

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: P320178

Luminaire Tested: **GAN-SA4D-830-U-SL4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P320178
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-24)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAN-SA4D-830-U-SL4
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23633 lumens
Efficiency: N/A
Efficacy: 91.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G5

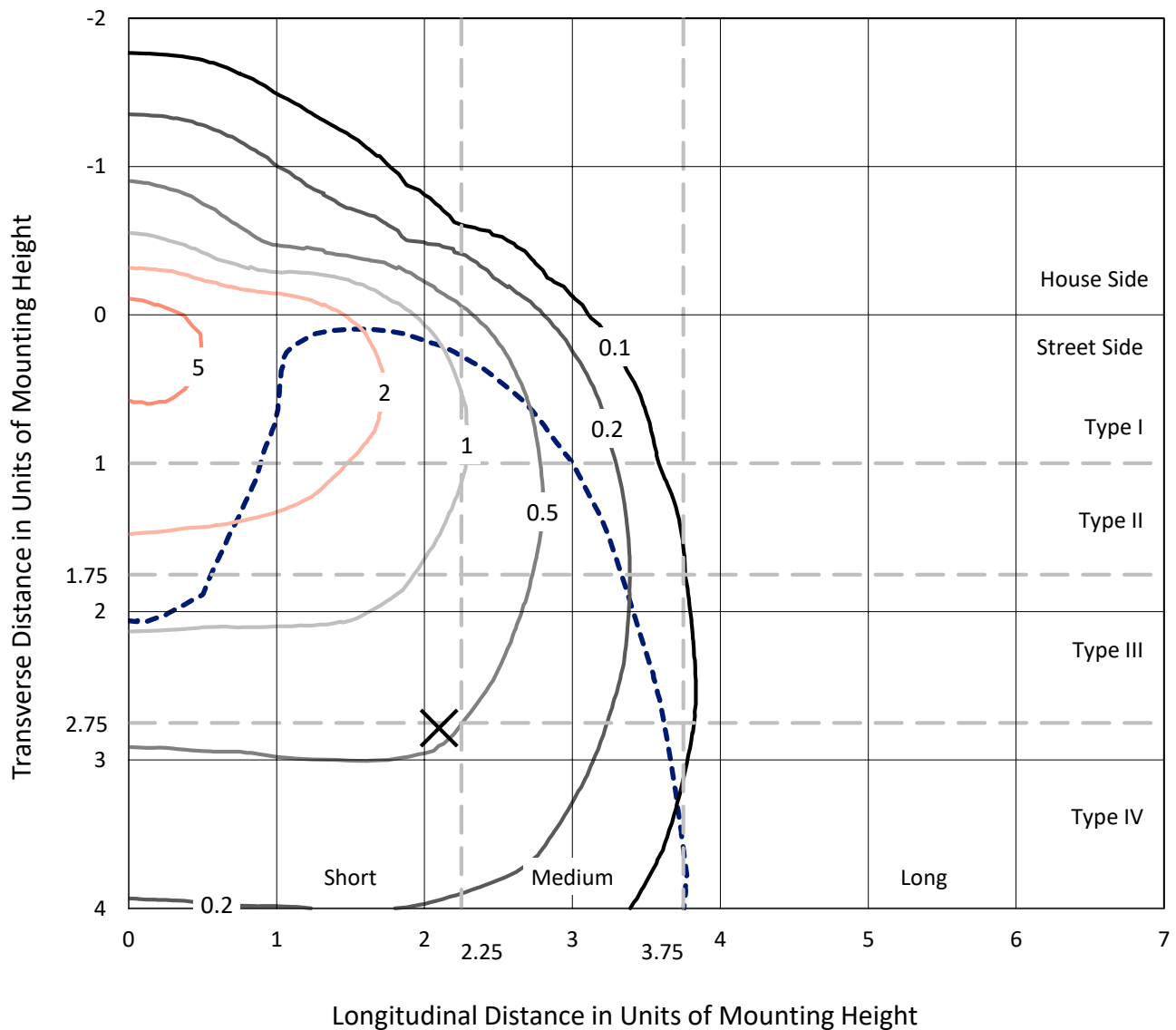
Input Watts (W): 258
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

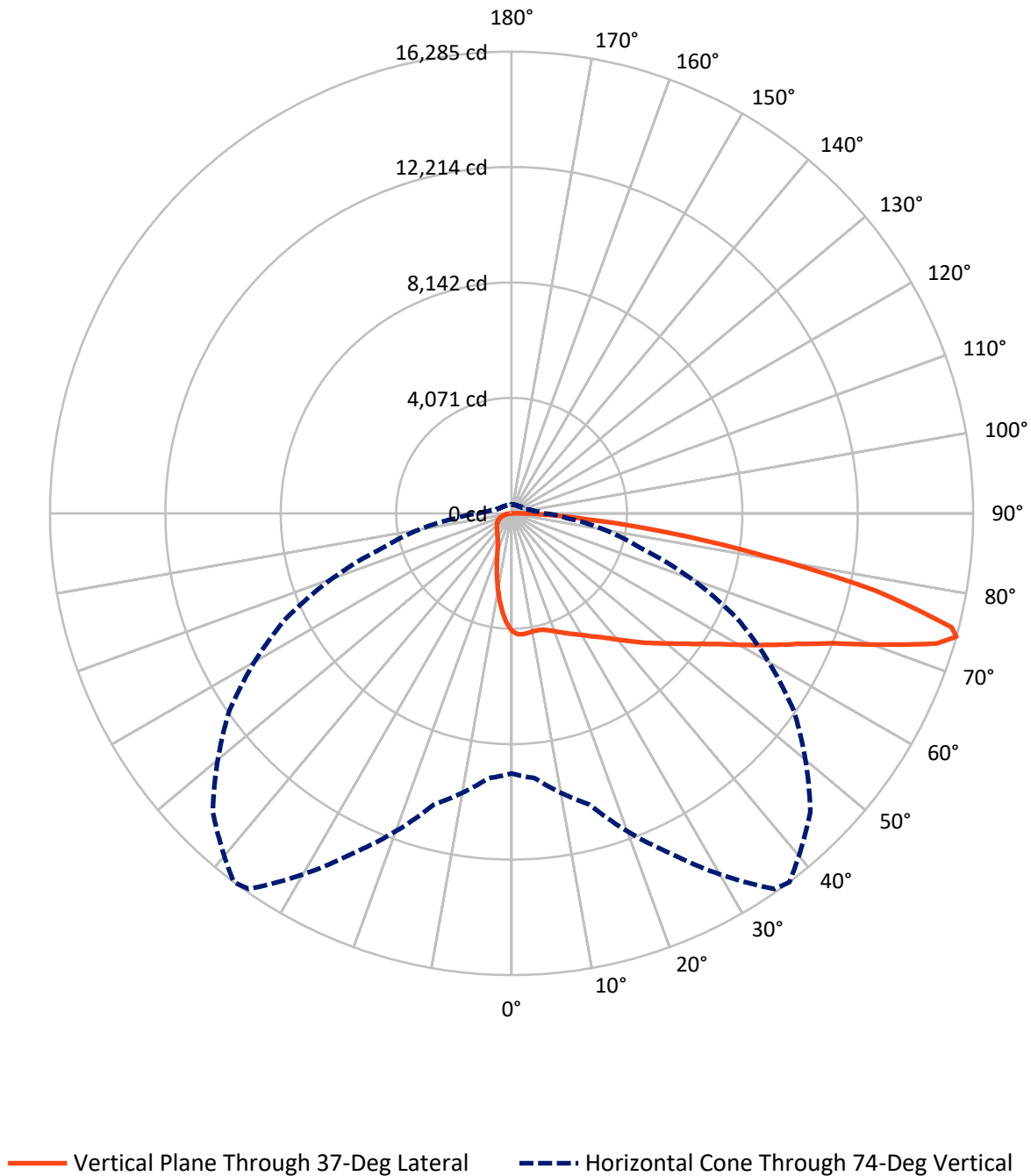
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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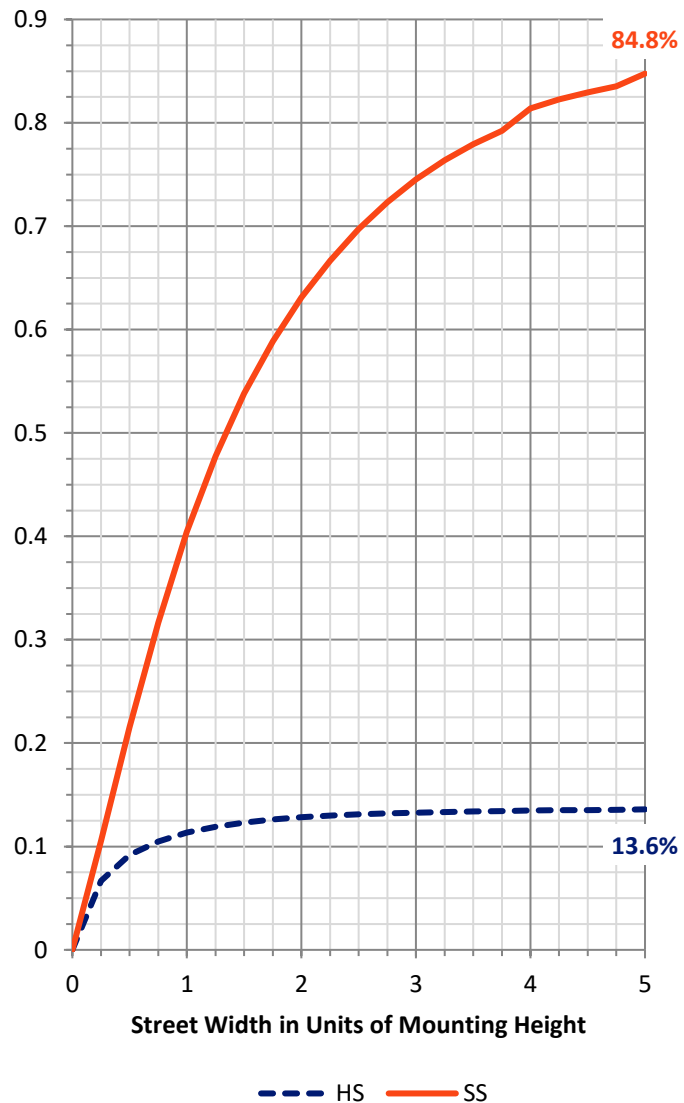
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3251.7	0.0	3251.7
	% Fixture	13.8	0.0	13.8
Street Side	Lumens	20381.3	0.0	20381.3
	% Fixture	86.2	0.0	86.2
Total	Lumens	23633.0	0.0	23633.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	366.7	1.6
10°-20°	939.9	4.0
20°-30°	1448.2	6.1
30°-40°	2106.0	8.9
40°-50°	3099.6	13.1
50°-60°	4352.8	18.4
60°-70°	5509.4	23.3
70°-80°	4851.2	20.5
80°-90°	959.2	4.1
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°	23633.0	100.0
0°-180°	23633.0	100.0

Coefficient of Utilization



