

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: P453400

Luminaire Tested: **GALN-SA4B-830-U-T2R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453400
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-6)
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-T2R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18230 lumens
Efficiency: N/A
Efficacy: 111.2 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): 164
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

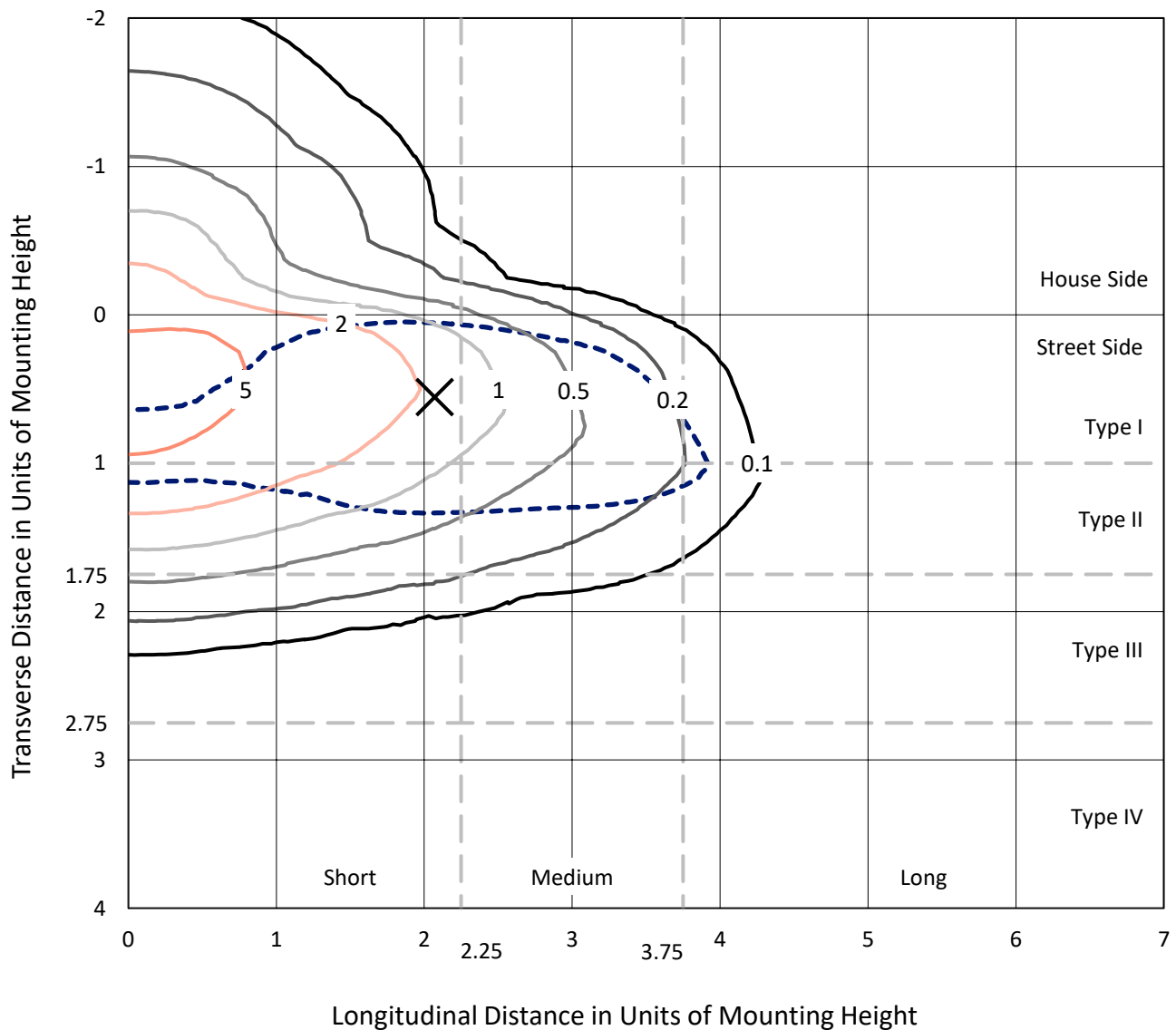


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

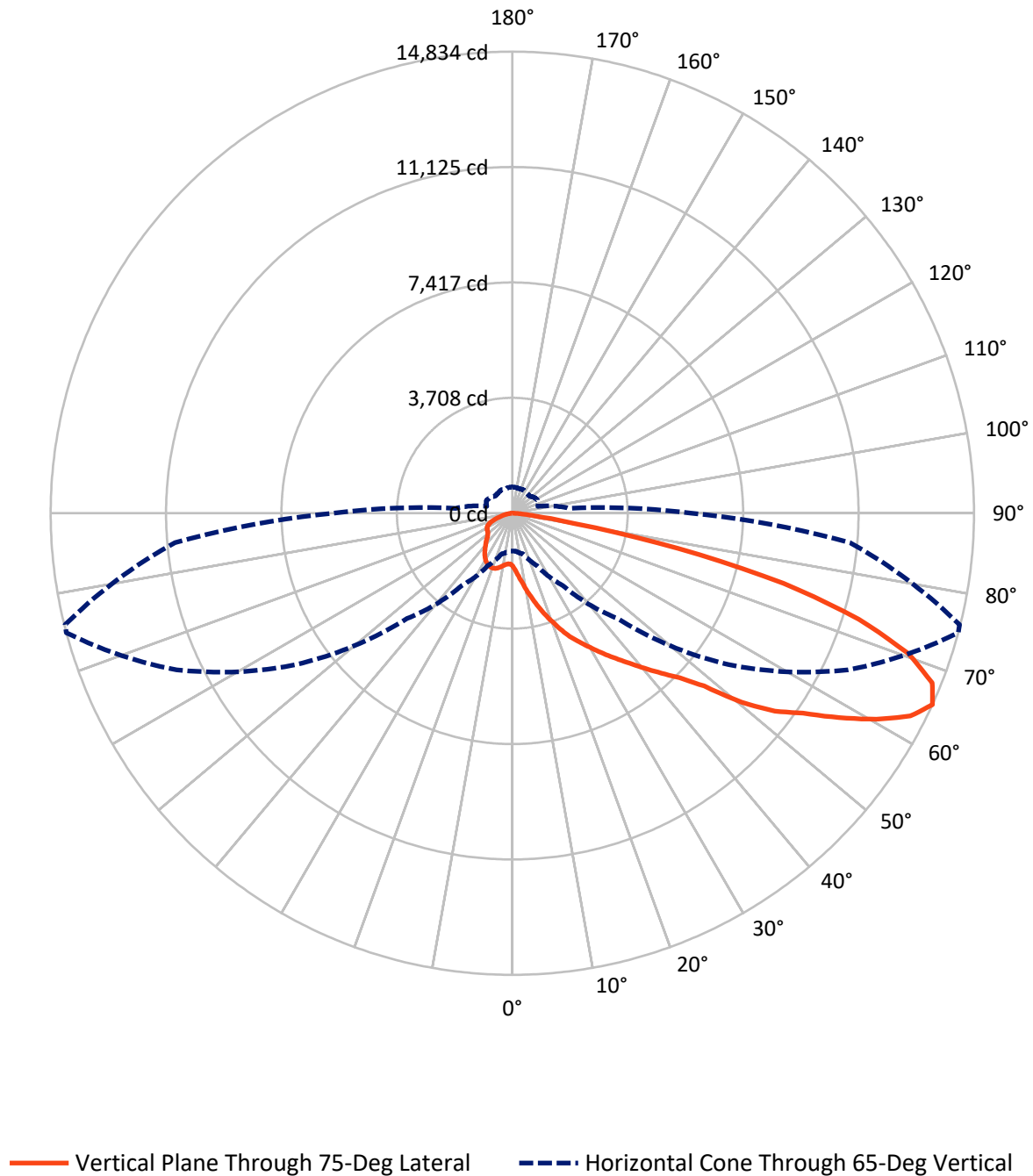


Based on 25 foot mounting height. Maximum calculated value = 7 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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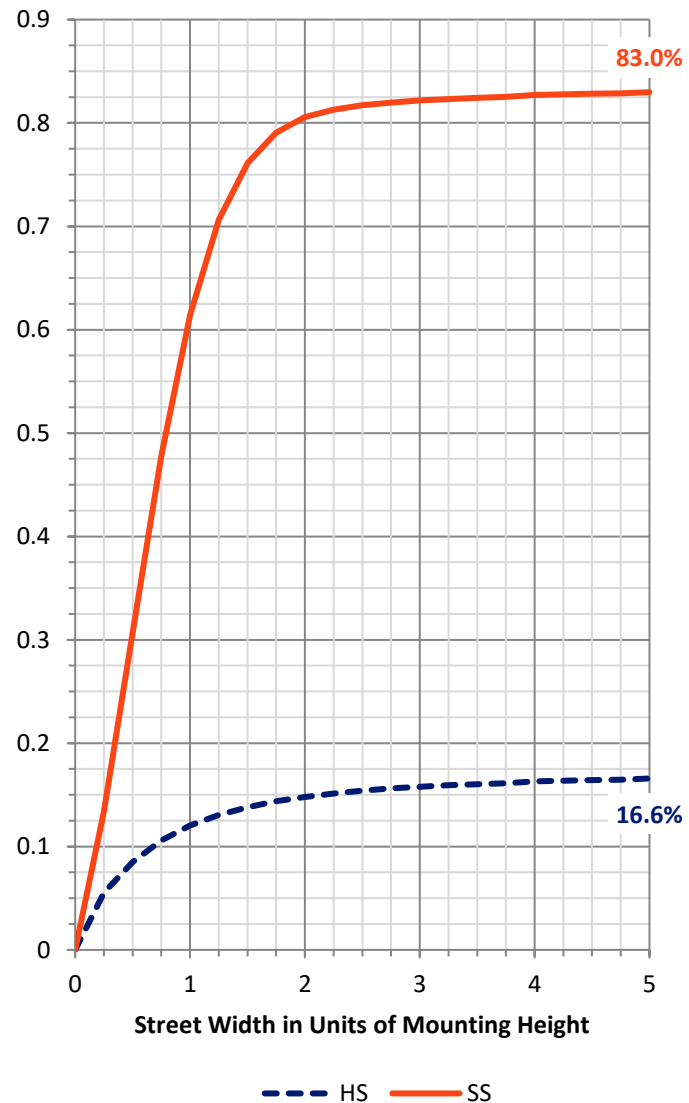
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3064.7	0.0	3064.7
	% Fixture	16.8	0.0	16.8
Street Side	Lumens	15165.3	0.0	15165.3
	% Fixture	83.2	0.0	83.2
Total	Lumens	18230.0	0.0	18230.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.8	1.1
10°-20°	806.1	4.4
20°-30°	1557.0	8.5
30°-40°	2529.1	13.9
40°-50°	3479.0	19.1
50°-60°	4107.5	22.5
60°-70°	3598.8	19.7
70°-80°	1718.1	9.4
80°-90°	228.6	1.3
