

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: P453623

Luminaire Tested: **GALN-SA4C-830-U-SL4**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453623
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-SA4C-830-U-SL4
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3000K, 1050mA 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: 21633 lumens
Efficiency: N/A
Efficacy: 101.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

Input Watts (W): 213
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



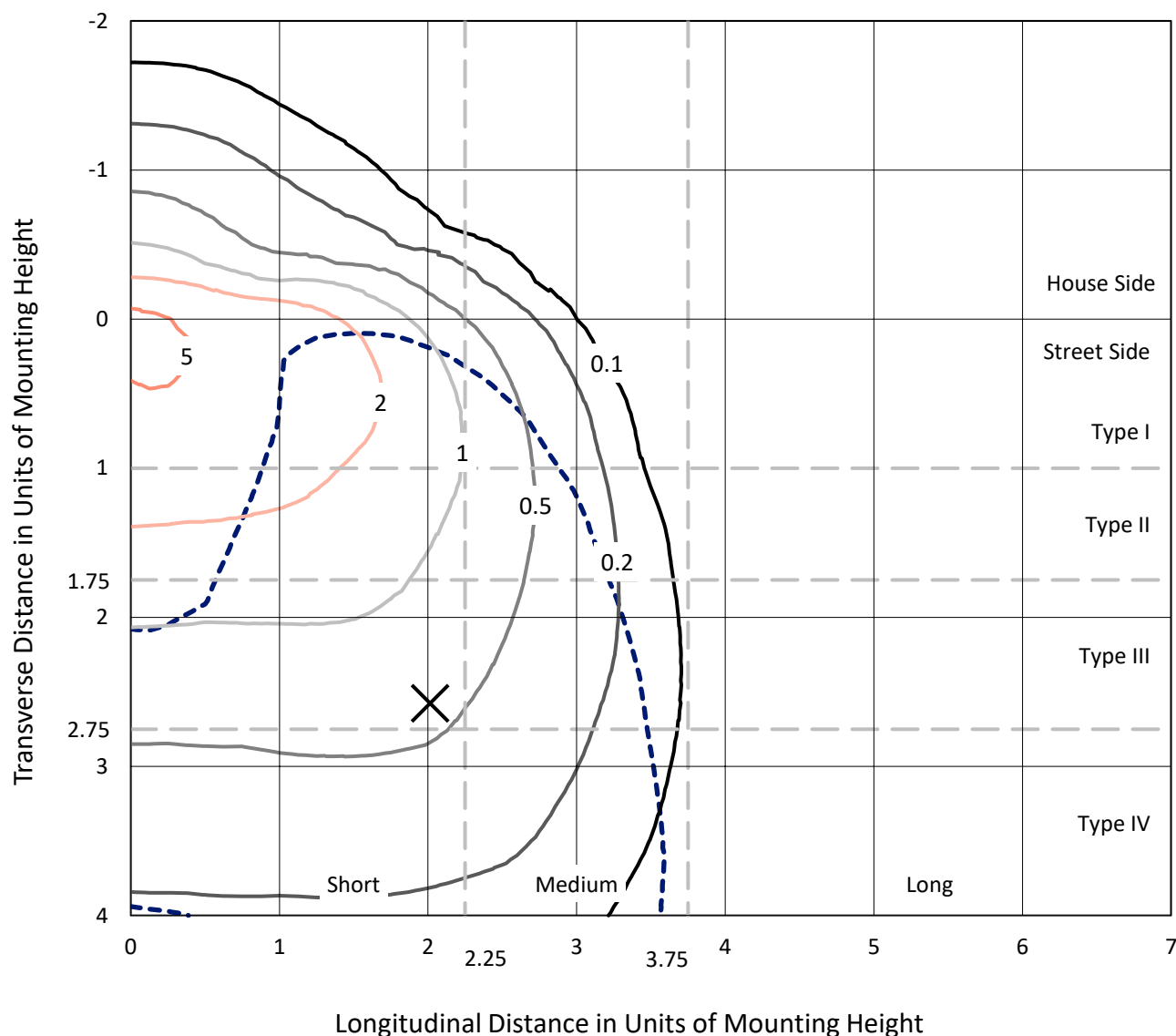
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd



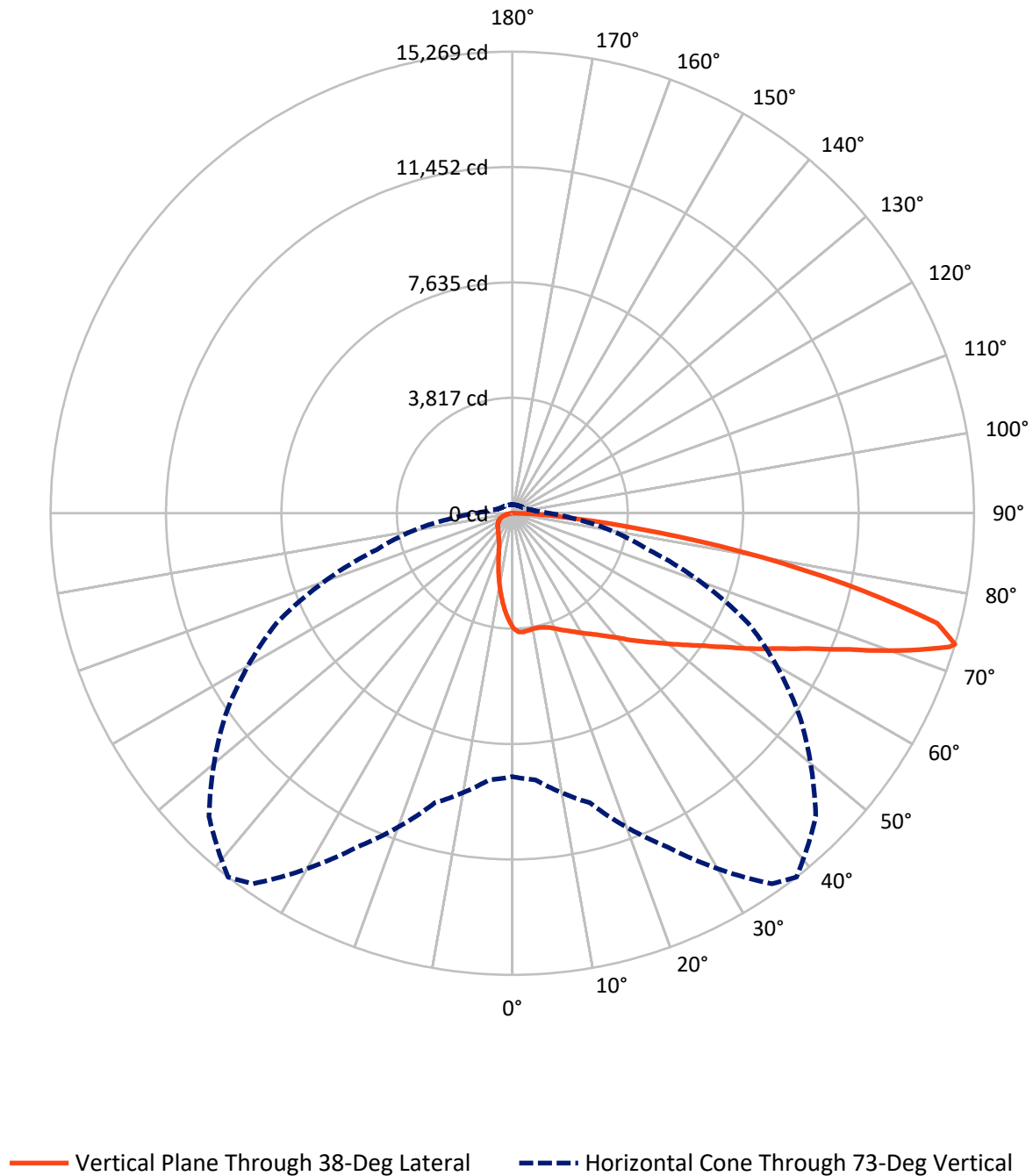
Based on 25 foot mounting height. Maximum calculated value = 6.2 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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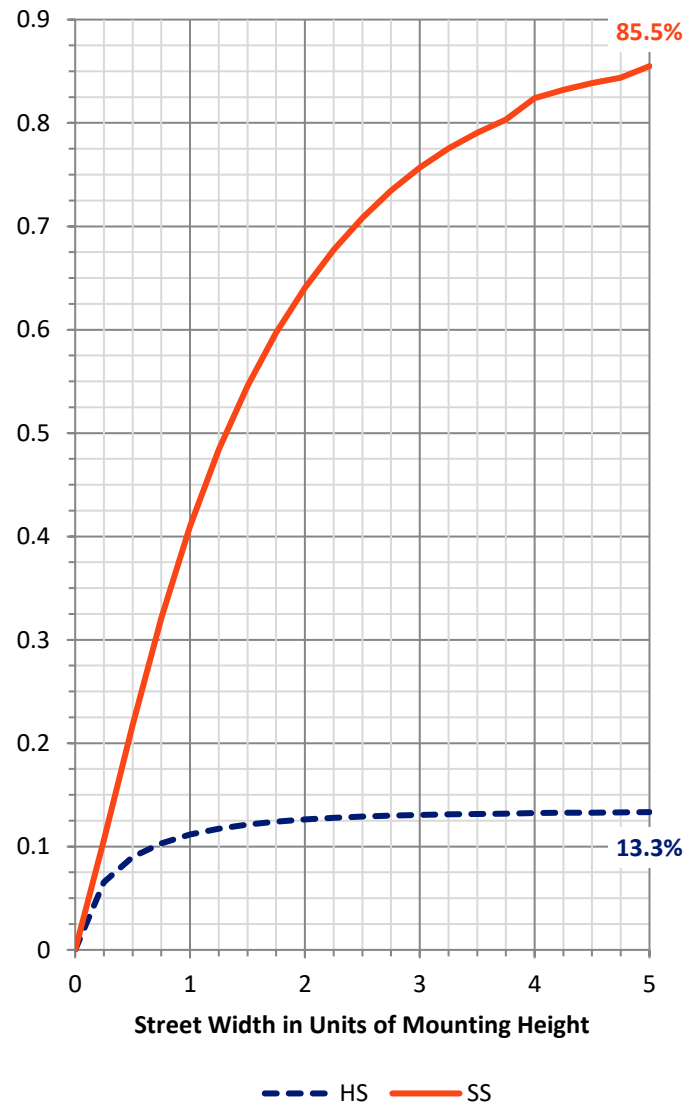
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2908.1	0.0	2908.1
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	18724.9	0.0	18724.9
	% Fixture	86.6	0.0	86.6
Total	Lumens	21633.0	0.0	21633.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	331.7	1.5
10°-20°	850.7	3.9
20°-30°	1324.7	6.1
30°-40°	1943.0	9.0
40°-50°	2882.3	13.3
50°-60°	4083.6	18.9
60°-70°	5180.2	23.9
70°-80°	4312.1	19.9
