

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: P453855

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

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453855
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-18)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-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: 23804 lumens
Efficiency: N/A
Efficacy: 97.2 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): 245
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



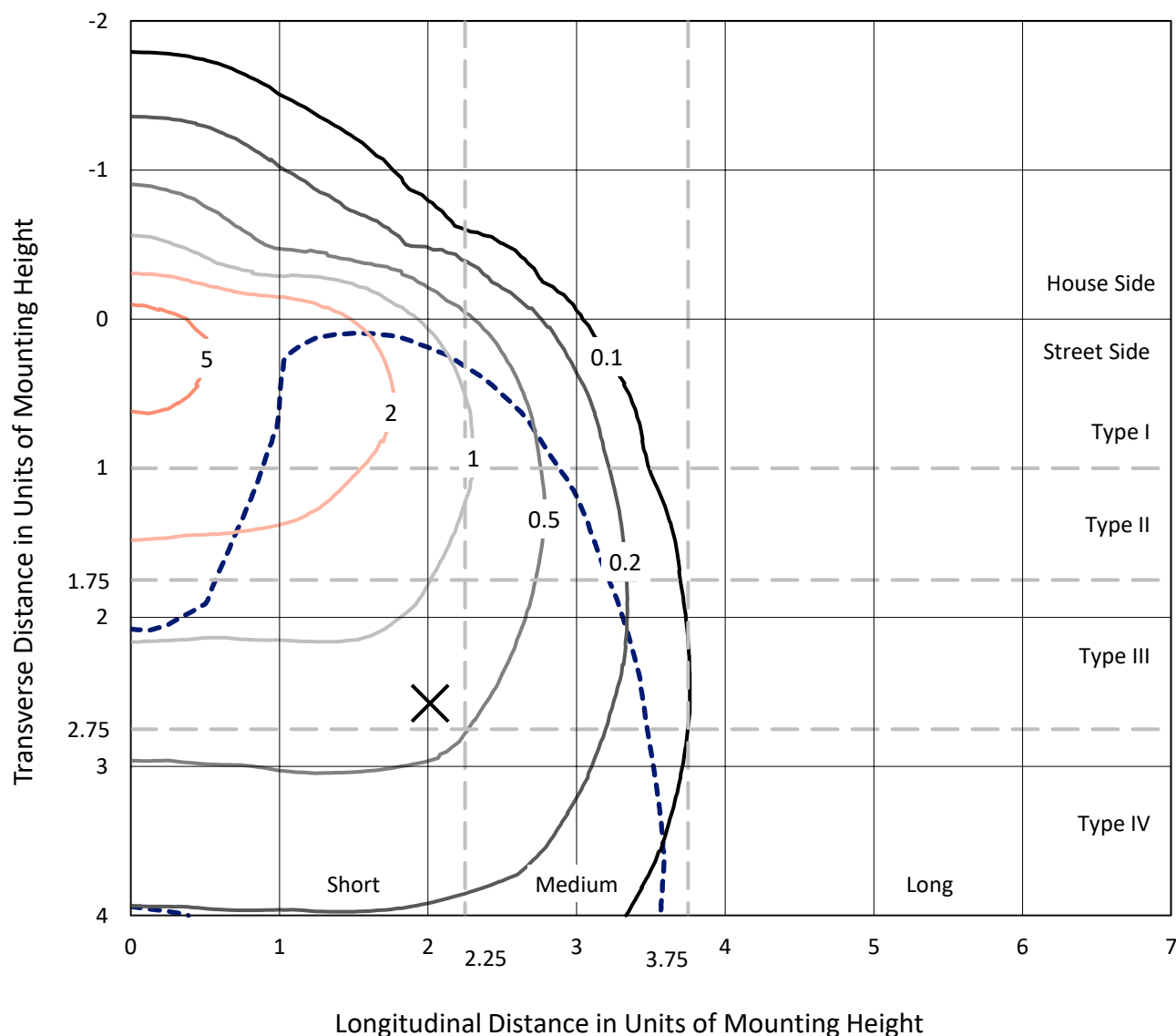
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

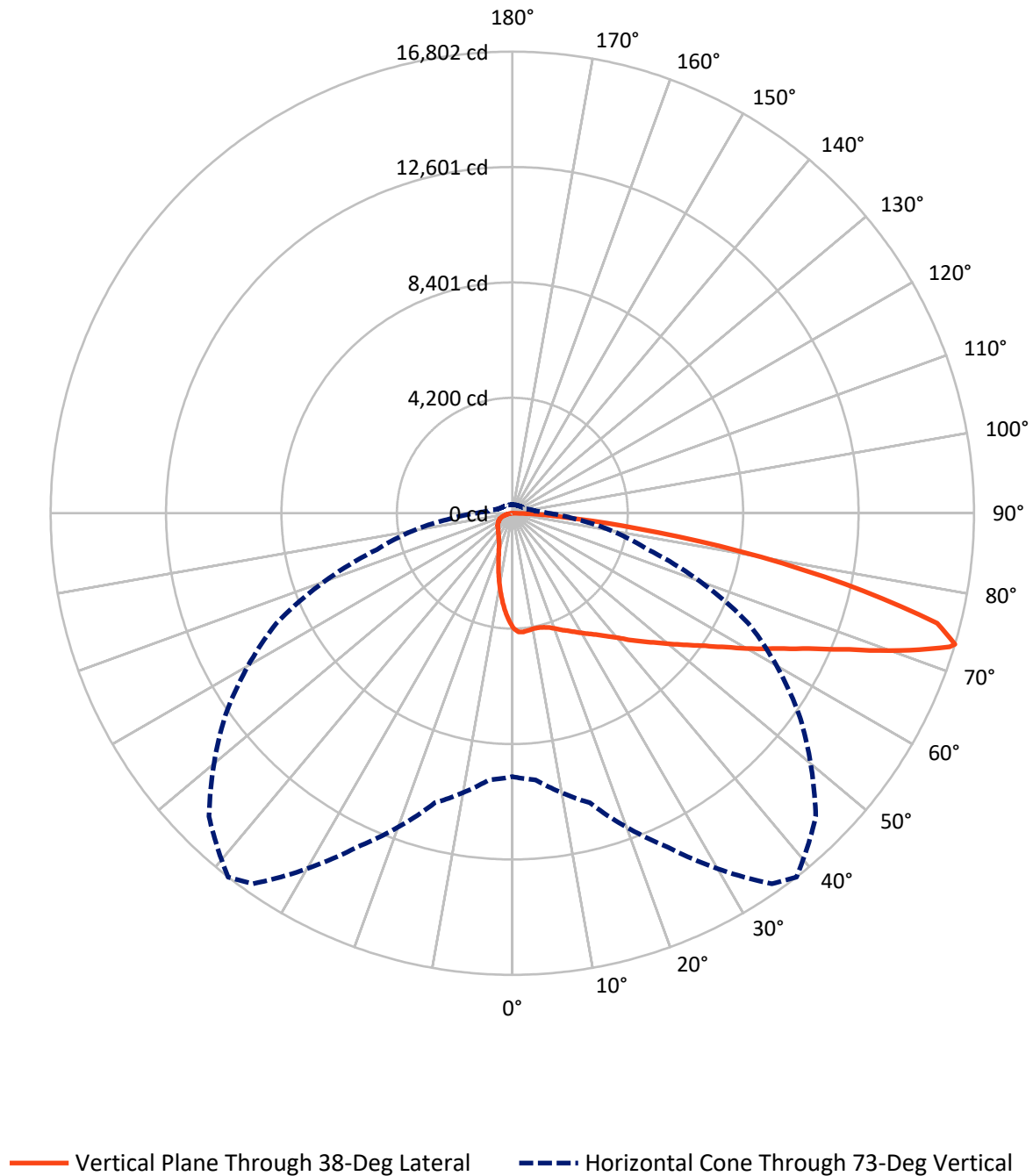


Based on 25 foot mounting height. Maximum calculated value = 6.8 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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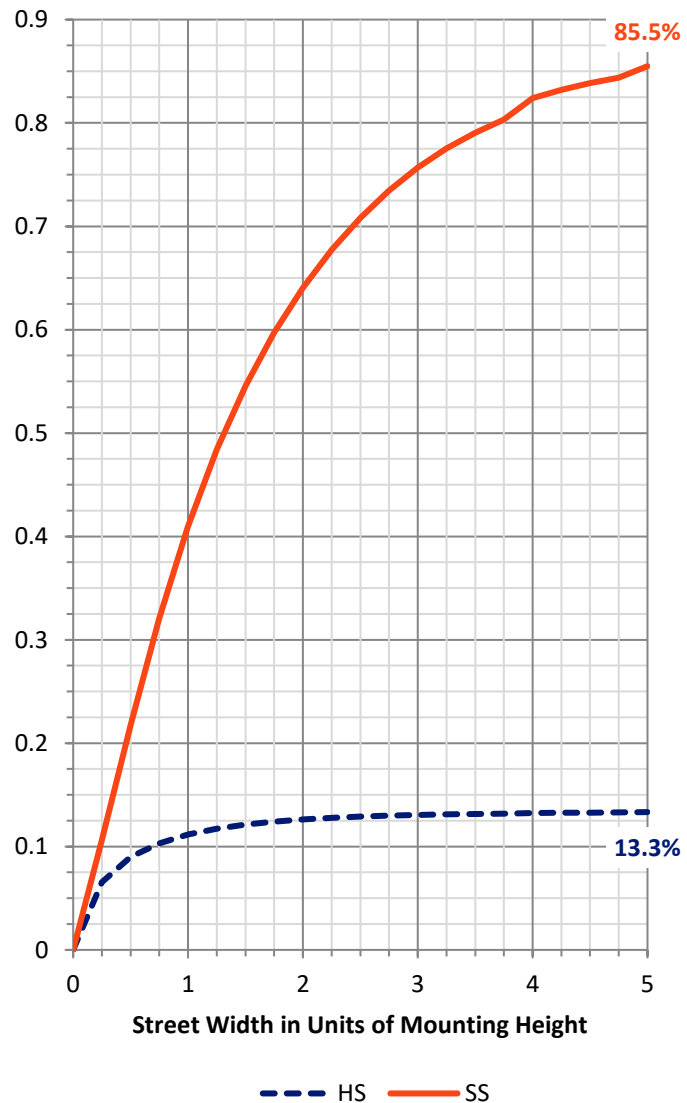
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3200.0	0.0	3200.0
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	20604.0	0.0	20604.0
	% Fixture	86.6	0.0	86.6
Total	Lumens	23804.0	0.0	23804.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	365.0	1.5
10°-20°	936.1	3.9
20°-30°	1457.7	6.1
30°-40°	2138.0	9.0
40°-50°	3171.5	13.3
50°-60°	4493.5	18.9
60°-70°	5700.1	23.9
70°-80°	4744.9	19.9
80°-90°	797.2	3.3
