

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: P451317

Luminaire Tested: **GALN-SA2A-830-U-T4FT-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P451317
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-29)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA2A-830-U-T4FT-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(2) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5262 lumens
Efficiency: N/A
Efficacy: 83.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

Input Watts (W): 63
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

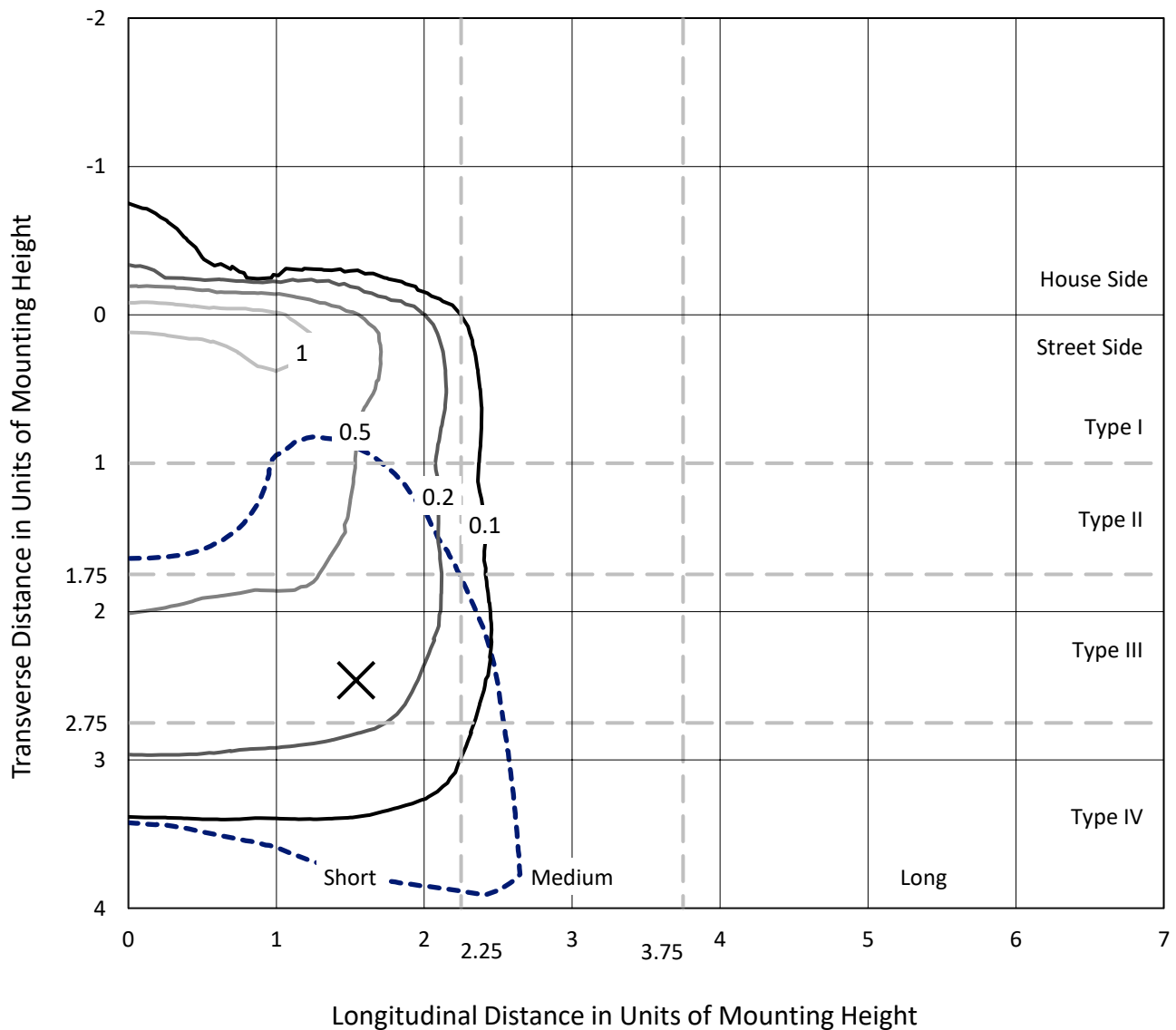


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Iso-Footcandle Lines of Horizontal Illumination

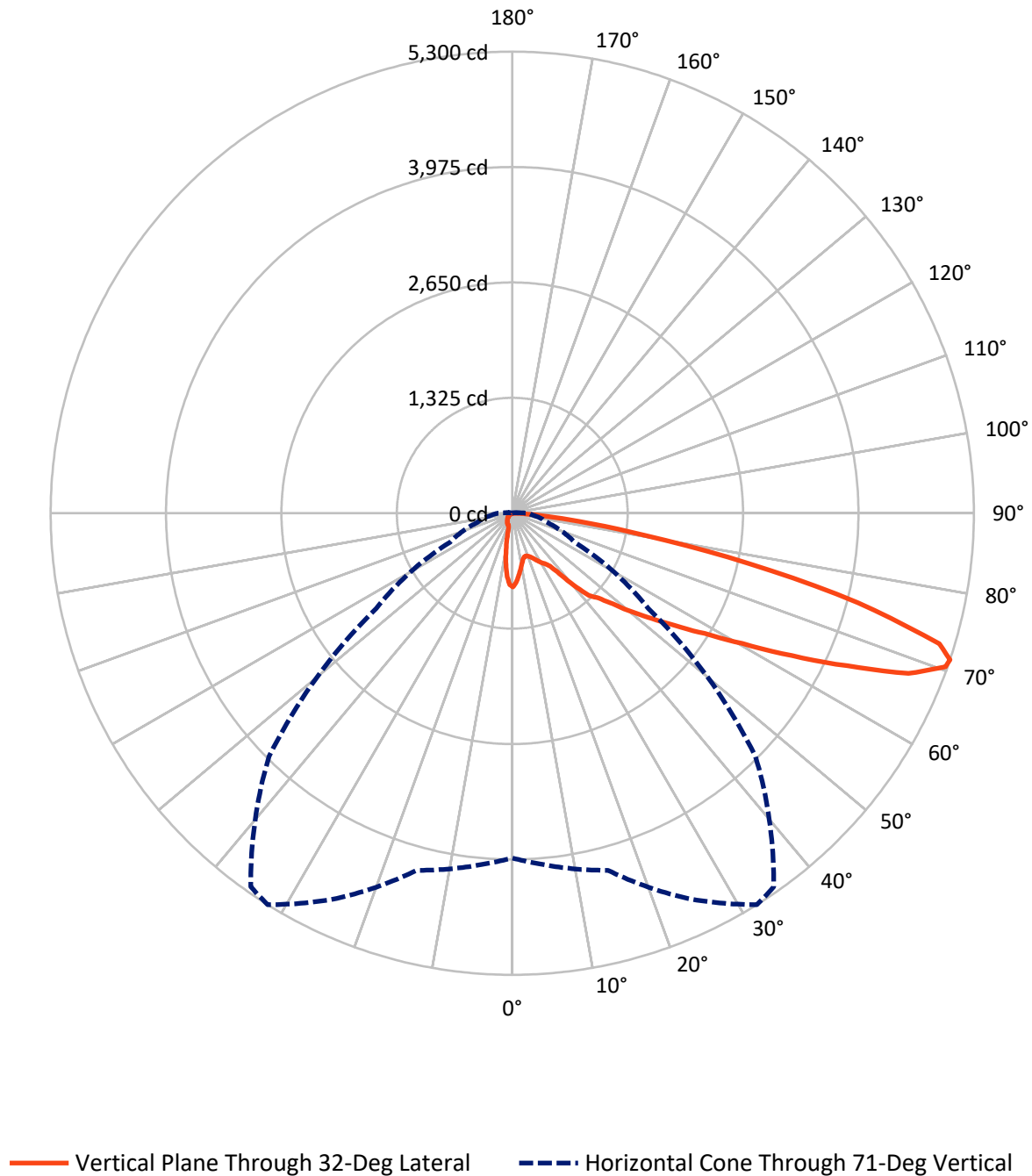
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.4 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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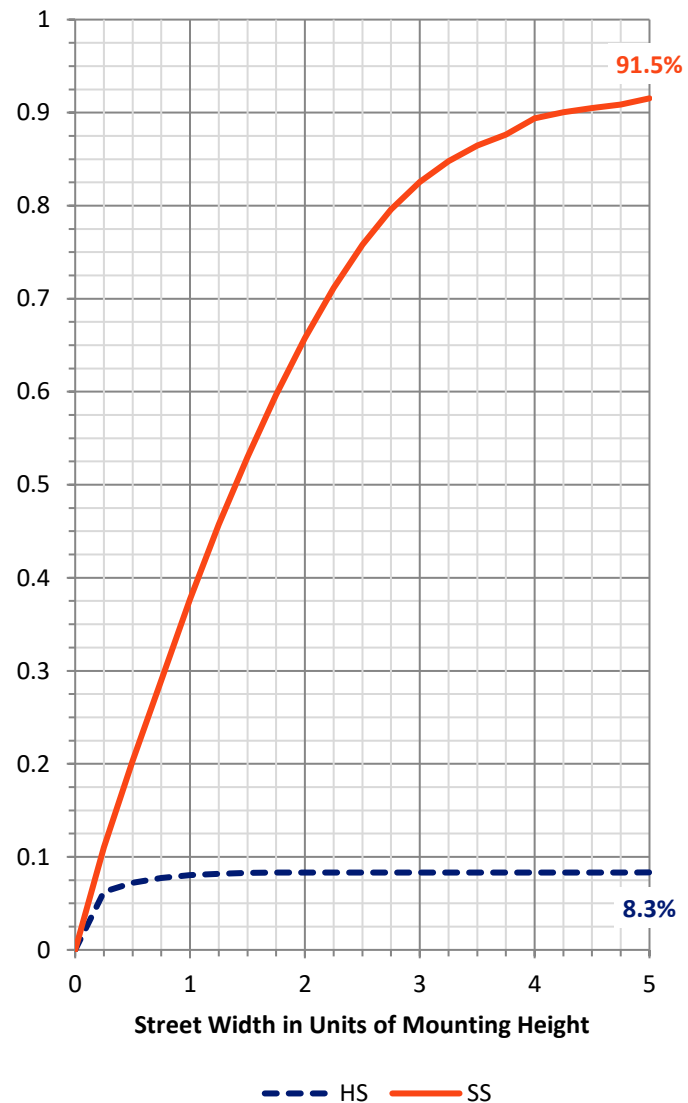
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	440.7	0.0	440.7
	% Fixture	8.4	0.0	8.4
Street Side	Lumens	4821.3	0.0	4821.3
	% Fixture	91.6	0.0	91.6
Total	Lumens	5262.0	0.0	5262.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.8	1.3
