

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: P522236

Luminaire Tested: **CTN-CA8-480-722-U-T5R-HSS-HM-EX90**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522236
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-5)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-480-722-U-T5R-HSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (8) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 49042.9 lumens
Efficiency: N/A
Efficacy: 102.0 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B5 - U2 - G5

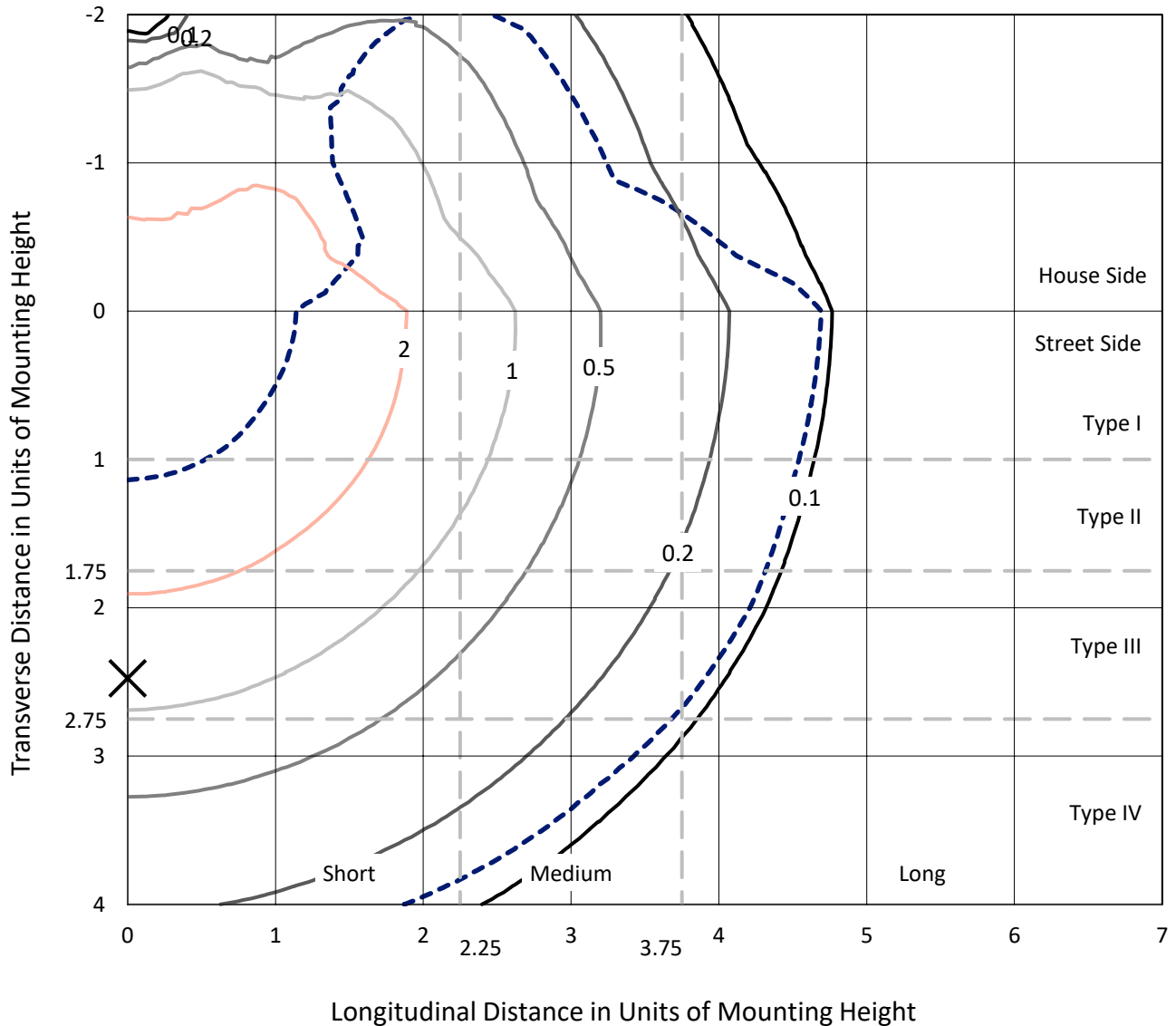
Input Watts (W): 480.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

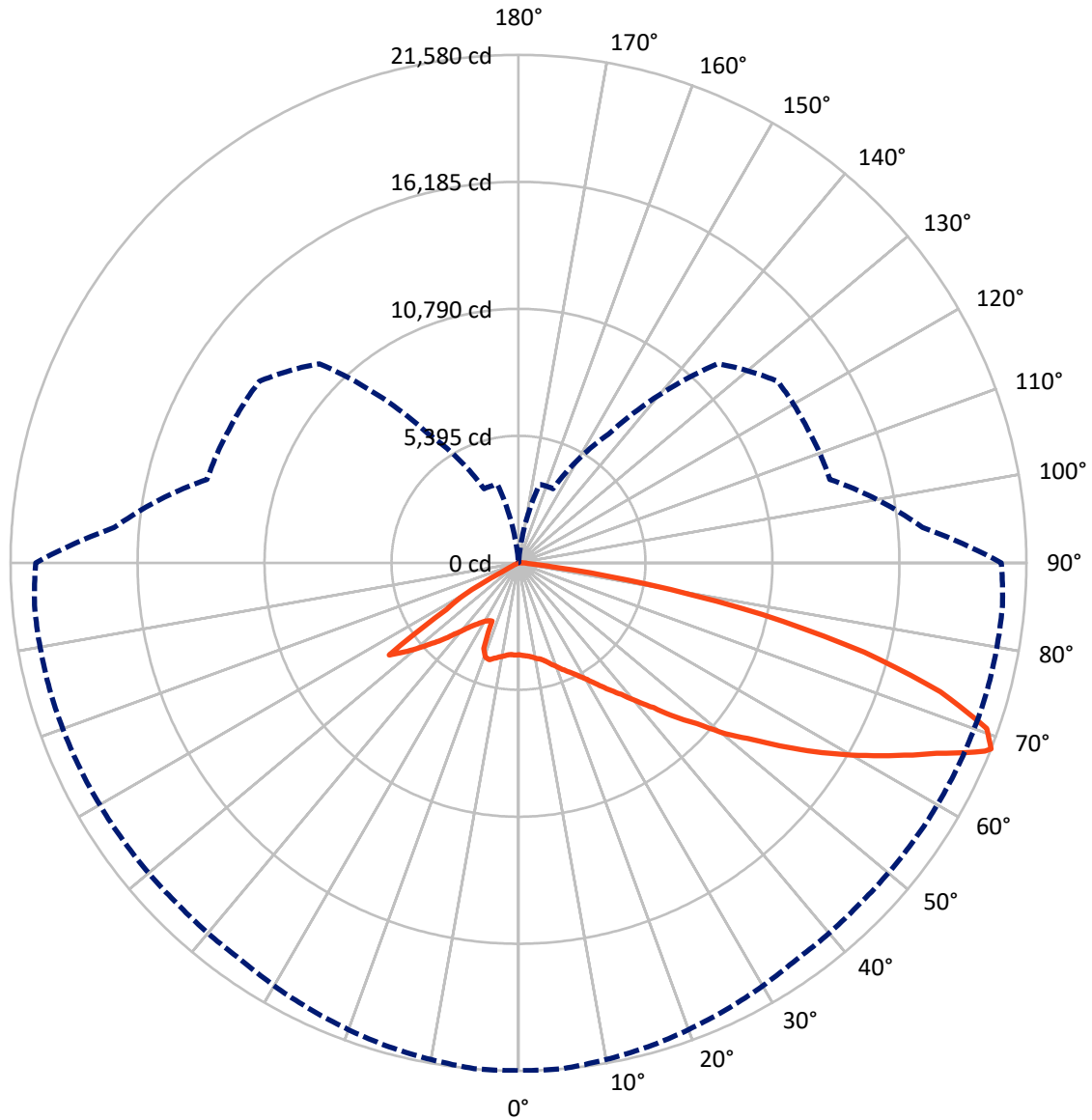
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.4 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical



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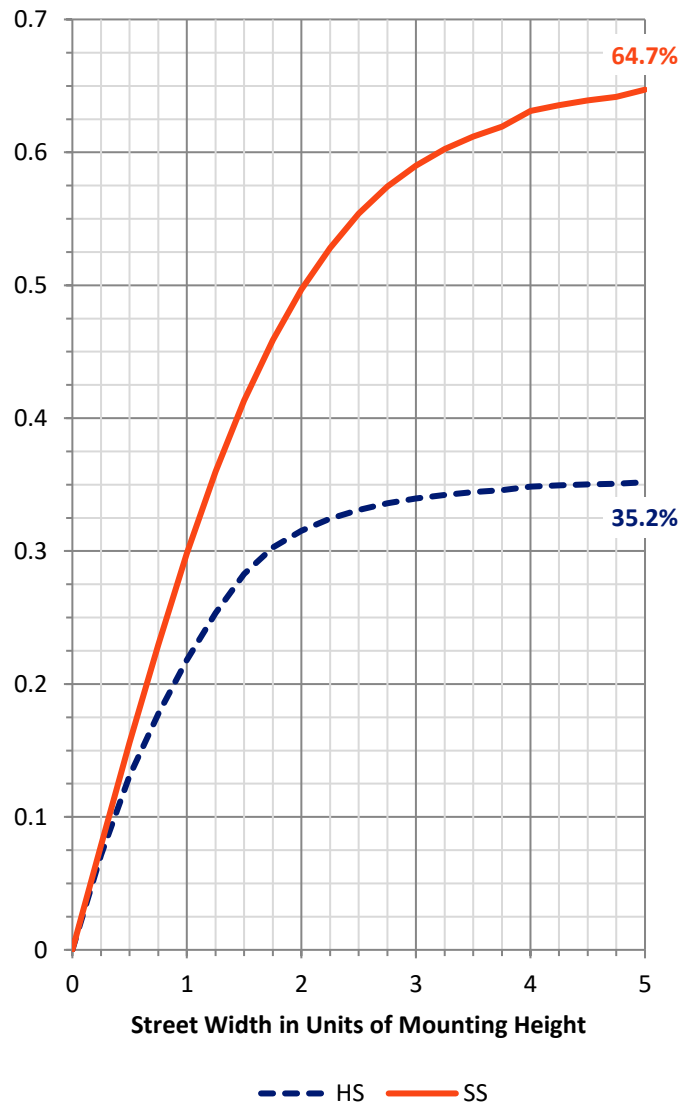
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	17259.8	2.9	17262.7
	% Fixture	35.2	0.0	35.2
Street Side	Lumens	31767.3	12.9	31780.2
	% Fixture	64.8	0.0	64.8
Total	Lumens	49027.1	15.8	49042.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	377.6	0.8
10°-20°	1209.7	2.5
20°-30°	2159.6	4.4
30°-40°	3513.2	7.2
40°-50°	5999.6	12.2
50°-60°	10010.6	20.4
60°-70°	13926.8	28.4
70°-80°	10795.4	22.0
80°-90°	1034.5	2.1
90°-100°	12.5	0.0
100°-110°	1.0	0.0
110°-120°	0.5	0.0
120°-130°	0.4	0.0
130°-140°	0.4	0.0
140°-150°	0.4	0.0