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°	23804.0	100.0
0°-180°	23804.0	100.0

Coefficient of Utilization



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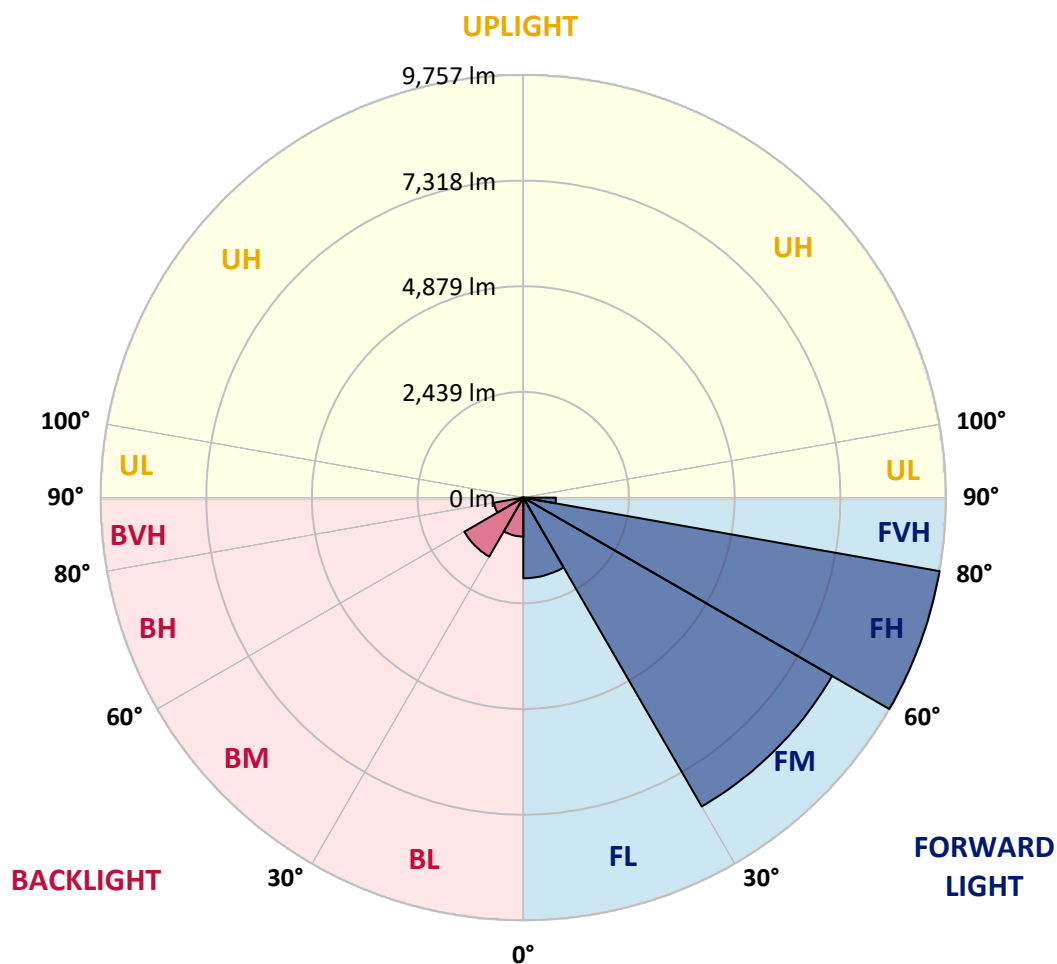
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1860.8	7.8			
FM	(30°-60°)	8232.1	34.6			
FH	(60°-80°)	9757.2	41.0			G4/12000
FVH	(80°-90°)	754.0	3.2			G5
BL	(0°-30°)	897.9	3.8	B2/1000		
BM	(30°-60°)	1571.0	6.6	B2/2500		
BH	(60°-80°)	687.8	2.9	B2/1000		G2/1000
BVH	(80°-90°)	43.2	0.2			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°	38°	45°	55°	65°	75°	85°
0°	4182.0	4182.0	4182.0	4182.0	4182.0	4182.0	4182.0	4182.0	4182.0	4182.0	4182.0
2.5°	4350.0	4371.5	4360.7	4346.0	4336.5	4327.1	4313.7	4274.7	4243.8	4210.2	4157.8
5°	4382.3	4395.7	4386.3	4367.5	4346.0	4336.5	4311.0	4259.9	4210.2	4153.7	4075.8
7.5°	4363.4	4368.8	4358.1	4335.2	4316.4	4298.9	4269.3	4212.9	4152.4	4083.8	3981.7
10°	4296.2	4316.4	4316.4	4297.6	4278.7	4269.3	4239.8	4186.0	4130.9	4052.9	3931.9
12.5°	4241.1	4262.6	4280.1	4274.7	4273.4	4273.4	4250.5	4210.2	4145.7	4071.7	3927.9
15°	4203.5	4229.0	4266.6	4288.2	4301.6	4305.6	4296.2	4261.3	4195.4	4109.4	3944.0
17.5°	4195.4	4226.3	4294.9	4341.9	4376.9	4375.5	4372.8	4324.4	4251.9	4163.1	3964.2
20°	4231.7	4272.0	4367.5	4441.4	4492.5	4483.1	4468.3	4405.1	4320.4	4220.9	3983.0