10°-20°	149.3	2.8
20°-30°	232.3	4.4
30°-40°	387.0	7.4
40°-50°	720.0	13.7
50°-60°	1155.9	22.0
60°-70°	1554.8	29.5
70°-80°	922.5	17.5
80°-90°	71.3	1.4
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°	5262.0	100.0
0°-180°	5262.0	100.0

Coefficient of Utilization



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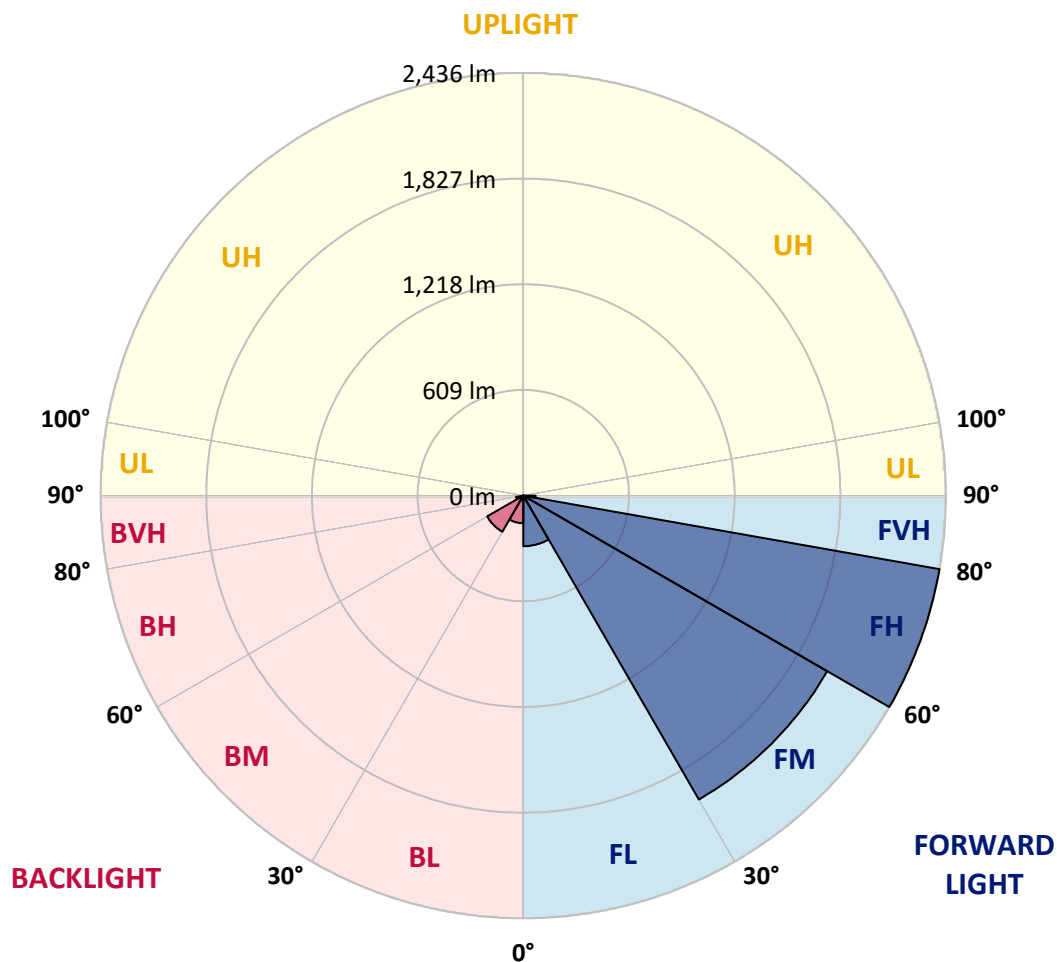
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	291.7	5.5			
FM	(30°-60°)	2022.5	38.4			
FH	(60°-80°)	2436.1	46.3			G2/5000
FVH	(80°-90°)	71.0	1.3			G1/100
BL	(0°-30°)	158.8	3.0	B1/500		
BM	(30°-60°)	240.4	4.6	B1/1000		
BH	(60°-80°)	41.2	0.8	B0/110		G0/110
BVH	(80°-90°)	0.3	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	32°	35°	45°	55°	65°	75°	85°
0°	846.2	846.2	846.2	846.2	846.2	846.2	846.2	846.2	846.2	846.2	846.2
2.5°	784.8	792.9	791.7	794.5	801.4	804.2	811.9	820.4	832.1	840.2	845.4
5°	702.8	708.9	709.7	723.8	730.7	738.4	761.0	785.6	813.1	834.9	849.4
7.5°	615.2	618.4	624.9	643.4	660.8	668.5	702.8	745.6	788.9	829.7	855.9
10°	542.9	546.5	558.2	578.0	594.2	604.3	651.9	705.6	766.2	826.8	865.2
12.5°	501.7	503.7	508.1	525.9	546.5	557.4	608.7	670.1	748.1	828.0	880.9
