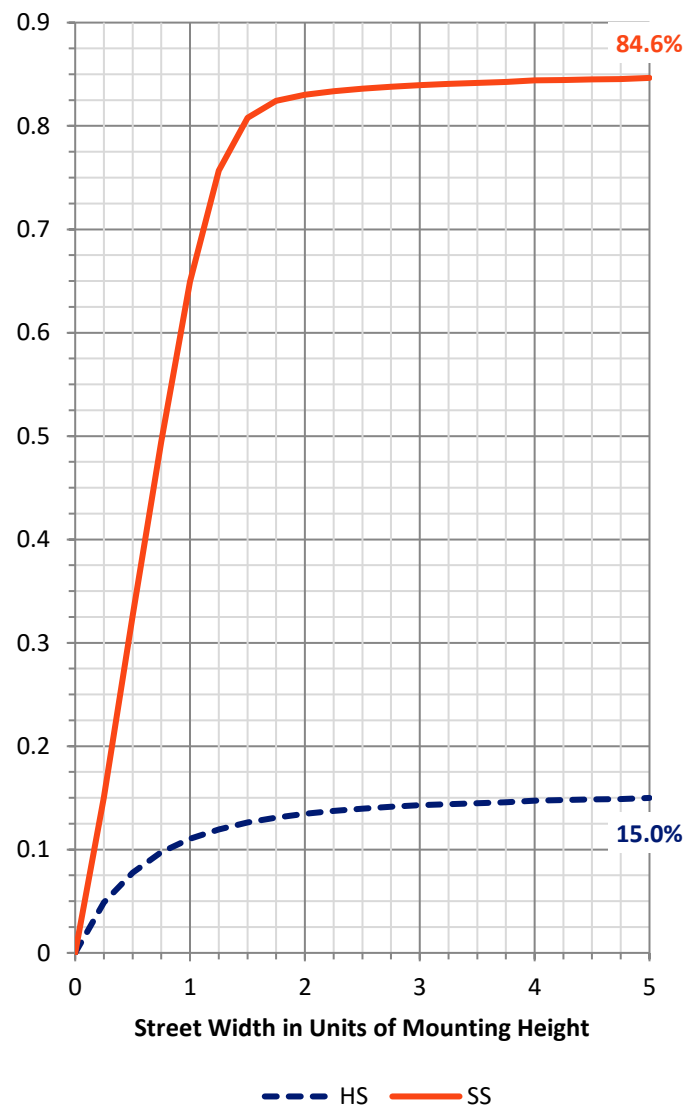
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2818.0	0.0	2818.0
	% Fixture	15.2	0.0	15.2
Street Side	Lumens	15713.0	0.0	15713.0
	% Fixture	84.8	0.0	84.8
Total	Lumens	18531.0	0.0	18531.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	374.2	2.0
10°-20°	1102.7	6.0
20°-30°	1831.1	9.9
30°-40°	2758.1	14.9
40°-50°	4141.0	22.3
50°-60°	4641.6	25.0
60°-70°	2716.5	14.7
70°-80°	803.5	4.3
80°-90°	162.4	0.9
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°	18531.0	100.0
0°-180°	18531.0	100.0

Coefficient of Utilization



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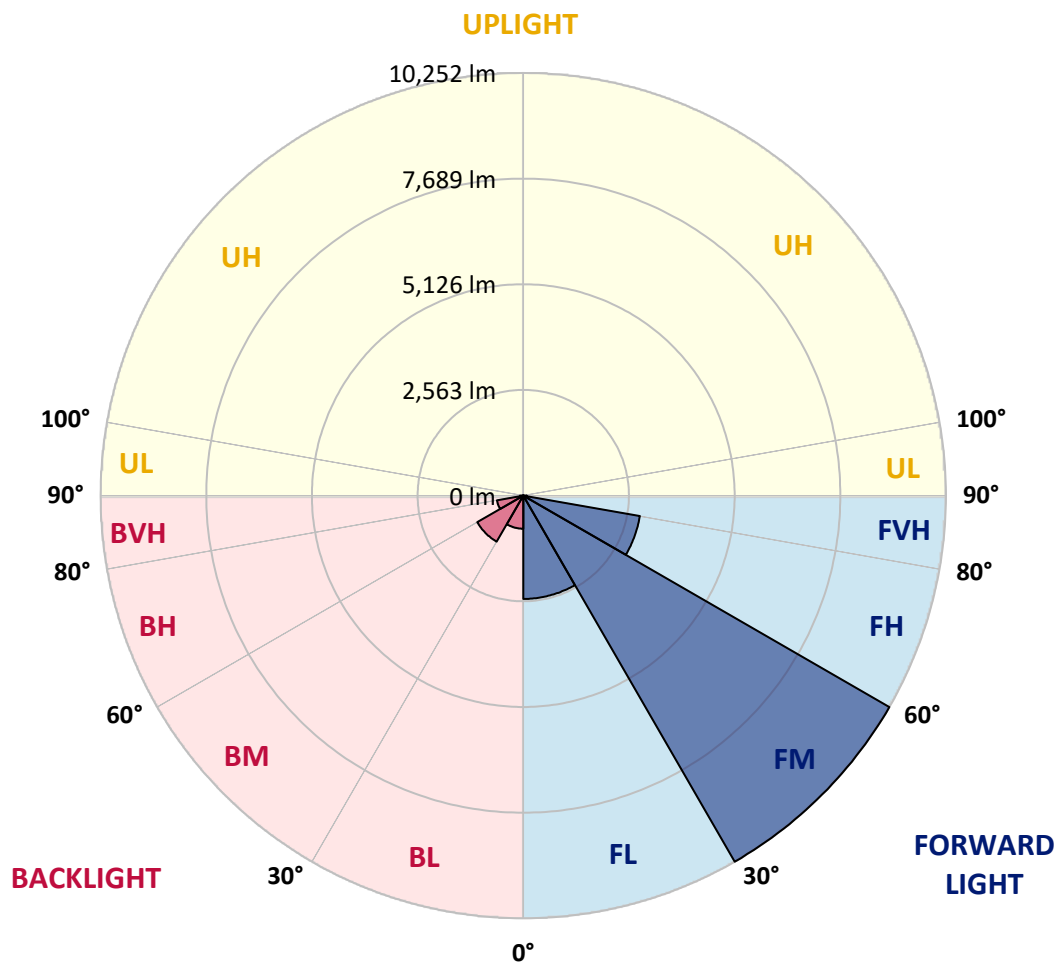
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2505.0	13.5			
FM	(30°-60°)	10252.2	55.3			
FH	(60°-80°)	2871.6	15.5			G2/5000
FVH	(80°-90°)	84.3	0.5			G1/100
BL	(0°-30°)	803.0	4.3	B2/1000		
BM	(30°-60°)	1288.5	7.0	B2/2500		
BH	(60°-80°)	648.4	3.5	B2/1000		G2/1000
BVH	(80°-90°)	78.1	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	3893.2	3893.2	3893.2	3893.2	3893.2	3893.2	3893.2	3893.2	3893.2	3893.2	3893.2
2.5°	4837.5	4784.8	4743.2	4706.7	4659.0	4530.2	4401.4	4399.3	4296.9	4138.6	3976.3
5°	5625.7	5554.7	5563.8	5450.2	5336.6	5150.0	4877.1	4862.9	4644.8	4348.6	4047.3
7.5°	6139.0	6140.0	6111.6	6046.7	5923.9	5711.9	5402.5	5332.5	5029.2	4579.9	4128.5
10°	6112.6	6140.0	6187.7	6243.4	6281.0	6176.5	5894.5	5809.3	5414.7	4859.8	4218.8
12.5°	5761.6	5804.2	5872.2	6012.2	6238.4	6410.8	6314.5	6245.5	5861.0	5138.8	4318.2
15°	5542.5	5567.9	5605.4	5699.7	5943.2	6356.0	6605.6	6569.1	6282.0	5454.3	4429.8
17.5°	5475.6	5500.9	5513.1	5570.9	5744.4	6167.4	6720.2	6785.1	6655.3	5744.4	4542.3