22.5°	4340.6	4382.3	4487.1	4567.8	4617.5	4617.5	4573.1	4489.8	4399.7	4288.2	4008.6
25°	4496.5	4542.2	4653.8	4735.8	4758.6	4741.2	4696.8	4596.0	4492.5	4384.9	4062.3
27.5°	4687.4	4742.5	4846.0	4914.6	4907.9	4894.4	4848.7	4719.7	4616.2	4518.0	4153.7
30°	4925.3	4965.7	5073.2	5089.3	5065.1	5062.4	4997.9	4868.9	4772.1	4696.8	4284.1
32.5°	5149.8	5186.1	5272.1	5278.9	5235.9	5241.2	5180.7	5062.4	5007.3	4980.4	4503.2
35°	5387.8	5406.6	5480.5	5472.4	5444.2	5440.2	5416.0	5303.1	5320.5	5368.9	4813.8
37.5°	5586.7	5624.3	5666.0	5672.7	5671.4	5684.8	5701.0	5647.2	5748.0	5899.9	5221.1
40°	5769.5	5801.8	5863.6	5885.1	5937.5	5964.4	6019.5	6020.9	6253.4	6503.5	5722.5
42.5°	5893.2	5948.3	6063.9	6102.9	6230.6	6311.3	6393.2	6480.6	6818.0	7139.3	6313.9
45°	6000.7	6073.3	6265.5	6386.5	6559.9	6658.1	6831.5	7014.3	7499.6	7920.3	6914.8
47.5°	6163.4	6227.9	6448.4	6662.1	6924.2	7037.1	7296.6	7569.5	8204.0	8665.0	7490.2
50°	6389.2	6428.2	6652.7	7000.9	7335.6	7480.7	7823.5	8217.4	8956.7	9400.3	7995.6
52.5°	6678.2	6694.4	6873.1	7336.9	7777.8	7958.0	8412.3	8872.0	9615.4	10038.9	8396.2
55°	7019.7	6992.8	7132.6	7693.1	8283.3	8518.5	9006.5	9534.8	10356.1	10555.0	8687.9
57.5°	7357.1	7315.4	7427.0	8126.0	8907.0	9190.6	9759.2	10217.6	11017.5	11037.6	8892.2
60°	7714.6	7683.7	7816.8	8634.1	9671.9	10007.9	10533.5	10926.1	11657.3	11373.7	8924.5