80°-90°	724.5	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°	21633.0	100.0
0°-180°	21633.0	100.0

Coefficient of Utilization



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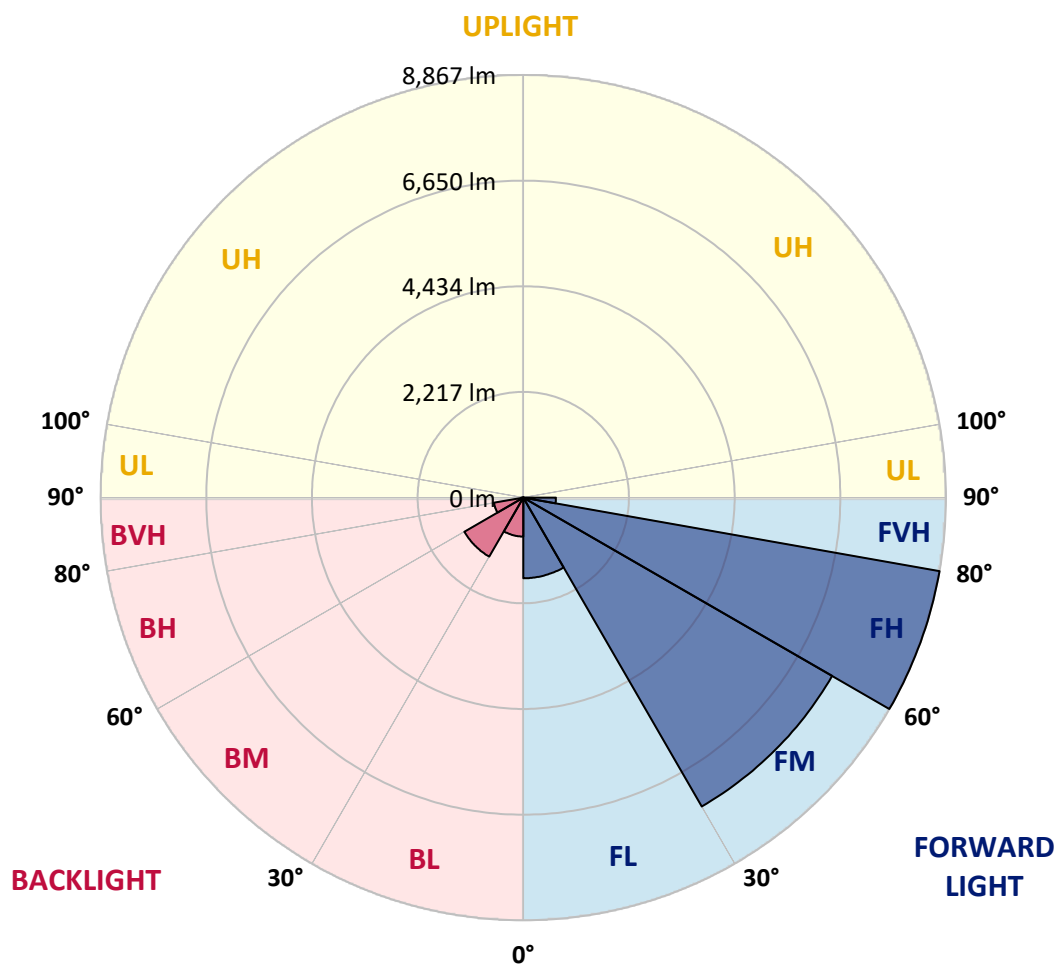
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1691.1	7.8			
FM	(30°-60°)	7481.3	34.6			
FH	(60°-80°)	8867.3	41.0			G4/12000
FVH	(80°-90°)	685.2	3.2			G4/750
BL	(0°-30°)	816.0	3.8	B2/1000		
BM	(30°-60°)	1427.7	6.6	B2/2500		
BH	(60°-80°)	625.1	2.9	B2/1000		G2/1000
BVH	(80°-90°)	39.3	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-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	3800.6	3800.6	3800.6	3800.6	3800.6	3800.6	3800.6	3800.6	3800.6	3800.6	3800.6
2.5°	3953.3	3972.8	3963.0	3949.6	3941.0	3932.5	3920.3	3884.8	3856.7	3826.2	3778.6
5°	3982.6	3994.8	3986.2	3969.1	3949.6	3941.0	3917.8	3871.4	3826.2	3774.9	3704.0
7.5°	3965.5	3970.4	3960.6	3939.8	3922.7	3906.8	3880.0	3828.6	3773.7	3711.4	3618.5
10°	3904.4	3922.7	3922.7	3905.6	3888.5	3880.0	3853.1	3804.2	3754.1	3683.3	3573.3
12.5°	3854.3	3873.9	3889.7	3884.8	3883.6	3883.6	3862.9	3826.2	3767.6	3700.4	3569.7
15°	3820.1	3843.3	3877.5	3897.1	3909.3	3912.9	3904.4	3872.6	3812.8	3734.6	3584.3
17.5°	3812.8	3840.9	3903.2	3945.9	3977.7	3976.5	3974.0	3930.0	3864.1	3783.4	3602.6
