

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: STREETWORKS

Report Number: P321418

Luminaire Tested: **GAN-SA4D-827-U-T2R-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P321418
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-9)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAN-SA4D-827-U-T2R-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18573 lumens
Efficiency: N/A
Efficacy: 72.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

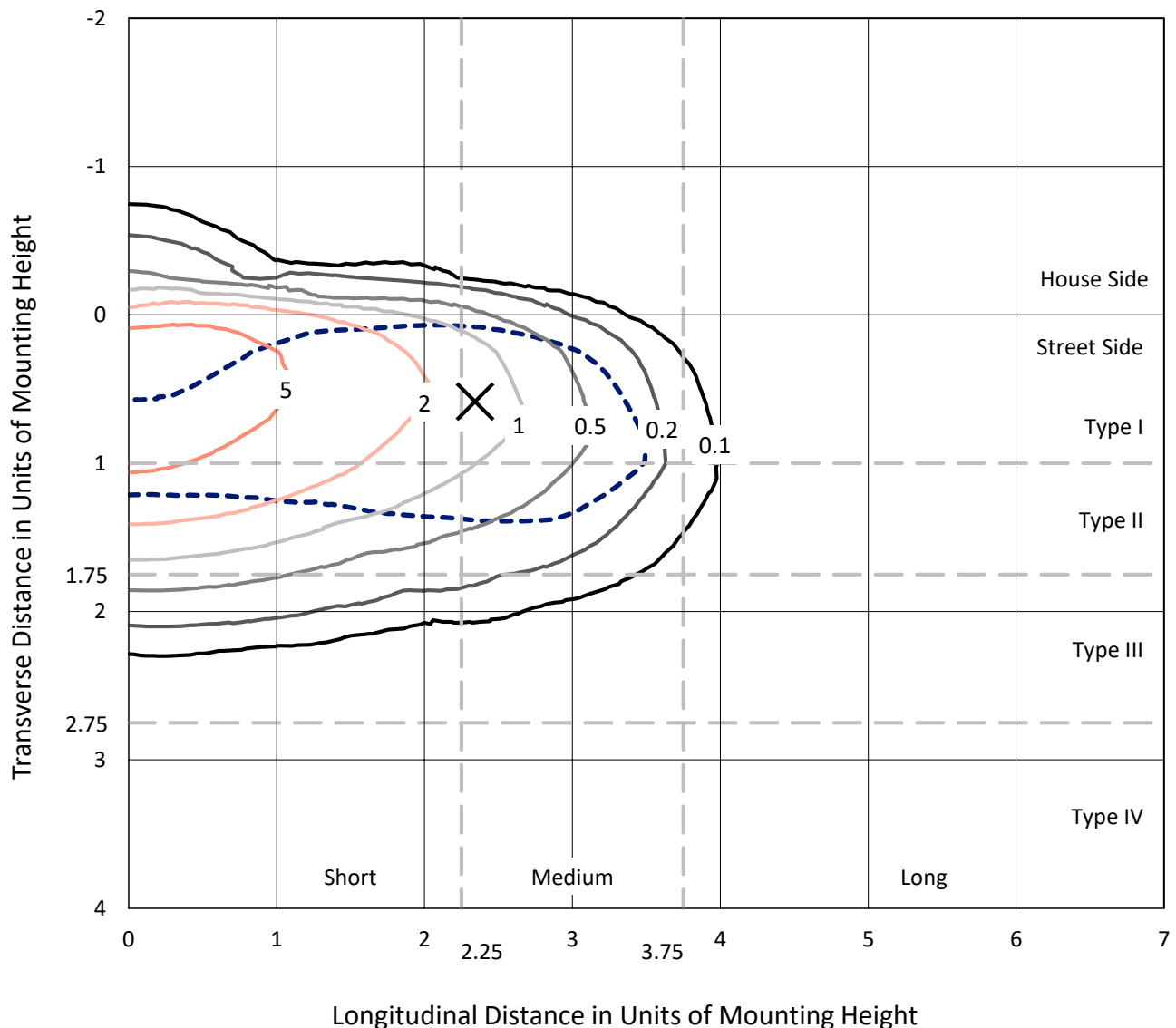
Input Watts (W): 258
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

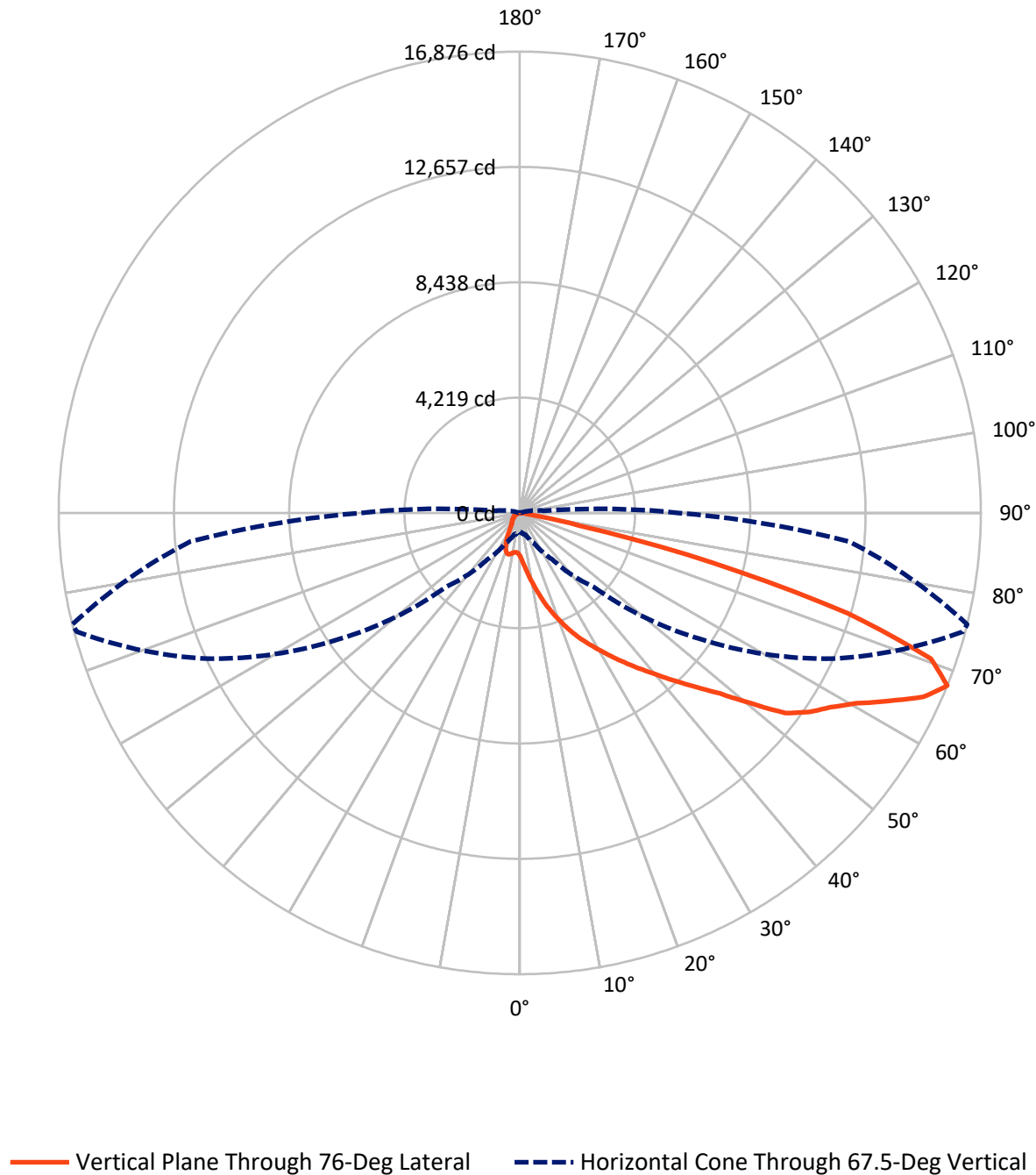
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.9 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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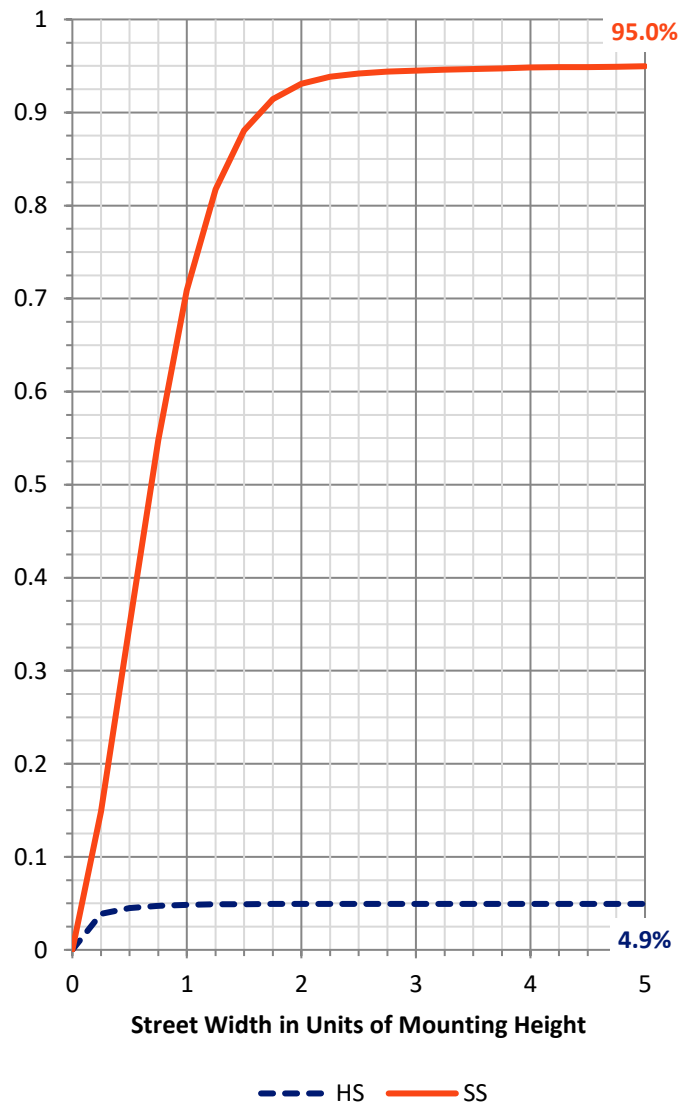
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	922.3	0.0	922.3
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	17650.7	0.0	17650.7
	% Fixture	95.0	0.0	95.0
Total	Lumens	18573.0	0.0	18573.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.9	1.1
10°-20°	776.6	4.2
20°-30°	1580.2	8.5
30°-40°	2742.7	14.8
40°-50°	3875.1	20.9
50°-60°	4394.5	23.7
60°-70°	3644.8	19.6