62.5°	8081.6	8031.9	8221.4	9205.4	10533.5	10838.7	11348.2	11678.8	12285.1	11498.7	8613.9
65°	8437.9	8415.0	8708.0	9884.3	11514.8	11861.7	12356.3	12580.8	12787.8	11310.5	7843.7
67.5°	8816.9	8862.6	9330.4	10790.3	12794.6	13230.1	13763.8	13552.7	12931.7	10419.3	6605.6
70°	9395.0	9424.5	10147.7	11977.3	14444.0	14969.6	15227.7	13898.2	12238.0	8726.9	4965.7
72.5°	9643.6	9774.0	10877.7	13223.4	16317.8	16639.1	15719.7	13127.9	10194.8	5928.1	2609.2
73°	9588.5	9744.5	10911.3	13412.9	16464.4	16801.8	15614.8	12731.4	9477.0	5105.5	2236.8
75°	8901.6	9093.8	10474.4	13254.3	16179.4	15977.7	13929.1	10850.8	6404.0	2321.5	1018.9
77.5°	7023.7	7078.8	8299.4	10702.9	12740.8	12367.1	10424.7	6781.7	2615.9	863.0	578.0
80°	3523.3	3726.3	4678.0	6131.1	8519.9	8397.5	6580.1	3207.4	1090.2	506.8	383.1
82.5°	1695.1	1838.9	2278.5	2989.6	4707.6	4596.0	3258.5	1752.9	692.3	295.7	225.8
85°	1091.5	1199.1	1450.4	1426.2	1935.7	1848.3	1463.9	1326.8	410.0	154.6	157.3
87.5°	720.5	789.1	946.4	756.8	704.4	637.2	646.6	747.4	80.7	59.1	21.5
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°	4182.0	4182.0	4182.0	4182.0	4182.0	4182.0	4182.0	4182.0	4182.0	4182.0	4182.0
2.5°	4136.3	4118.8	4061.0	4004.5	3950.7	3899.7	3866.1	3821.7	3792.1	3800.2	3812.3
5°	4032.7	3993.8	3891.6	3792.1	3698.0	3586.5	3496.4	3423.8	3368.7	3348.5	3344.5