150°-160°	0.3	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-90°	49027.1	100.0
0°-180°	49042.9	100.0

Coefficient of Utilization

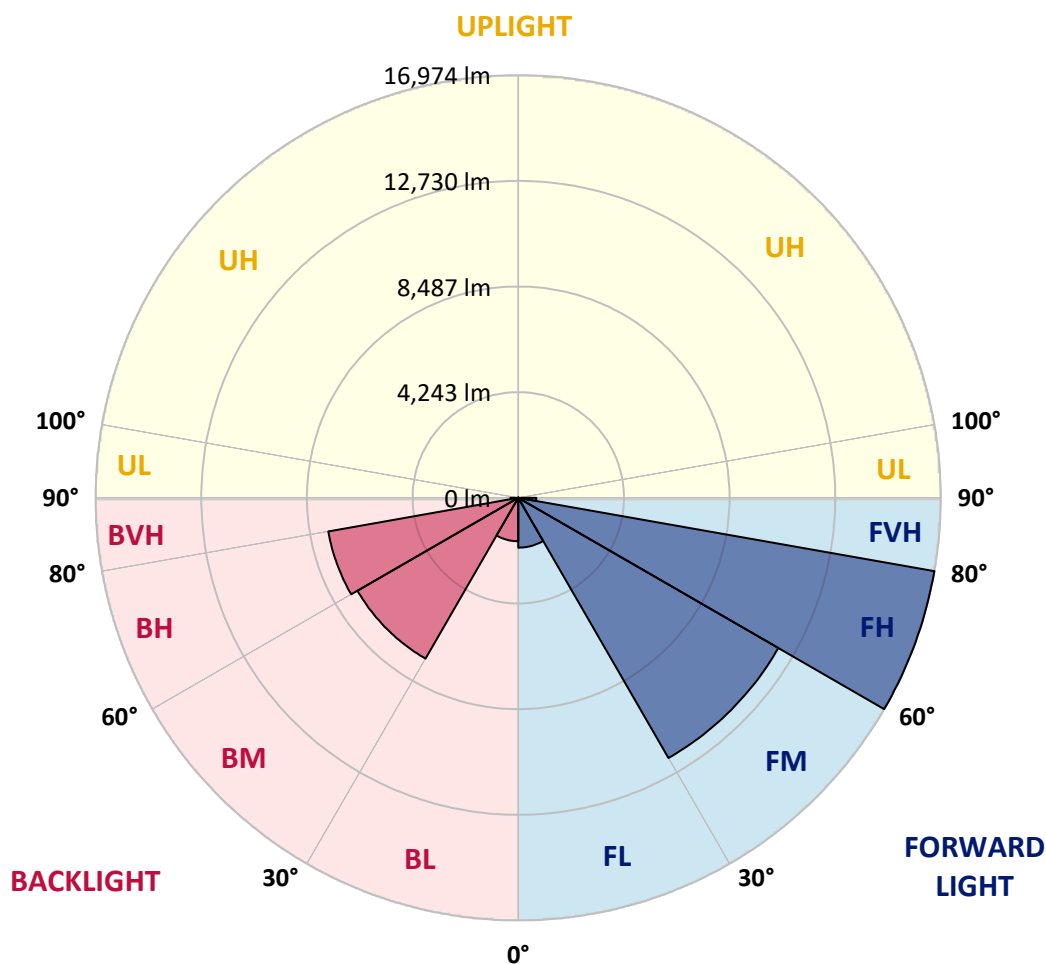


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2001.6	4.1			
FM (30°-60°)	12068.0	24.6			
FH (60°-80°)	16974.0	34.6			G5
FVH (80°-90°)	723.7	1.5			G4/750
BL (0°-30°)	1745.3	3.6	B3/2500		
BM (30°-60°)	7455.5	15.2	B4/8500		
BH (60°-80°)	7748.3	15.8	B5		G5
BVH (80°-90°)	310.8	0.6			G3/500
UL (90°-100°)	12.5	0.0		U2/50	
UH (100°-180°)	3.3	0.0		U1/10	

BUG Rating: B5-U2-G5
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3903.0	3903.0	3903.0	3903.0	3903.0	3903.0	3903.0	3903.0	3903.0	3903.0	3903.0
2.5°	3947.3	3941.8	3938.1	3962.0	3893.8	3921.5	3903.0	3927.0	3921.5	3932.5	3934.4
5°	3975.0	3965.7	3952.8	3978.7	3938.1	3956.5	3936.2	3947.3	3912.2	3941.8	3945.4
7.5°	4037.7	4011.9	4010.0	4017.4	3989.7	4002.6	3967.6	3980.5	3962.0	3951.0	3962.0
10°	4131.8	4109.7	4085.7	4100.5	4054.3	4070.9	4034.0	4045.1	4035.9	4011.9	4034.0
12.5°	4196.4	4203.8	4187.2	4198.3	4157.7	4142.9	4130.0	4128.1	4122.6	4087.5	4082.0
15°	4340.4	4344.0	4314.5	4321.9	4312.7	4305.3	4286.8	4272.1	4242.5	4220.4	4205.6
17.5°	4528.6	4508.3	4480.6	4488.0	4513.8	4480.6	4469.5	4441.9	4399.4	4362.5	4355.1
20°	4726.0	4713.1	4687.3	4702.1	4700.2	4678.1	4683.6	4637.5	4576.6	4545.2	4521.2
22.5°	4945.6	4927.2	4908.7	4936.4	4914.3	4899.5	4894.0	4862.6	4786.9	4751.9	4746.3