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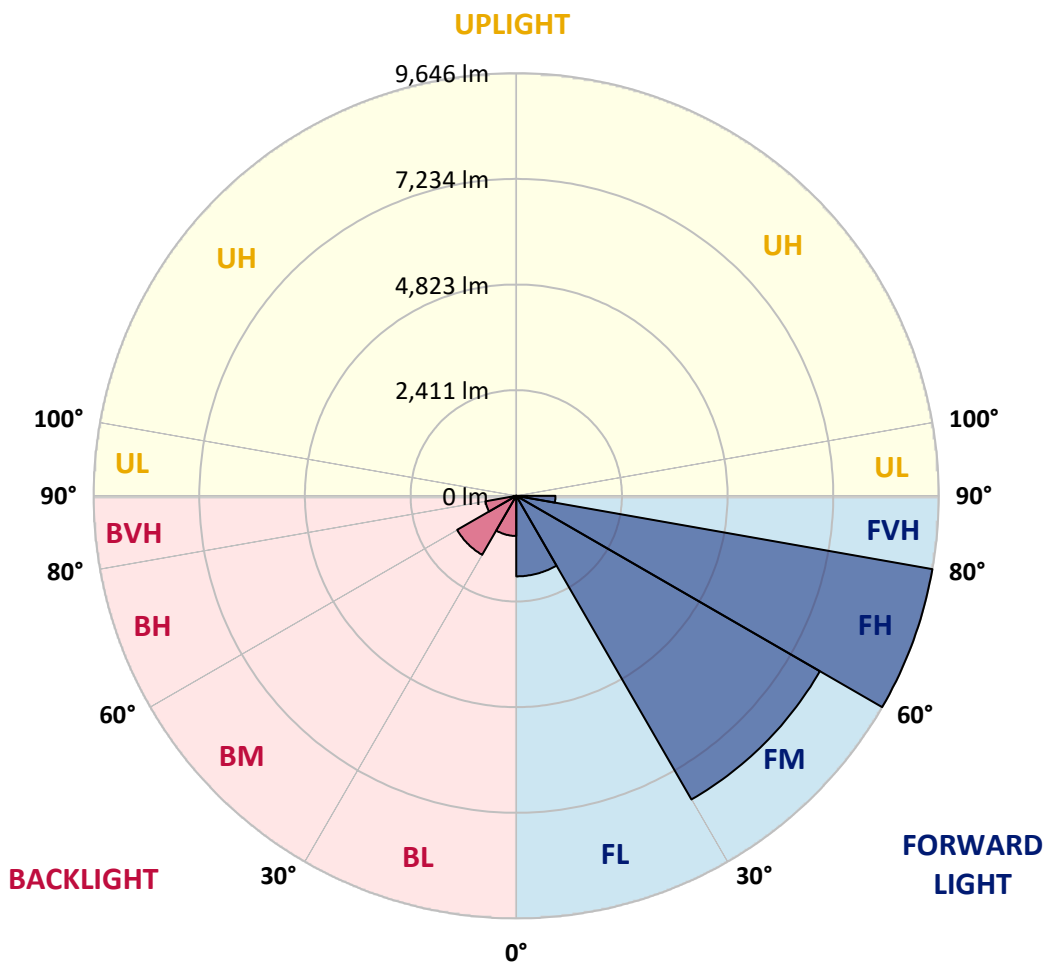
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1838.9	7.8			
FM	(30°-60°)	8002.3	33.9			
FH	(60°-80°)	9645.8	40.8			G4/12000
FVH	(80°-90°)	894.2	3.8			G5
BL	(0°-30°)	915.9	3.9	B2/1000		
BM	(30°-60°)	1556.1	6.6	B2/2500		
BH	(60°-80°)	714.8	3.0	B2/1000		G2/1000
BVH	(80°-90°)	65.0	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	37°	45°	55°	65°	75°	85°
0°	4164.0	4164.0	4164.0	4164.0	4164.0	4164.0	4164.0	4164.0	4164.0	4164.0	4164.0
2.5°	4306.4	4307.2	4306.4	4299.7	4283.9	4270.6	4259.8	4244.0	4209.0	4182.4	4142.4
5°	4347.2	4342.2	4338.9	4326.4	4301.4	4286.4	4265.6	4235.6	4178.2	4124.9	4060.0
7.5°	4328.0	4322.2	4314.7	4299.7	4271.4	4258.9	4229.8	4190.7	4121.6	4051.7	3958.4
10°	4268.9	4267.3	4263.9	4260.6	4236.5	4226.5	4199.8	4158.2	4090.0	4005.0	3896.0
12.5°	4203.2	4207.3	4220.7	4238.1	4227.3	4222.3	4205.7	4177.4	4107.4	4015.9	3884.3
15°	4161.5	4173.2	4209.0	4254.8	4263.9	4262.3	4258.1	4239.8	4165.7	4064.1	3911.0
17.5°	4147.4	4166.5	4234.8	4310.6	4337.2	4343.0	4344.7	4313.1	4230.6	4123.3	3938.4
20°	4173.2	4197.3	4297.2	4401.3	4443.8	4447.1	4439.6	4384.6	4292.2	4174.0	3953.4
22.5°	4251.5	4273.1	4398.0	4515.3	4563.6	4568.6	4546.1	4462.9	4357.2	4234.0	3974.2