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°	18230.0	100.0
0°-180°	18230.0	100.0

Coefficient of Utilization



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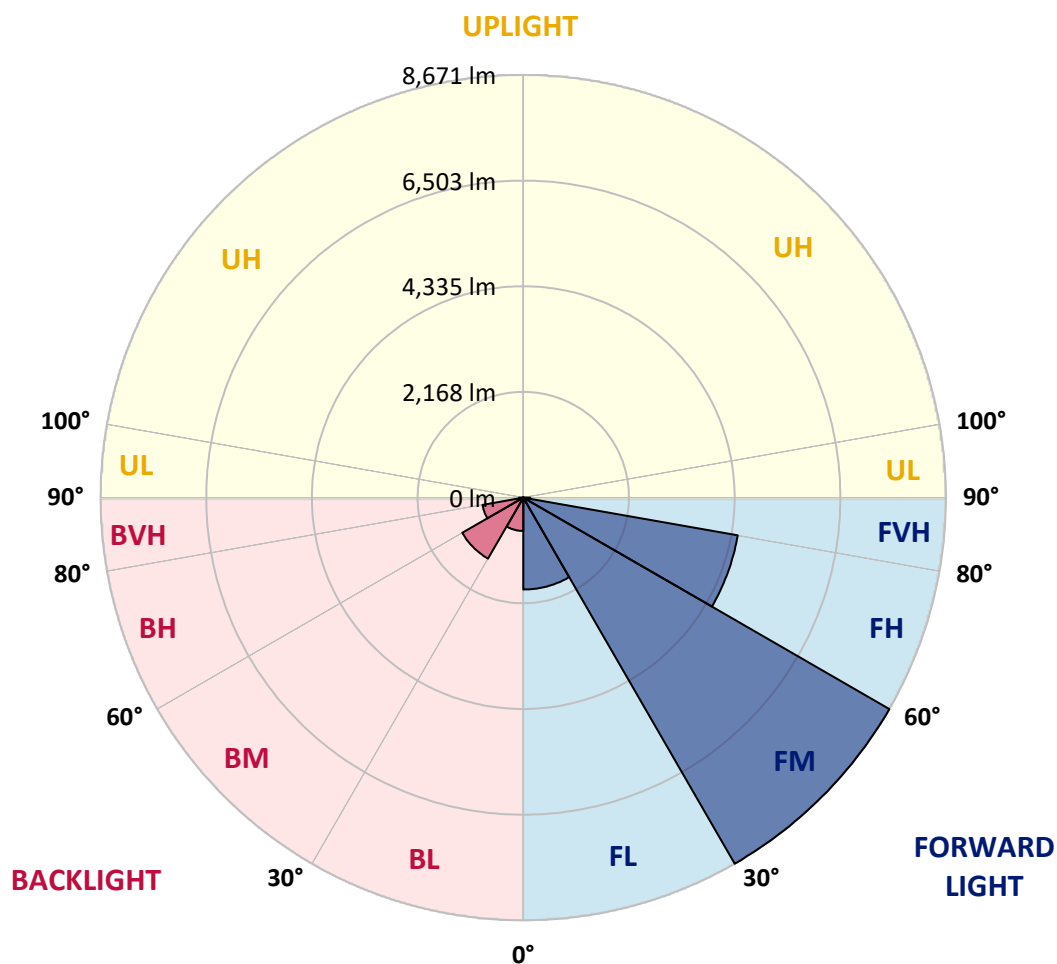
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1884.7	10.3			
FM	(30°-60°)	8670.6	47.6			
FH	(60°-80°)	4467.2	24.5			G2/5000
FVH	(80°-90°)	142.9	0.8			G2/225
BL	(0°-30°)	684.2	3.8	B2/1000		
BM	(30°-60°)	1445.0	7.9	B2/2500		
BH	(60°-80°)	849.8	4.7	B2/1000		G2/1000
BVH	(80°-90°)	85.7	0.5			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°	65°	75°	76°	85°
0°	1693.8	1693.8	1693.8	1693.8	1693.8	1693.8	1693.8	1693.8	1693.8	1693.8	1693.8
2.5°	2250.5	2235.7	2219.8	2176.3	2129.9	2077.4	2002.3	1930.1	1834.2	1831.2	1760.0
5°	2874.4	2864.5	2794.3	2753.8	2646.0	2502.6	2381.0	2192.1	2017.1	1996.4	1857.9
7.5°	3447.9	3409.3	3382.7	3309.5	3202.7	3018.8	2783.4	2528.3	2235.7	2208.0	1978.6
10°	3880.0	3876.1	3862.2	3798.9	3718.8	3535.9	3274.9	2909.0	2512.5	2458.1	2124.9
12.5°	4203.3	4206.3	4204.3	4203.3	4146.0	3990.8	3708.0	3322.3	2792.3	2753.8	2294.0
15°	4415.9	4445.6	4457.5	4506.9	4511.8	4408.0	4164.8	3721.8	3107.8	3050.4	2475.9
17.5°	4556.3	4571.2	4626.5	4710.6	4778.8	4760.0	4543.5	4091.6	3430.1	3334.2	2664.8
20°	4690.8	4716.5	4759.0	4873.7	4994.4	5049.8	4897.5	4470.3	3749.5	3688.2	2873.4