20°	3845.8	3882.4	3969.1	4036.3	4082.8	4074.2	4060.8	4003.3	3926.4	3836.0	3619.7
22.5°	3944.7	3982.6	4077.9	4151.2	4196.4	4196.4	4156.1	4080.3	3998.5	3897.1	3643.0
25°	4086.4	4128.0	4229.4	4303.9	4324.6	4308.8	4268.4	4176.8	4082.8	3985.0	3691.8
27.5°	4259.9	4310.0	4404.0	4466.4	4460.2	4448.0	4406.5	4289.2	4195.1	4106.0	3774.9
30°	4476.1	4512.8	4610.5	4625.2	4603.2	4600.7	4542.1	4424.8	4336.9	4268.4	3893.4
32.5°	4680.1	4713.1	4791.3	4797.4	4758.3	4763.2	4708.2	4600.7	4550.6	4526.2	4092.5
35°	4896.4	4913.5	4980.7	4973.3	4947.7	4944.0	4922.0	4819.4	4835.3	4879.3	4374.7
37.5°	5077.2	5111.4	5149.3	5155.4	5154.1	5166.4	5181.0	5132.1	5223.8	5361.8	4744.9
40°	5243.3	5272.6	5328.8	5348.4	5396.0	5420.5	5470.5	5471.8	5683.1	5910.3	5200.6
42.5°	5355.7	5405.8	5510.9	5546.3	5662.3	5735.6	5810.2	5889.6	6196.2	6488.2	5738.1
45°	5453.4	5519.4	5694.1	5804.1	5961.6	6050.8	6208.4	6374.6	6815.6	7198.0	6284.2
47.5°	5601.3	5659.9	5860.3	6054.5	6292.7	6395.3	6631.1	6879.1	7455.7	7874.8	6807.0
50°	5806.5	5841.9	6045.9	6362.4	6666.5	6798.5	7110.0	7467.9	8139.9	8543.0	7266.4
52.5°	6069.2	6083.8	6246.3	6667.8	7068.5	7232.2	7645.1	8062.9	8738.5	9123.3	7630.4
55°	6379.5	6355.0	6482.1	6991.5	7527.8	7741.6	8185.1	8665.2	9411.6	9592.4	7895.5
57.5°	6686.1	6648.2	6749.6	7384.9	8094.6	8352.4	8869.2	9285.8	10012.6	10031.0	8081.2