7.5°	3923.9	3858.0	3711.5	3540.8	3380.8	3242.3	3082.4	3003.1	2910.3	2878.0	2867.3
10°	3858.0	3769.3	3563.6	3325.7	3085.1	2855.2	2681.8	2540.6	2412.9	2388.7	2376.6
12.5°	3839.2	3722.2	3445.3	3138.8	2818.9	2536.6	2279.8	2094.3	1970.7	1942.4	1900.8
15°	3828.4	3683.2	3335.1	2950.6	2544.7	2200.5	1930.3	1713.9	1601.0	1525.7	1527.1
17.5°	3819.0	3638.9	3211.4	2745.0	2308.1	1911.5	1613.1	1418.2	1314.7	1274.3	1270.3
20°	3805.6	3586.5	3068.9	2528.5	2037.9	1648.0	1377.9	1232.7	1162.8	1129.2	1127.8
22.5°	3800.2	3535.4	2929.1	2308.1	1798.6	1445.1	1221.9	1119.8	1075.4	1052.5	1052.5
25°	3813.6	3499.1	2782.6	2098.4	1586.2	1271.7	1114.4	1044.5	1018.9	1006.8	1002.8
27.5°	3855.3	3482.9	2637.4	1888.7	1391.3	1153.4	1041.8	993.4	974.6	965.2	966.5
30°	3934.6	3481.6	2494.9	1681.7	1246.1	1063.3	984.0	950.4	935.6	930.2	928.9
32.5°	4062.3	3511.2	2355.1	1510.9	1123.8	988.0	930.2	906.0	899.3	895.3	893.9
35°	4278.7	3594.5	2216.7	1355.0	1029.7	920.8	879.1	867.0	857.6	861.7	863.0
37.5°	4570.4	3738.4	2084.9	1232.7	958.4	871.1	836.1	825.4	820.0	824.0	828.1
40°	4961.6	3945.4	1974.7	1134.5	907.4	829.4	798.5	789.1	783.7	790.4	791.8
42.5°	5393.1	4184.6	1883.3	1057.9	865.7	794.5	764.9	754.1	750.1	754.1	755.5
45°	5836.7	4462.9	1836.2	1002.8	830.7	768.9	738.0	725.9	716.5	713.8	717.8