20°	5542.5	5554.7	5554.7	5589.2	5725.1	6056.8	6715.1	6846.0	6961.6	6092.3	4647.8
22.5°	5718.0	5723.1	5716.0	5728.1	5829.6	6087.2	6667.5	6829.8	7209.1	6387.5	4730.0
25°	6003.0	6011.2	5964.5	5936.1	6010.1	6221.1	6693.8	6842.9	7402.9	6669.5	4784.8
27.5°	6326.6	6336.8	6280.0	6214.0	6248.5	6386.5	6797.3	6931.2	7547.9	6947.4	4819.3
30°	6723.2	6727.3	6631.9	6552.8	6530.5	6633.0	6973.8	7098.6	7728.5	7275.1	4871.0
32.5°	7129.0	7159.4	7036.7	6925.1	6887.6	6919.0	7234.5	7355.2	7943.5	7627.0	4954.2
35°	7680.8	7685.9	7538.8	7402.9	7279.1	7319.7	7568.2	7655.4	8240.7	8033.8	5071.8
37.5°	8369.6	8416.2	8213.4	7959.8	7807.6	7748.8	7971.9	8067.3	8657.6	8532.9	5249.4
40°	9134.4	9151.6	8978.2	8819.9	8542.0	8371.6	8525.8	8629.2	9171.9	9128.3	5455.3
42.5°	9615.2	9652.7	9665.9	9649.7	9440.7	9154.7	9213.5	9262.2	9780.6	9687.2	5666.3
45°	9777.5	9833.3	10022.0	10421.6	10444.0	10162.0	10025.0	10071.7	10444.0	10251.2	5868.1
47.5°	9508.7	9604.1	9952.0	10771.6	11385.3	11406.6	10993.7	10891.3	11048.5	10718.8	6014.2
50°	8813.9	8834.1	9366.7	10553.5	11826.5	12596.4	12169.4	11978.7	11622.6	11064.7	6114.6
52.5°	7738.6	7762.0	8208.3	9540.1	11554.7	13428.2	13544.9	13204.1	12205.9	11333.6	6180.6
55°	5744.4	5879.3	6370.2	7657.5	10266.4	13350.1	14638.4	14444.6	12910.9	11546.6	6284.0
57.5°	3532.0	3408.3	3990.5	5209.8	7721.4	12276.9	14976.2	15039.0	13686.9	11725.1	6457.5
60°	1625.0	1649.4	1889.8	2687.1	4706.7	9604.1	14105.8	14503.5	14116.0	11719.0	6501.1
62.5°	1119.9	1097.5	1036.7	1179.7	2146.4	6074.0	11914.8	12588.3	13255.8	11354.9	6327.6
65°	1001.2	978.9	861.2	821.6	986.0	2647.5	8661.7	9511.7	11161.1	10435.8	5895.5
67.5°	935.2	904.8	783.1	706.0	704.0	1053.9	5107.4	6130.9	8278.3	8823.0	5108.4
70°	866.3	841.9	721.2	636.0	599.5	662.4	2244.8	2938.6	5375.1	6358.1	3979.4