60°	7011.0	6982.9	7103.9	7846.7	8789.8	9095.2	9572.8	9929.6	10594.1	10336.4	8110.5
62.5°	7344.6	7299.4	7471.6	8365.9	9572.8	9850.2	10313.2	10613.7	11164.7	10450.0	7828.3
65°	7668.3	7647.5	7913.8	8982.8	10464.6	10779.8	11229.4	11433.4	11621.6	10279.0	7128.3
67.5°	8012.8	8054.3	8479.5	9806.2	11627.7	12023.5	12508.5	12316.7	11752.3	9469.0	6003.2
70°	8538.1	8565.0	9222.2	10884.9	13126.6	13604.3	13838.8	12630.6	11121.9	7930.9	4512.8
72.5°	8764.1	8882.6	9885.6	12017.4	14829.6	15121.6	14286.0	11930.6	9265.0	5387.5	2371.2
73°	8714.0	8855.7	9916.1	12189.6	14962.8	15269.4	14190.7	11570.2	8612.6	4639.8	2032.8
75°	8089.8	8264.5	9519.1	12045.5	14703.8	14520.5	12658.7	9861.2	5819.9	2109.8	926.0
77.5°	6383.1	6433.2	7542.5	9726.8	11578.8	11239.2	9473.9	6163.2	2377.3	784.3	525.3
80°	3201.9	3386.4	4251.3	5571.9	7742.8	7631.6	5980.0	2914.9	990.8	460.6	348.2
82.5°	1540.5	1671.2	2070.7	2716.9	4278.2	4176.8	2961.3	1593.0	629.1	268.8	205.2
85°	992.0	1089.7	1318.2	1296.2	1759.2	1679.8	1330.4	1205.8	372.6	140.5	142.9
87.5°	654.8	717.1	860.0	687.8	640.1	579.1	587.6	679.2	73.3	53.8	19.5
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°	3800.6	3800.6	3800.6	3800.6	3800.6	3800.6	3800.6	3800.6	3800.6	3800.6	3800.6
2.5°	3759.0	3743.1	3690.6	3639.3	3590.4	3544.0	3513.5	3473.1	3446.3	3453.6	3464.6