25°	5165.2	5156.0	5168.9	5159.7	5128.3	5117.3	5124.6	5113.6	5025.0	4982.5	4956.7
27.5°	5440.2	5418.1	5438.4	5427.3	5394.1	5395.9	5397.8	5399.6	5300.0	5244.6	5207.7
30°	5753.9	5746.5	5772.4	5737.3	5705.9	5726.2	5742.8	5705.9	5619.2	5538.0	5525.1
32.5°	6161.8	6115.6	6145.1	6100.9	6052.9	6100.9	6130.4	6056.6	5986.4	5883.1	5901.6
35°	6613.9	6599.1	6599.1	6541.9	6516.1	6591.7	6621.3	6549.3	6440.4	6350.0	6327.8
37.5°	7093.7	7108.4	7154.6	7130.6	7106.6	7152.7	7219.2	7123.2	6983.0	6887.0	6861.2
40°	7730.3	7767.2	7798.6	7767.2	7739.6	7769.1	7844.7	7719.3	7621.5	7569.8	7514.4
42.5°	8415.0	8477.7	8457.4	8461.1	8485.1	8527.5	8603.2	8488.8	8376.2	8374.4	8293.2
45°	9341.4	9341.4	9298.9	9339.5	9335.8	9441.0	9474.2	9411.5	9317.4	9289.7	9219.6
47.5°	10206.8	10297.3	10280.7	10339.7	10293.6	10382.2	10494.7	10441.2	10332.3	10234.5	10219.8
50°	11413.7	11391.6	11369.4	11458.0	11450.6	11511.5	11614.9	11581.7	11430.3	11319.6	11299.3
52.5°	12474.8	12591.1	12563.4	12696.3	12622.5	12709.2	12832.8	12827.3	12642.8	12533.9	12502.5
55°	13814.6	13892.1	13886.5	14023.1	13921.6	14036.0	14139.4	14150.4	13949.3	13794.3	13842.3
57.5°	15209.7	15274.3	15237.4	15349.9	15250.3	15407.1	15469.9	15429.3	15311.2	15115.6	15187.5
60°	16606.7	16662.0	16704.5	16713.7	16656.5	16748.7	16807.8	16842.9	16656.5	16433.2	16519.9
62.5°	18025.8	18088.5	18051.6	18066.4	17907.7	18033.1	18107.0	18116.2	17902.1	17704.7	17765.6
65°	19520.5	19607.3	19474.4	19385.8	19190.2	19188.4	19286.2	19302.8	19151.4	19011.2	18987.2