15°	498.8	498.0	492.8	500.1	518.6	529.9	580.0	645.9	731.9	832.1	899.5
17.5°	513.8	511.8	499.2	499.2	514.6	523.9	567.9	632.9	723.8	841.4	925.8
20°	536.8	533.6	513.0	511.4	526.3	536.0	575.2	633.8	725.4	858.7	960.9
22.5°	565.9	562.3	531.2	532.0	548.1	557.8	596.2	648.3	735.5	880.1	998.5
25°	603.9	599.8	563.1	561.4	578.4	586.9	627.3	674.1	749.7	906.8	1047.8
27.5°	654.3	645.9	601.8	599.4	617.6	628.5	664.9	708.9	774.7	943.6	1114.0
30°	696.0	686.7	644.7	638.2	657.6	666.1	703.6	755.7	824.0	1007.8	1205.7
32.5°	750.5	736.7	687.5	670.5	691.1	702.0	759.8	843.0	897.1	1075.6	1314.8
35°	873.3	864.8	804.6	745.2	744.0	757.8	842.6	931.0	972.2	1181.5	1463.4
37.5°	1049.0	1042.9	979.1	899.5	876.5	870.0	943.2	1028.0	1092.2	1326.9	1636.3
40°	1253.0	1238.8	1180.3	1112.8	1082.9	1063.9	1061.9	1172.2	1248.9	1524.4	1816.4
42.5°	1399.2	1373.3	1302.2	1297.4	1290.9	1271.1	1213.8	1383.0	1451.3	1736.9	2009.1
45°	1552.7	1513.5	1407.7	1389.5	1387.1	1385.8	1443.2	1632.6	1671.8	1967.1	2207.0
47.5°	1671.8	1640.7	1553.9	1545.8	1555.9	1583.4	1746.5	1897.6	1889.5	2172.3	2373.0
50°	1830.6	1807.1	1710.6	1725.9	1778.1	1822.9	2088.7	2186.4	2068.5	2333.8	2493.8
52.5°	2018.0	1974.8	1885.1	1926.7	2006.7	2081.4	2451.8	2439.3	2194.1	2455.4	2583.9