5°	3664.9	3629.5	3536.7	3446.3	3360.8	3259.4	3177.5	3111.5	3061.5	3043.1	3039.5
7.5°	3566.0	3506.1	3373.0	3217.8	3072.4	2946.6	2801.2	2729.2	2644.9	2615.6	2605.8
10°	3506.1	3425.5	3238.6	3022.4	2803.7	2594.8	2437.2	2308.9	2192.9	2170.9	2159.9
12.5°	3489.0	3382.7	3131.1	2852.6	2561.8	2305.3	2071.9	1903.3	1790.9	1765.3	1727.4
15°	3479.3	3347.3	3030.9	2681.5	2312.6	1999.8	1754.3	1557.6	1455.0	1386.6	1387.8
17.5°	3470.7	3307.0	2918.5	2494.6	2097.6	1737.2	1466.0	1288.8	1194.8	1158.1	1154.5
20°	3458.5	3259.4	2789.0	2297.9	1852.0	1497.7	1252.2	1120.3	1056.7	1026.2	1025.0
22.5°	3453.6	3212.9	2662.0	2097.6	1634.6	1313.3	1110.5	1017.6	977.3	956.6	956.6
25°	3465.8	3180.0	2528.8	1907.0	1441.5	1155.7	1012.7	949.2	926.0	915.0	911.4
27.5°	3503.7	3165.3	2396.9	1716.4	1264.4	1048.2	946.8	902.8	885.7	877.1	878.4
30°	3575.8	3164.1	2267.4	1528.3	1132.5	966.3	894.2	863.7	850.3	845.4	844.2
32.5°	3691.8	3190.9	2140.3	1373.1	1021.3	897.9	845.4	823.4	817.3	813.6	812.4
35°	3888.5	3266.7	2014.5	1231.4	935.8	836.8	799.0	788.0	779.4	783.1	784.3
37.5°	4153.6	3397.4	1894.8	1120.3	871.0	791.6	759.9	750.1	745.2	748.9	752.5
40°	4509.1	3585.5	1794.6	1031.1	824.6	753.8	725.7	717.1	712.2	718.3	719.6
42.5°	4901.3	3803.0	1711.5	961.4	786.7	722.0	695.1	685.3	681.7	685.3	686.6
45°	5304.4	4055.9	1668.8	911.4	755.0	698.8	670.7	659.7	651.1	648.7	652.4