25°	4402.1	4428.8	4553.6	4671.0	4696.0	4696.8	4664.4	4561.1	4442.1	4318.1	4019.2
27.5°	4598.6	4625.2	4737.6	4852.5	4839.2	4831.7	4787.6	4684.3	4552.8	4433.8	4099.1
30°	4817.5	4846.7	4953.2	5034.8	5003.2	4988.2	4952.4	4819.2	4706.8	4591.9	4221.5
32.5°	5044.0	5070.6	5163.8	5219.6	5179.7	5173.0	5118.9	4997.4	4907.4	4833.4	4419.6
35°	5276.2	5295.4	5386.9	5418.6	5365.3	5363.6	5348.7	5237.1	5180.5	5215.5	4707.6
37.5°	5513.5	5518.5	5596.7	5598.4	5582.6	5589.2	5605.1	5535.1	5550.9	5660.0	5082.3
40°	5724.9	5738.3	5794.9	5812.3	5839.8	5863.1	5942.2	5896.4	6018.8	6211.9	5548.4
42.5°	5881.4	5907.2	5998.0	6042.9	6132.0	6168.6	6280.2	6322.7	6569.1	6858.8	6102.9
45°	6013.8	6053.8	6199.4	6291.9	6442.5	6506.6	6666.5	6808.8	7190.9	7560.5	6686.4
47.5°	6157.0	6207.8	6390.1	6566.6	6771.4	6843.8	7134.3	7347.4	7854.4	8266.5	7236.7
50°	6367.6	6406.7	6584.9	6862.1	7117.7	7210.9	7613.0	7918.5	8528.7	8939.1	7713.7
52.5°	6661.5	6646.5	6797.2	7185.9	7528.9	7643.8	8124.1	8526.2	9212.2	9547.7	8116.6
55°	6957.0	6932.0	7037.7	7524.7	8008.4	8129.1	8686.9	9136.4	9862.3	10095.4	8425.5
57.5°	7285.8	7238.4	7327.5	7906.9	8554.5	8698.5	9317.1	9784.9	10501.7	10538.3	8621.9
60°	7624.6	7560.5	7660.4	8380.5	9248.0	9417.8	10054.6	10417.6	11104.4	10892.9	8685.2
62.5°	7921.0	7876.1	8030.1	8909.2	10029.7	10216.1	10778.9	11090.2	11698.8	11040.3	8457.1