70°-80°	1320.3	7.1
80°-90°	42.8	0.2
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°	18573.0	100.0
0°-180°	18573.0	100.0

Coefficient of Utilization



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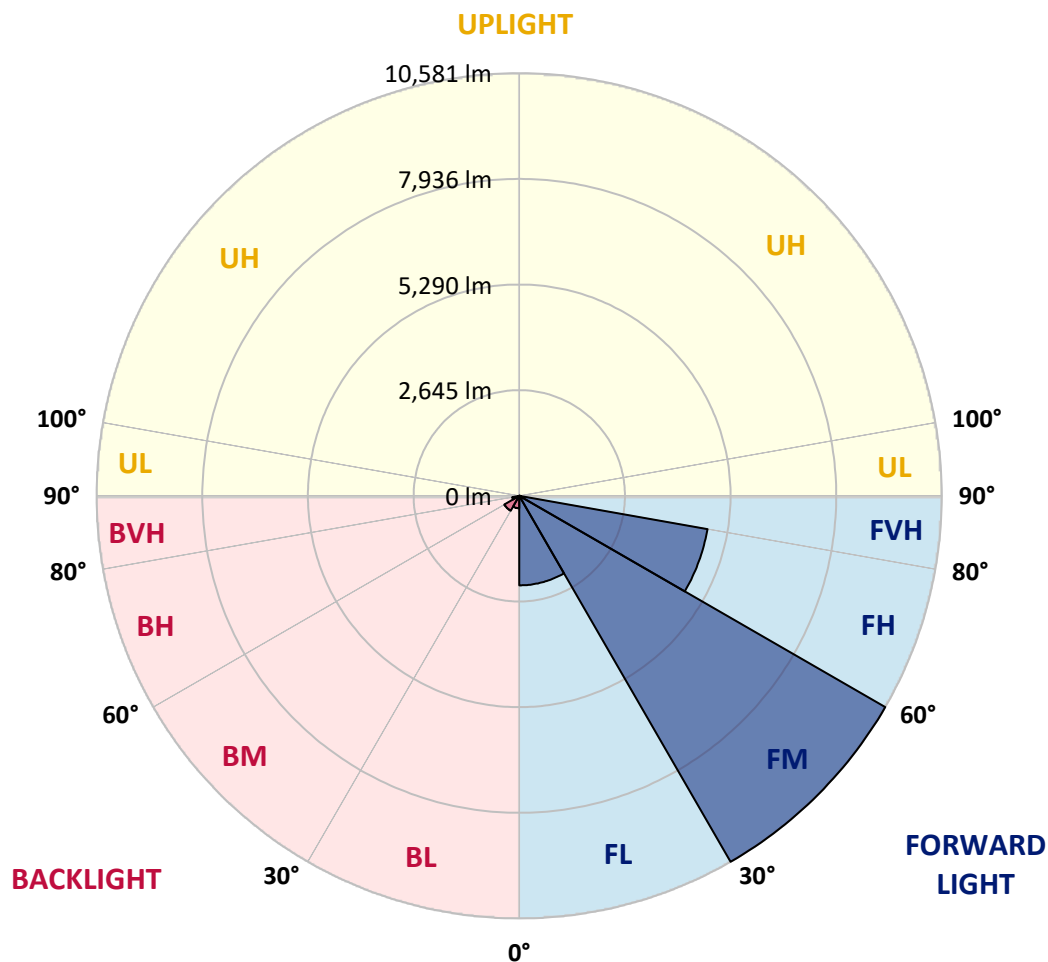
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2241.7	12.1			
FM	(30°-60°)	10580.7	57.0			
FH	(60°-80°)	4786.9	25.8			G2/5000
FVH	(80°-90°)	41.5	0.2			G1/100
BL	(0°-30°)	311.0	1.7	B1/500		
BM	(30°-60°)	431.7	2.3	B1/1000		
BH	(60°-80°)	178.2	1.0	B1/500		G1/500
BVH	(80°-90°)	1.3	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 II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	1575.5	1575.5	1575.5	1575.5	1575.5	1575.5	1575.5	1575.5	1575.5	1575.5	1575.5
2.5°	2351.9	2299.0	2311.2	2277.0	2215.2	2088.2	1980.0	1877.5	1757.8	1753.8	1655.3
5°	3171.4	3126.6	3120.9	3051.8	2939.5	2723.8	2513.8	2274.6	2007.7	1988.1	1779.0
7.5°	3915.2	3879.4	3866.4	3784.2	3575.0	3365.1	3091.6	2740.1	2322.6	2286.8	1945.8
10°	4486.5	4469.4	4472.7	4414.1	4235.0	4039.7	3680.8	3232.4	2679.9	2624.5	2146.0
12.5°	4919.5	4923.5	4952.8	4917.0	4816.9	4672.1	4288.8	3757.3	3075.4	2999.7	2374.7
15°	5237.7	5258.0	5311.7	5356.5	5349.1	5223.8	4872.3	4290.4	3495.3	3411.5	2629.4