55°	2180.4	2149.7	2119.0	2162.2	2281.7	2375.0	2779.8	2628.7	2285.4	2553.2	2623.5
57.5°	2455.0	2447.8	2416.2	2460.3	2605.3	2702.2	3073.4	2775.7	2343.9	2604.1	2577.0
60°	2861.4	2849.7	2791.1	2847.2	3036.3	3188.5	3344.1	2907.8	2357.3	2584.3	2443.3
62.5°	3350.1	3310.1	3260.0	3342.8	3602.2	3669.2	3598.9	2986.2	2307.6	2426.7	2121.0
65°	3806.5	3765.3	3766.6	3941.0	4223.4	4269.0	3896.2	2974.5	2162.2	2032.1	1564.4
67.5°	4155.9	4149.1	4198.3	4538.8	4908.0	4876.5	4162.0	2799.2	1731.2	1317.2	831.3
70°	4173.7	4187.0	4328.4	4903.2	5278.0	5227.9	4139.4	2275.3	1079.3	605.9	327.6
71°	3958.8	4048.5	4244.0	4891.9	5299.8	5234.8	3948.7	1905.7	791.7	422.5	236.3
72.5°	3373.5	3420.8	3843.3	4603.9	5127.4	4988.4	3465.2	1335.8	506.9	258.5	135.7
75°	1858.0	1974.4	2573.8	3611.9	4101.0	3979.0	2258.3	634.6	252.9	141.4	56.1
77.5°	884.6	862.0	1255.8	2148.0	2780.6	2774.1	1137.8	281.9	147.4	95.7	28.3
80°	252.9	284.4	480.7	1021.1	1543.8	1560.7	437.0	136.1	102.2	74.7	14.5
82.5°	76.3	78.0	176.5	451.6	767.9	723.8	164.0	69.5	73.5	59.4	8.5
85°	13.3	16.6	52.1	159.1	292.8	222.2	41.2	33.1	48.5	39.2	4.8
87.5°	0.8	1.2	17.4	18.2	25.9	14.9	7.3	4.8	10.5	10.5	2.8
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°	846.2	846.2	846.2	846.2	846.2	846.2	846.2	846.2	846.2	846.2	846.2