65°	8179.9	8187.4	8453.8	9503.5	10901.3	11100.2	11609.7	11919.4	12166.6	10952.9	7923.5
67.5°	8488.8	8531.2	8985.7	10286.1	11998.5	12216.6	12818.5	12823.5	12428.0	10440.1	6872.9
70°	8939.1	9026.5	9717.5	11371.6	13558.5	13858.2	14322.7	13354.6	12060.9	9049.8	5407.8
72.5°	9338.7	9501.9	10495.9	12613.7	15459.9	15687.2	15202.7	13048.2	10526.7	6782.2	3369.0
74°	9176.4	9378.7	10637.4	13225.5	16175.8	16284.9	14905.5	12154.1	8776.8	4696.8	1958.0
75°	8826.7	9046.5	10430.9	13219.7	16085.1	16024.3	14187.9	11132.7	7228.4	3203.4	1302.8
77.5°	7123.5	7355.8	8789.3	11330.0	13188.9	13131.5	10898.8	7468.1	3165.9	1050.6	661.8
80°	4141.6	4318.9	5456.0	7195.1	8893.3	8997.4	7167.6	3695.4	1245.4	590.2	448.7
82.5°	1839.8	1962.1	2635.6	3672.9	5367.0	5501.0	3753.6	1936.3	769.2	358.8	269.7
85°	1207.1	1297.8	1600.0	1749.0	2555.7	2647.3	1837.3	1507.6	507.8	197.3	198.1
87.5°	868.3	955.7	1188.8	1038.1	1173.0	1110.5	999.8	1395.2	204.0	112.4	66.6
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°	4164.0	4164.0	4164.0	4164.0	4164.0	4164.0	4164.0	4164.0	4164.0	4164.0	4164.0
2.5°	4124.9	4111.6	4081.6	4025.0	3993.4	3966.7	3922.6	3896.8	3885.2	3884.3	3889.3
5°	4022.5	3991.7	3914.3	3819.4	3743.6	3674.5	3588.8	3537.2	3500.6	3478.9	3484.7