17.5°	5443.5	5466.3	5544.5	5643.7	5734.9	5705.6	5435.4	4804.7	3920.1	3823.3	2902.0
20°	5624.2	5651.1	5734.9	5865.9	6036.0	6072.6	5895.2	5303.6	4344.1	4226.1	3183.6
22.5°	6015.7	6014.8	6066.1	6142.6	6304.6	6399.0	6286.7	5766.6	4763.2	4640.3	3470.9
25°	6723.7	6696.8	6678.9	6618.7	6654.5	6713.1	6650.4	6199.6	5184.8	5060.2	3762.2
27.5°	7565.1	7581.4	7436.6	7274.6	7149.3	7089.1	6986.5	6600.8	5590.0	5453.3	4047.1
30°	8453.0	8457.9	8287.0	8080.3	7804.4	7575.7	7398.3	6984.1	6006.7	5857.8	4323.8
32.5°	9253.8	9222.0	9052.8	8771.2	8422.9	8165.7	7797.1	7412.1	6447.8	6303.7	4631.4
35°	9888.6	9851.1	9645.2	9388.9	9027.5	8768.8	8325.2	7839.4	6911.7	6770.9	4939.8
37.5°	10352.4	10308.5	10096.9	9833.2	9521.5	9371.0	8938.0	8304.1	7417.8	7266.5	5264.5
40°	10513.6	10475.3	10342.7	10149.8	9899.1	9865.0	9588.3	8838.7	7968.8	7807.7	5632.4
42.5°	10417.5	10380.1	10332.9	10267.8	10163.6	10196.2	10201.9	9448.3	8580.8	8422.1	6038.4
45°	10036.7	10003.3	10052.1	10147.3	10276.7	10437.9	10761.8	10103.4	9264.4	9095.1	6508.0
47.5°	9476.0	9451.5	9586.6	9824.3	10202.7	10647.0	11273.7	10791.9	10031.8	9874.7	7093.9
50°	8678.4	8674.4	8944.5	9378.3	9960.2	10747.9	11802.6	11574.8	11097.9	10932.7	7908.6