2.5°	849.0	851.5	849.8	846.2	840.2	832.9	823.2	815.1	808.2	804.6	809.1
5°	854.3	857.5	849.4	831.3	803.8	773.9	740.0	713.7	693.1	686.7	684.2
7.5°	862.4	864.4	842.6	802.2	744.0	673.3	611.5	559.4	519.0	506.9	489.1
10°	872.9	871.7	830.5	755.3	653.1	546.9	451.2	380.1	326.4	307.0	305.4
12.5°	889.0	882.6	815.1	691.5	544.9	405.9	287.6	225.0	191.1	179.7	177.3
15°	909.2	893.9	790.9	616.8	417.2	262.1	177.3	158.3	153.9	153.1	152.3
17.5°	933.1	908.8	759.0	525.1	293.2	170.1	148.2	147.8	148.2	147.4	147.0
20°	965.4	924.6	721.0	416.4	193.9	143.4	141.4	141.4	141.8	141.4	141.4
22.5°	999.7	943.2	674.1	317.9	146.2	136.1	135.7	136.5	137.3	136.9	136.9
25°	1042.1	967.4	612.3	217.7	130.9	130.1	130.5	132.1	133.7	134.1	133.7
27.5°	1103.5	997.3	546.1	149.9	120.0	120.8	124.8	128.9	131.3	131.7	131.7
30°	1172.6	1030.4	459.7	121.6	111.1	111.1	115.9	123.6	128.9	129.7	130.1
32.5°	1261.4	1068.8	363.9	109.5	102.6	101.8	106.2	115.5	125.2	128.0	128.0
35°	1371.3	1114.0	270.6	101.8	96.5	94.5	96.9	104.6	117.1	125.2	126.0
37.5°	1500.2	1156.8	197.9	94.9	90.9	88.1	89.7	95.7	105.8	117.9	121.2
40°	1619.3	1194.8	147.8	89.3	85.2	83.2	84.4	87.2	95.7	107.0	109.1