22.5°	4970.6	5007.2	5022.1	5080.4	5183.2	5281.1	5211.9	4833.2	4099.5	4016.5	3094.9
25°	5444.3	5482.8	5441.3	5427.5	5461.1	5509.5	5494.7	5175.3	4429.8	4311.1	3304.5
27.5°	6061.3	6066.2	5985.1	5908.0	5825.0	5800.2	5754.8	5478.9	4716.5	4617.6	3515.1
30°	6723.8	6700.0	6565.6	6426.1	6285.7	6147.3	6016.8	5771.6	5035.9	4922.2	3721.8
32.5°	7338.8	7325.9	7176.6	6960.1	6722.8	6592.3	6328.3	6067.2	5378.0	5268.3	3934.4
35°	7799.6	7818.4	7654.2	7417.9	7158.8	7043.2	6709.9	6377.7	5732.0	5612.4	4165.8
37.5°	8126.9	8117.0	7971.6	7766.9	7539.5	7438.7	7155.9	6716.9	6112.7	5998.0	4418.9
40°	8243.5	8237.6	8129.8	7980.5	7836.2	7800.6	7622.6	7082.7	6548.8	6414.3	4723.4
42.5°	8169.4	8182.2	8111.0	8070.5	8043.8	8069.5	8086.3	7562.3	7024.4	6900.8	5053.7
45°	7942.0	7935.0	7925.2	7991.4	8141.7	8310.8	8545.1	8015.1	7541.5	7442.6	5496.7
47.5°	7535.6	7585.0	7609.7	7792.7	8120.9	8521.4	9073.1	8622.2	8292.0	8206.0	6172.0
50°	6967.0	7006.6	7152.9	7478.2	7967.7	8600.5	9589.3	9615.0	9543.8	9382.6	6905.7
52.5°	6079.1	6140.4	6442.0	7038.2	7653.2	8567.9	9901.7	10466.3	10560.3	10439.6	7628.5
55°	5085.3	5171.4	5489.8	6271.9	7220.1	8389.9	10117.3	10959.7	11334.5	11222.8	8324.6
57.5°	4112.4	4203.3	4530.6	5288.0	6464.7	7996.3	10258.7	11509.5	12388.5	12243.2	9190.8