52.5°	7436.6	7444.7	7976.1	8670.3	9534.6	10679.6	12142.8	12580.6	12338.1	12166.4	8614.1
55°	6254.1	6302.9	6679.7	7680.7	8881.9	10425.7	12260.0	13050.2	13022.5	12859.8	9006.4
57.5°	5096.1	5184.8	5547.7	6482.8	7928.9	9840.5	12195.7	13253.6	13532.0	13407.5	9524.0
60°	3841.2	3881.9	4300.2	5174.2	6705.8	8772.8	11729.4	13364.3	14228.6	14142.3	10275.1
62.5°	2443.9	2545.6	2916.7	3759.8	5221.4	7290.1	10943.2	13362.7	15100.2	15147.4	11244.4
65°	1287.4	1406.3	1603.2	2329.9	3588.1	5634.0	9760.8	13237.4	16169.5	16235.4	12002.0
67.5°	694.2	728.4	832.5	1209.3	2080.9	3816.7	8023.3	12618.9	16788.8	16875.9	12107.8
70°	507.8	526.5	565.6	668.9	1047.4	2216.8	5854.5	11216.7	15990.5	15957.9	10757.7
72.5°	389.8	419.1	448.4	489.9	602.2	1183.3	3645.0	8783.4	12758.8	12544.0	8041.2
75°	307.6	312.5	354.0	391.4	451.7	673.8	1618.7	5115.6	7787.3	7278.7	4169.9
77.5°	245.8	249.0	273.4	306.0	363.0	442.7	501.3	2012.5	2486.2	2218.4	905.0
80°	145.7	153.8	203.5	236.0	301.1	279.1	183.1	437.0	388.2	351.6	152.2
82.5°	81.4	87.9	114.7	186.4	210.0	133.5	91.1	118.0	91.1	88.7	43.1
85°	0.0	4.1	74.1	115.6	85.4	29.3	38.2	39.1	26.9	25.2	17.1
87.5°	0.0	0.0	22.8	22.0	3.3	4.9	9.0	13.0	10.6	10.6	9.0
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°	1575.5	1575.5	1575.5	1575.5	1575.5	1575.5	1575.5	1575.5	1575.5	1575.5	1575.5