42.5°	1749.4	1224.3	117.5	83.2	79.6	78.8	78.8	80.0	85.6	92.1	92.5
45°	1879.0	1234.8	98.6	75.9	73.5	74.3	73.9	73.1	75.5	74.7	74.7
47.5°	1971.5	1222.3	81.6	69.1	69.1	70.3	68.3	65.4	64.2	59.4	59.8
50°	2034.9	1176.6	67.1	61.0	64.2	65.8	61.8	57.4	52.9	47.7	46.5
52.5°	2061.2	1095.4	54.9	50.5	57.0	59.0	54.1	48.9	42.0	37.6	36.4
55°	2044.2	995.3	45.6	41.2	48.1	50.5	45.6	39.6	31.9	27.1	26.3
57.5°	1969.5	875.7	38.8	32.7	38.4	40.0	36.8	30.3	22.6	17.8	17.8
60°	1840.3	752.1	31.5	25.9	28.7	31.1	27.9	21.8	15.3	10.9	10.1
62.5°	1578.1	610.7	25.4	20.2	20.2	22.2	19.4	15.8	9.7	5.7	5.3
65°	1139.5	418.9	20.2	14.9	14.5	14.5	12.1	10.5	5.7	2.4	1.6
67.5°	619.2	236.3	16.2	11.3	10.1	9.7	7.7	6.1	2.4	0.4	0.0
70°	243.6	90.9	12.5	7.7	6.5	6.1	4.0	2.8	1.6	0.0	0.0
71°	165.2	62.6	10.9	6.5	5.3	4.4	3.2	2.4	1.2	0.0	0.0
72.5°	94.5	38.8	8.5	4.8	4.0	3.2	2.4	1.6	1.2	0.0	0.0
75°	41.2	19.8	5.3	3.6	2.8	2.0	1.6	1.2	0.4	0.0	0.0
77.5°	21.0	10.9	3.6	2.8	1.6	1.2	0.8	0.4	0.0	0.0	0.0
80°	11.7	5.7	2.4	1.6	1.2	0.8	0.4	0.4	0.0	0.0	0.0
82.5°	6.5	3.2	1.2	0.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.0	2.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.0	0.8	0.0	0.0	0.0	0.0	0.4	0.4	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)