60°	3082.1	3177.0	3457.8	4238.0	5388.9	7227.1	10162.8	11986.1	13441.6	13379.3	10058.0
62.5°	1988.5	2093.3	2337.5	2983.2	4142.0	6176.0	9649.6	12249.1	14353.3	14278.1	10690.8
65°	1211.3	1223.1	1357.6	1852.0	2834.9	4781.8	8475.9	11900.1	14833.8	14811.1	10883.6
67.5°	783.1	801.9	863.2	1109.4	1699.7	3321.3	6777.2	10748.1	14553.0	14545.1	10485.1
70°	661.5	667.4	695.1	748.5	987.8	2014.2	4759.0	8912.0	13486.1	13486.1	9527.0
72.5°	591.3	599.2	609.1	625.9	705.0	1141.1	2839.8	6937.4	11644.0	11721.1	8109.1
75°	536.9	534.9	540.9	543.8	601.2	745.5	1468.4	5130.8	9007.9	8853.6	5872.4
77.5°	459.8	462.8	459.8	472.6	531.0	567.6	745.5	3443.0	5459.1	5259.4	2947.6
80°	377.7	382.7	387.6	395.5	453.9	431.1	447.9	1569.2	2019.1	1976.6	910.7
82.5°	283.8	290.7	298.6	317.4	357.0	284.8	282.8	670.4	728.7	667.4	335.2
85°	114.7	135.5	204.7	223.5	224.5	156.2	174.0	279.8	297.6	290.7	131.5
87.5°	26.7	31.6	66.2	99.9	92.0	58.3	64.3	91.0	103.8	95.9	44.5
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°	1693.8	1693.8	1693.8	1693.8	1693.8	1693.8	1693.8	1693.8	1693.8	1693.8	1693.8
2.5°	1727.4	1692.8	1633.5	1588.0	1555.4	1526.7	1508.9	1498.0	1494.1	1493.1	1494.1
5°	1785.8	1724.4	1630.5	1571.2	1538.6	1519.8	1508.9	1507.9	1508.9	1509.9	1506.9