2.5°	1606.5	1562.5	1479.5	1398.1	1329.8	1273.6	1223.2	1202.8	1186.5	1184.1	1171.1
5°	1678.1	1589.4	1430.7	1300.5	1213.4	1151.5	1098.6	1066.1	1040.9	1031.1	1022.1
7.5°	1786.3	1652.0	1424.2	1274.4	1170.3	1066.1	968.4	862.6	796.7	771.5	756.8
10°	1918.1	1735.0	1448.6	1267.1	1084.8	865.1	703.1	568.9	514.3	496.4	491.5
12.5°	2071.9	1838.4	1490.9	1221.5	902.5	614.4	485.0	439.5	427.2	421.6	421.6
15°	2248.5	1951.5	1521.0	1089.7	667.3	464.7	419.9	398.8	385.7	378.4	379.2
17.5°	2429.2	2062.2	1506.4	898.4	492.4	413.4	380.0	357.3	339.4	332.0	330.4
20°	2611.5	2164.7	1425.0	668.9	416.7	375.2	337.7	312.5	294.6	287.3	285.6
22.5°	2800.3	2251.8	1281.7	490.7	374.4	332.8	296.2	271.0	253.9	247.4	244.1
25°	2984.2	2322.6	1081.5	397.1	334.5	293.0	258.0	234.4	218.9	212.4	211.6
27.5°	3155.9	2367.4	849.6	350.8	299.5	257.2	225.4	204.3	191.2	186.4	185.5
30°	3310.6	2371.4	628.3	316.6	268.6	226.2	196.9	178.2	166.8	161.9	160.3
32.5°	3466.8	2337.3	457.4	285.6	240.1	199.4	170.9	156.3	148.1	144.0	144.0
35°	3614.1	2258.3	356.4	258.8	212.4	173.3	150.6	140.0	135.1	131.0	131.0
37.5°	3758.2	2145.2	302.7	235.2	186.4	151.4	132.7	126.1	122.1	118.0	118.0
40°	3904.6	2002.8	275.1	213.2	165.2	134.3	118.0	112.3	108.2	105.0	104.2