7.5°	3903.5	3855.2	3733.7	3582.1	3460.6	3326.6	3194.2	3115.1	3053.5	3007.7	3016.1
10°	3821.9	3755.3	3578.0	3359.9	3157.6	2962.8	2780.5	2671.4	2584.8	2518.2	2523.2
12.5°	3794.4	3704.5	3458.9	3167.6	2883.7	2617.3	2379.2	2211.9	2122.8	2047.1	2052.9
15°	3798.6	3677.9	3359.0	2994.4	2637.3	2301.8	2012.9	1817.3	1696.6	1644.1	1645.0
17.5°	3801.9	3647.1	3254.1	2808.8	2393.4	2007.1	1693.3	1495.1	1381.1	1332.8	1333.6
20°	3791.1	3597.1	3124.3	2595.7	2138.6	1736.5	1432.7	1264.5	1178.0	1140.5	1140.5
22.5°	3776.9	3538.0	2977.8	2381.7	1887.2	1501.8	1246.2	1118.0	1068.1	1043.1	1042.3
25°	3783.6	3493.9	2827.9	2161.9	1655.8	1314.5	1122.2	1037.3	1004.0	988.1	987.3
27.5°	3819.4	3473.1	2689.7	1943.0	1453.5	1173.8	1038.9	979.0	957.3	947.4	947.4
30°	3884.3	3473.1	2545.7	1756.5	1285.3	1069.7	974.8	934.0	919.1	912.4	912.4
32.5°	3997.5	3492.2	2406.7	1571.7	1151.3	988.1	921.6	894.1	882.4	879.1	879.1
35°	4192.3	3557.2	2271.0	1396.9	1043.1	921.6	870.8	855.0	846.6	845.8	848.3
37.5°	4466.2	3689.5	2143.6	1267.9	966.5	867.4	828.3	815.8	810.8	815.0	818.3
40°	4810.9	3869.3	2027.9	1151.3	908.2	824.2	789.2	780.9	778.4	784.2	789.2
42.5°	5227.1	4112.4	1933.0	1067.2	863.3	787.5	755.9	745.9	743.4	750.1	756.7
45°	5677.5	4373.8	1866.4	1004.8	828.3	760.1	726.8	715.9	710.9	714.3	721.8
47.5°	6087.1	4621.1	1839.8	960.7	795.0	736.7	700.9	687.6	679.3	677.6	683.5