7.5°	1865.8	1777.8	1655.2	1599.9	1575.1	1561.3	1556.4	1554.4	1555.4	1554.4	1554.4
10°	1972.6	1852.0	1703.7	1646.3	1625.6	1609.8	1601.8	1596.9	1592.9	1589.0	1587.0
12.5°	2090.3	1934.1	1756.1	1700.7	1671.1	1646.3	1628.5	1615.7	1606.8	1597.9	1595.9
15°	2221.8	2021.1	1814.4	1737.3	1694.8	1658.2	1627.5	1606.8	1591.0	1578.1	1577.1
17.5°	2347.4	2103.2	1854.0	1754.1	1691.8	1640.4	1599.9	1571.2	1551.4	1534.6	1532.6
20°	2481.9	2181.3	1871.8	1743.2	1662.2	1599.9	1546.5	1511.9	1489.1	1470.3	1467.4
22.5°	2617.3	2247.5	1869.8	1708.6	1610.7	1537.6	1481.2	1444.6	1417.9	1399.1	1392.2
25°	2746.9	2300.9	1845.1	1653.3	1539.5	1463.4	1406.1	1372.4	1348.7	1326.0	1326.0
27.5°	2863.5	2332.6	1798.6	1586.0	1466.4	1386.3	1340.8	1310.1	1288.4	1273.6	1264.7
30°	2978.2	2347.4	1735.3	1501.0	1389.2	1321.0	1284.4	1266.6	1246.9	1230.1	1228.1
32.5°	3081.1	2344.4	1656.2	1417.9	1316.1	1267.6	1252.8	1239.0	1218.2	1194.5	1188.5
35°	3180.9	2324.6	1562.3	1327.0	1254.8	1236.0	1239.9	1220.2	1182.6	1152.9	1148.0
37.5°	3289.7	2289.0	1459.5	1252.8	1203.4	1221.2	1231.0	1187.5	1126.2	1079.8	1068.9
40°	3415.3	2248.5	1352.7	1178.6	1162.8	1207.3	1207.3	1127.2	1043.2	1014.5	1006.6
42.5°	3562.6	2214.9	1263.7	1116.3	1129.2	1173.7	1168.7	1047.1	1012.5	997.7	993.7
45°	3796.0	2203.0	1171.7	1062.0	1101.5	1134.1	1093.6	1019.4	999.7	987.8	983.8