67.5°	21371.4	21410.2	21126.0	20828.9	20498.6	20426.6	20494.9	20533.6	20620.4	20616.7	20507.8
68°	21580.0	21572.6	21284.7	20930.4	20576.1	20493.0	20526.3	20576.1	20633.3	20644.4	20513.3
70°	21105.7	21015.3	20851.0	20404.5	20053.8	19836.1	19719.8	19812.1	19657.1	19658.9	19413.5
72.5°	18747.3	18736.2	18433.6	18212.1	17900.3	17538.6	17372.5	17370.6	17385.4	17278.4	17025.6
75°	15185.7	15200.5	14848.0	14694.8	14598.9	14530.6	14565.7	14674.5	14685.6	14683.8	14595.2
77.5°	10590.7	10651.6	10557.5	10308.3	10575.9	10804.8	11245.8	11470.9	11399.0	11614.9	11751.4
80°	5550.9	5672.7	5676.4	5851.7	6067.6	6276.2	6656.3	6997.7	6746.7	6636.0	6521.6
82.5°	1459.7	1504.0	1570.4	1468.9	1500.3	1531.7	1826.9	1799.3	1660.8	1734.7	1845.4
85°	417.1	430.0	411.5	372.8	341.4	313.7	321.1	271.3	236.2	234.4	227.0
87.5°	293.4	315.6	278.7	239.9	215.9	201.1	193.8	164.2	132.9	116.3	92.3
90°	136.6	134.7	116.3	90.4	79.4	75.7	75.7	59.1	33.2	20.3	18.5
92.5°	57.2	59.1	48.0	38.8	33.2	25.8	20.3	12.9	7.4	3.7	1.8
95°	20.3	22.1	18.5	14.8	12.9	11.1	9.2	7.4	3.7	1.8	1.8
97.5°	5.5	5.5	5.5	5.5	5.5	5.5	5.5	3.7	3.7	1.8	1.8
100°	0.0	0.0	0.0	1.8	3.7	3.7	3.7	3.7	1.8	1.8	1.8
102.5°	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8	1.8	1.8	1.8
105°	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8	1.8	1.8
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8	1.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8