42.5°	4084.5	1838.4	257.2	192.9	146.5	118.8	104.2	97.7	94.4	91.1	89.5
45°	4292.8	1696.8	242.5	172.5	131.0	105.8	90.3	83.8	78.9	74.9	74.1
47.5°	4593.1	1594.2	223.0	150.6	116.4	92.0	78.1	70.8	63.5	59.4	58.6
50°	4976.4	1509.6	197.8	131.0	101.7	78.1	65.1	56.2	49.6	45.6	45.6
52.5°	5166.9	1398.9	175.0	113.9	85.4	65.9	52.9	42.3	39.1	35.0	35.0
55°	5243.4	1314.3	152.2	96.8	70.8	54.5	41.5	32.6	30.1	27.7	26.9
57.5°	5458.2	1289.9	132.7	82.2	58.6	43.1	31.7	24.4	22.8	19.5	19.5
60°	5804.1	1302.1	114.7	70.0	47.2	33.4	23.6	18.7	17.1	13.8	13.8
62.5°	6177.6	1286.6	96.8	60.2	36.6	24.4	16.3	13.8	13.8	8.1	7.3
65°	6249.2	1145.8	83.0	49.6	28.5	17.9	10.6	9.0	12.2	1.6	0.0
67.5°	5800.0	888.7	71.6	38.2	21.2	13.8	8.1	4.1	10.6	0.0	0.0
70°	4637.9	564.8	57.8	27.7	16.3	11.4	6.5	1.6	8.1	0.0	0.0
72.5°	3279.6	328.0	45.6	19.5	13.8	9.0	4.9	0.0	4.9	0.0	0.0
75°	1658.5	175.0	28.5	14.6	10.6	6.5	3.3	0.0	0.8	0.0	0.0
77.5°	358.9	81.4	17.9	10.6	7.3	4.1	1.6	0.0	0.0	0.0	0.0
80°	78.1	35.8	11.4	6.5	4.1	2.4	0.0	0.0	0.0	0.0	0.0
82.5°	28.5	18.7	5.7	3.3	1.6	0.0	0.0	0.0	0.0	0.0	0.0
85°	15.5	9.8	3.3	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	8.1	3.3	0.8	0.8	0.0	0.0	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)