50°	6432.5	4805.0	1852.3	934.0	768.4	710.9	676.0	661.0	648.5	641.0	645.2
52.5°	6683.9	4920.8	1863.9	922.4	747.6	682.6	648.5	634.3	617.7	605.2	605.2
55°	6866.3	4947.4	1838.1	913.2	731.7	651.8	617.7	604.4	587.7	573.6	571.9
57.5°	6937.9	4872.5	1742.4	899.9	720.9	622.7	585.2	575.2	561.1	544.4	543.6
60°	6841.3	4641.1	1557.6	871.6	706.8	598.5	552.8	546.1	539.4	523.6	522.8
62.5°	6453.4	4133.2	1318.6	814.2	678.5	572.7	522.8	526.1	527.0	516.1	514.5
65°	5749.9	3435.6	1085.5	739.2	636.0	541.9	492.0	507.8	517.0	515.3	512.8
67.5°	4727.6	2673.9	919.9	660.2	580.2	499.5	458.7	477.0	484.5	490.3	488.7
70°	3508.9	1885.6	760.9	576.9	512.8	449.5	415.4	424.6	419.6	426.2	428.7
72.5°	1956.3	1131.3	620.2	493.7	442.9	391.3	367.1	365.5	354.6	354.6	354.6
74°	1173.8	830.0	545.3	442.0	400.4	353.0	332.2	324.7	314.7	315.5	314.7
75°	944.0	713.4	500.3	407.9	370.5	330.5	309.7	299.7	292.2	292.2	291.4
77.5°	596.1	541.9	402.9	324.7	296.4	272.2	258.1	244.7	244.7	243.9	243.1
80°	450.4	431.2	313.8	245.6	227.3	209.0	199.8	194.0	194.0	196.5	195.6
82.5°	308.8	324.7	220.6	171.5	162.3	149.0	147.3	148.2	145.7	142.4	141.5
85°	225.6	243.9	149.0	108.2	99.1	90.7	97.4	100.7	96.6	89.1	85.7
87.5°	86.6	159.8	79.9	45.0	41.6	35.8	41.6	43.3	46.6	36.6	37.5
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)