145°	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8	1.8
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8	1.8
150°	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8	1.8
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8	1.8
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8	1.8
160°	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8	1.8
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8	1.8
165°	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8	1.8	1.8
167.5°	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8	1.8	1.8
170°	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8	1.8	1.8	1.8
172.5°	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8	1.8	1.8	1.8
175°	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8	1.8	1.8	1.8
177.5°	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8	1.8	1.8	1.8
180°	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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3903.0	3903.0	3903.0	3903.0	3903.0	3903.0	3903.0	3903.0	3903.0	3903.0
2.5°	3930.7	3921.5	3917.8	3871.6	3884.5	3856.9	3921.5	3903.0	3899.3	3925.1
5°	3939.9	3897.5	3923.3	3893.8	3901.2	3860.6	3912.2	3890.1	3891.9	3904.8
7.5°	3945.4	3921.5	3947.3	3895.6	3915.9	3901.2	3938.1	3915.9	3938.1	3949.1
10°	4000.8	3989.7	3971.3	3956.5	3971.3	3936.2	3982.3	3978.7	3991.6	4024.8
12.5°	4076.5	4063.5	4045.1	4019.3	4030.3	4017.4	4052.5	4056.2	4080.2	4096.8
15°	4189.0	4172.4	4163.2	4137.4	4141.1	4131.8	4152.1	4155.8	4203.8	4198.3