72.5°	797.3	768.9	660.4	569.1	521.4	496.0	860.2	1118.8	3037.0	3812.0	2439.6
75°	696.9	682.7	590.4	515.3	463.6	400.7	545.7	622.8	1452.6	1750.8	1224.3
77.5°	609.6	594.4	524.4	450.4	412.8	325.6	387.5	423.0	612.7	710.1	552.8
80°	446.3	461.5	442.3	397.6	368.2	255.6	260.7	290.1	364.2	402.7	337.8
82.5°	283.0	311.4	340.8	306.3	279.0	201.9	180.6	191.7	248.5	263.7	150.1
85°	118.7	120.7	197.8	186.6	159.3	119.7	108.5	114.6	132.9	139.0	70.0
87.5°	45.6	44.6	70.0	64.9	49.7	34.5	34.5	38.5	52.7	48.7	22.3
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°	3893.2	3893.2	3893.2	3893.2	3893.2	3893.2	3893.2	3893.2	3893.2	3893.2	3893.2
2.5°	3906.3	3834.3	3691.3	3513.8	3383.9	3237.9	3109.0	3016.7	2982.2	2966.0	2935.6
5°	3903.3	3761.3	3465.1	3154.7	2905.2	2649.5	2433.5	2293.5	2281.3	2188.0	2178.9
7.5°	3904.3	3687.2	3215.6	2759.1	2378.7	2117.0	1938.5	1891.8	1836.0	1821.8	1828.9
10°	3907.4	3592.9	2947.8	2367.5	1999.3	1827.9	1760.9	1742.7	1744.7	1750.8	1751.8
12.5°	3911.4	3501.6	2669.8	2070.3	1786.3	1715.3	1708.2	1724.4	1741.7	1754.9	1757.9
15°	3916.5	3397.1	2399.0	1830.9	1679.8	1673.7	1697.0	1724.4	1748.8	1768.0	1771.1
17.5°	3910.4	3275.4	2171.8	1683.9	1621.0	1650.4	1688.9	1723.4	1745.7	1764.0	1766.0
20°	3896.2	3139.5	1952.7	1580.4	1584.4	1632.1	1673.7	1706.2	1730.5	1739.6	1746.7
22.5°	3841.4	2977.2	1762.0	1500.3	1540.8	1606.8	1656.5	1675.7	1648.4	1629.1	1634.1
25°	3748.1	2766.2	1584.4	1435.3	1501.3	1571.3	1622.0	1575.3	1553.0	1544.9	1548.9
27.5°	3631.4	2534.9	1450.5	1367.4	1450.5	1531.7	1517.5	1509.4	1499.2	1486.1	1489.1
30°	3505.7	2308.7	1336.9	1314.6	1395.8	1442.4	1448.5	1461.7	1450.5	1430.3	1438.4
32.5°	3389.0	2095.7	1250.7	1270.0	1357.2	1350.1	1395.8	1411.0	1359.3	1291.3	1294.3