47.5°	6273.6	4704.9	1834.9	969.2	802.5	746.1	712.5	699.0	686.9	680.2	678.8
50°	6629.8	4897.1	1867.2	954.4	778.3	720.5	686.9	673.5	657.3	643.9	646.6
52.5°	6898.7	5022.1	1881.9	947.7	764.9	693.6	660.0	647.9	629.1	611.6	611.6
55°	7072.1	5051.7	1845.7	941.0	754.1	665.4	629.1	618.4	599.5	582.1	582.1
57.5°	7131.2	4960.3	1715.3	924.8	743.4	641.2	598.2	588.8	574.0	556.5	553.8
60°	6994.1	4651.1	1486.7	876.5	721.9	615.7	564.6	560.6	555.2	540.4	539.0
62.5°	6465.8	3995.1	1238.1	813.3	685.6	588.8	533.7	540.4	544.4	536.4	535.0
65°	5586.7	3243.7	1057.9	725.9	637.2	551.1	500.1	517.5	528.3	528.3	525.6
67.5°	4531.5	2490.9	891.2	650.6	576.7	500.1	462.4	475.9	483.9	481.2	488.0
70°	3220.8	1687.0	725.9	564.6	500.1	442.3	414.0	414.0	408.7	406.0	406.0
72.5°	1562.0	963.8	588.8	471.8	426.1	377.7	354.9	345.5	334.7	333.4	326.7
73°	1305.3	864.4	561.9	454.4	408.7	368.3	342.8	328.0	321.3	315.9	314.6
75°	794.5	656.0	469.1	383.1	348.2	317.2	294.4	280.9	274.2	270.2	268.8
77.5°	522.9	489.3	364.3	293.0	266.2	247.3	237.9	224.5	220.5	215.1	215.1
80°	389.8	373.7	260.8	207.0	190.9	174.8	172.1	169.4	158.6	151.9	149.2
82.5°	251.4	266.2	177.4	138.5	121.0	107.5	108.9	112.9	102.2	92.8	90.1
85°	178.8	192.2	107.5	63.2	51.1	44.4	49.7	44.4	45.7	36.3	29.6
87.5°	29.6	51.1	18.8	8.1	4.0	2.7	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)