17.5°	4347.7	4329.3	4336.7	4312.7	4303.4	4281.3	4244.4	4231.5	4288.7	4305.3
20°	4521.2	4500.9	4510.1	4489.8	4318.2	3969.4	4203.8	4364.3	4242.5	4233.3
22.5°	4718.7	4696.5	4703.9	4672.5	4460.3	3807.0	3312.5	3271.9	3736.9	3925.1
25°	4936.4	4906.9	4903.2	4862.6	4165.0	3447.2	3391.8	3319.9	2980.3	2710.9
27.5°	5205.8	5161.6	5139.4	4526.7	4135.5	3581.9	3498.9	3242.3	2749.6	2766.2
30°	5497.4	5432.8	5017.6	4613.5	4351.4	3740.6	3629.9	2841.9	2845.6	2838.2
32.5°	5829.6	5685.6	4916.1	4879.2	4609.8	3910.4	3013.5	2980.3	2984.0	2995.1
35°	6265.1	5277.8	5257.5	5259.4	4925.3	3783.0	3192.5	3161.2	3164.8	3172.2
37.5°	6357.4	5689.3	5693.0	5650.6	5261.2	3456.4	3410.3	3408.4	3401.1	3393.7
40°	6431.2	6207.9	6154.4	6086.1	4877.4	3722.1	3707.4	3696.3	3701.8	3716.6
42.5°	7008.8	6840.9	6789.2	6708.0	5002.8	4124.4	4076.5	4063.5	4078.3	4070.9
45°	7776.5	7636.2	7534.7	6202.4	5526.9	4561.8	4523.0	4506.4	4512.0	4558.1
47.5°	8588.4	8505.4	8195.4	6700.6	6137.8	5078.5	5039.8	5013.9	5023.1	5012.1
50°	9472.4	9396.7	7586.4	7451.7	6813.2	5635.8	5578.6	5569.4	5573.1	5571.2
52.5°	10432.0	8850.5	8407.6	8267.3	7525.5	6219.0	6198.7	6148.8	6159.9	6148.8
55°	11557.7	9322.9	9311.8	9147.6	8326.4	6896.2	6872.2	6802.1	6361.1	6746.7
57.5°	12626.1	10225.3	10225.3	10066.6	9145.7	7569.8	7531.0	7479.4	4521.2	3646.5
60°	13796.1	11129.5	11103.7	10972.7	9935.6	8212.0	6674.8	6660.0	2731.2	2740.4
62.5°	14807.4	11936.0	11982.1	11860.3	10695.9	6148.8	3092.9	3030.1	269.4	415.2