35°	3289.6	1897.9	1185.8	1226.4	1291.3	1294.3	1340.0	1287.2	1231.4	1199.0	1201.0
37.5°	3214.5	1743.7	1143.2	1188.8	1207.1	1245.6	1221.3	1193.9	1186.8	1164.5	1165.5
40°	3169.9	1608.8	1115.8	1159.4	1156.4	1182.8	1104.6	1132.0	1142.2	1135.1	1136.1
42.5°	3125.3	1513.4	1087.4	1118.8	1117.8	1066.1	1048.9	1072.2	1098.6	1101.6	1099.6
45°	3089.8	1439.4	1058.0	1057.0	1077.3	996.1	991.0	1005.2	1042.8	1061.0	1060.0
47.5°	3050.2	1377.5	1013.4	985.0	991.0	952.5	944.4	950.5	996.1	1025.5	1033.6
50°	3000.5	1315.6	957.6	919.0	893.7	911.9	913.9	915.0	960.6	994.1	1001.2
52.5°	2960.9	1269.0	893.7	865.3	834.8	875.4	890.6	892.6	920.0	947.4	952.5
55°	2984.3	1242.6	830.8	810.5	783.1	837.9	867.3	871.3	877.4	897.7	900.8
57.5°	3054.3	1248.7	780.1	753.7	733.4	793.2	842.9	846.0	841.9	866.3	870.3
60°	3075.6	1245.6	742.5	690.8	678.6	745.6	807.4	813.5	812.5	848.0	855.1
62.5°	2986.3	1207.1	705.0	638.0	629.9	696.9	757.7	782.1	787.2	837.9	847.0
65°	2776.3	1128.0	655.3	582.2	582.2	645.1	710.1	743.5	757.7	825.7	835.8
67.5°	2499.4	1034.7	604.6	534.6	532.5	595.4	659.3	693.8	716.1	808.5	814.5
70°	2074.4	908.9	541.7	482.8	482.8	539.6	597.5	639.1	671.5	776.0	776.0
72.5°	1421.1	755.7	465.6	424.0	425.0	477.8	536.6	583.3	621.8	711.1	713.1
75°	898.7	590.4	382.4	361.1	365.2	414.9	475.7	524.4	601.5	703.0	706.0
77.5°	477.8	414.9	304.3	299.2	304.3	350.0	417.9	484.9	603.5	609.6	599.5
80°	309.4	294.2	240.4	230.3	232.3	282.0	372.3	460.5	484.9	491.0	468.6
82.5°	168.4	186.6	170.4	160.3	160.3	220.1	317.5	366.2	347.9	289.1	275.9
85°	72.0	87.2	88.3	77.1	74.0	135.9	213.0	199.8	185.6	177.5	175.5
87.5°	20.3	28.4	28.4	21.3	16.2	37.5	42.6	12.2	0.0	1.0	2.0
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)