47.5°	5701.4	4275.8	1667.6	880.8	729.3	678.0	647.5	635.3	624.3	618.2	616.9
50°	6025.2	4450.5	1696.9	867.4	707.3	654.8	624.3	612.0	597.4	585.2	587.6
52.5°	6269.5	4564.1	1710.3	861.3	695.1	630.4	599.8	588.8	571.7	555.9	555.9
55°	6427.1	4591.0	1677.3	855.2	685.3	604.7	571.7	562.0	544.9	529.0	529.0
57.5°	6480.9	4507.9	1558.8	840.5	675.6	582.7	543.6	535.1	521.6	505.8	503.3
60°	6356.2	4226.9	1351.1	796.5	656.0	559.5	513.1	509.4	504.5	491.1	489.9
62.5°	5876.1	3630.7	1125.1	739.1	623.0	535.1	485.0	491.1	494.8	487.4	486.2
65°	5077.2	2947.8	961.4	659.7	579.1	500.9	454.5	470.3	480.1	480.1	477.7
67.5°	4118.2	2263.7	810.0	591.3	524.1	454.5	420.2	432.5	439.8	437.4	443.5
70°	2927.1	1533.2	659.7	513.1	454.5	401.9	376.3	376.3	371.4	368.9	368.9
72.5°	1419.6	875.9	535.1	428.8	387.3	343.3	322.5	314.0	304.2	303.0	296.9
73°	1186.2	785.5	510.6	412.9	371.4	334.7	311.5	298.1	292.0	287.1	285.9
75°	722.0	596.2	426.4	348.2	316.4	288.3	267.5	255.3	249.2	245.6	244.3
77.5°	475.2	444.7	331.1	266.3	241.9	224.8	216.2	204.0	200.4	195.5	195.5
80°	354.3	339.6	237.0	188.1	173.5	158.8	156.4	153.9	144.2	138.0	135.6
82.5°	228.4	241.9	161.3	125.8	109.9	97.7	99.0	102.6	92.8	84.3	81.9
85°	162.5	174.7	97.7	57.4	46.4	40.3	45.2	40.3	41.5	33.0	26.9
87.5°	26.9	46.4	17.1	7.3	3.7	2.4	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)