65°	15940.5	12827.3	12882.7	12757.2	11518.9	6521.6	3356.8	3325.4	60.9	55.4
67.5°	17224.9	13716.8	13591.3	13452.9	12000.6	6715.4	3487.8	3460.1	16.6	11.1
68°	17235.9	13698.3	13535.9	13441.8	11954.4	6678.5	3476.7	3450.9	16.6	11.1
70°	16350.1	13008.1	12845.7	12869.7	11382.4	6386.9	3332.8	3284.8	16.6	11.1
72.5°	14344.2	11576.1	11393.4	11264.3	10094.3	5678.3	2987.7	2897.3	16.6	11.1
75°	12273.7	9810.1	9507.4	9223.3	8121.6	4646.7	2450.7	2349.2	16.6	11.1
77.5°	9673.5	7477.5	7047.5	6861.2	6102.7	3432.4	1821.4	1710.7	16.6	9.2
80°	5346.1	4290.5	3925.1	3810.7	3489.6	2017.0	1044.5	978.1	14.8	9.2
82.5°	1382.2	1037.1	904.2	872.9	819.4	478.0	254.7	241.7	12.9	7.4
85°	197.5	145.8	160.5	190.1	182.7	123.6	88.6	75.7	11.1	5.5
87.5°	103.3	86.7	101.5	114.4	116.3	72.0	36.9	20.3	5.5	0.0
90°	16.6	16.6	18.5	20.3	20.3	9.2	7.4	0.0	0.0	0.0
92.5°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.8	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	1.8	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0
100°	1.8	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	1.8	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0
105°	1.8	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	1.8	3.7	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	1.8	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	1.8	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0
115°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)