47.5°	4164.8	2216.9	1090.6	1021.4	1069.9	1094.6	1009.6	1000.7	986.8	970.0	968.0
50°	4506.9	2204.0	1033.3	998.7	1042.2	1047.1	974.9	977.9	970.0	951.2	947.3
52.5°	4786.7	2163.5	996.7	986.8	1018.5	964.1	942.3	953.2	950.2	926.5	922.5
55°	5094.2	2138.8	978.9	986.8	1002.6	891.9	911.7	927.5	923.5	906.7	905.7
57.5°	5467.0	2143.7	966.0	989.8	986.8	855.3	881.0	899.8	898.8	893.9	893.9
60°	5848.7	2145.7	946.3	988.8	968.0	826.6	849.4	876.1	878.0	881.0	881.0
62.5°	5975.3	2059.6	907.7	971.0	926.5	798.9	819.7	856.3	854.3	862.2	863.2
65°	5738.9	1821.4	850.4	930.5	873.1	779.2	797.0	830.6	819.7	840.5	844.4
67.5°	5223.8	1506.9	761.4	857.3	813.8	758.4	782.1	795.0	775.2	815.8	816.7
70°	4514.8	1176.7	648.6	753.5	746.5	736.6	770.3	750.5	722.8	772.2	762.4
72.5°	3775.2	898.8	518.1	616.0	656.6	704.0	749.5	693.1	654.6	669.4	651.6
75°	2835.8	664.5	416.3	482.5	546.8	657.5	730.7	623.9	564.6	550.8	546.8
77.5°	1445.6	434.1	311.5	360.9	410.3	594.3	705.0	542.8	467.7	445.9	436.1
80°	516.1	269.9	219.5	249.2	276.9	511.2	616.0	448.9	362.9	358.9	362.9
82.5°	239.3	174.0	147.3	163.2	164.1	341.1	469.7	335.2	275.9	419.2	354.0
85°	102.8	87.0	83.1	81.1	75.1	152.3	264.0	180.0	280.8	125.6	115.7
87.5°	30.7	34.6	30.7	22.7	16.8	16.8	26.7	9.9	6.9	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)