

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: P522242

Luminaire Tested: **CTN-CA8-480-730-U-T5R-HSS-HM-EX90**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522242
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-CA8-480-730-U-T5R-HSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (8) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 59087 lumens
Efficiency: N/A
Efficacy: 122.9 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



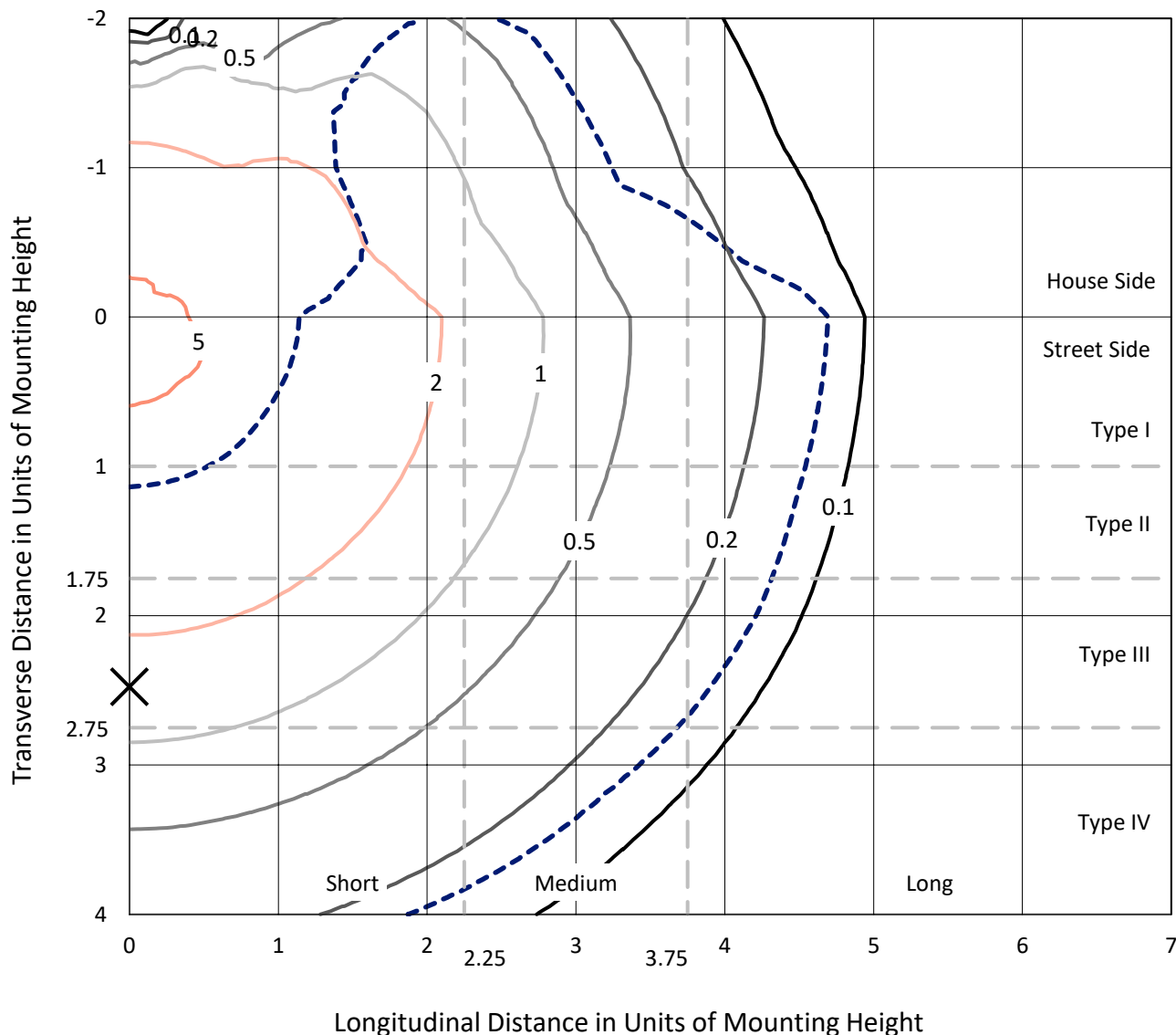
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

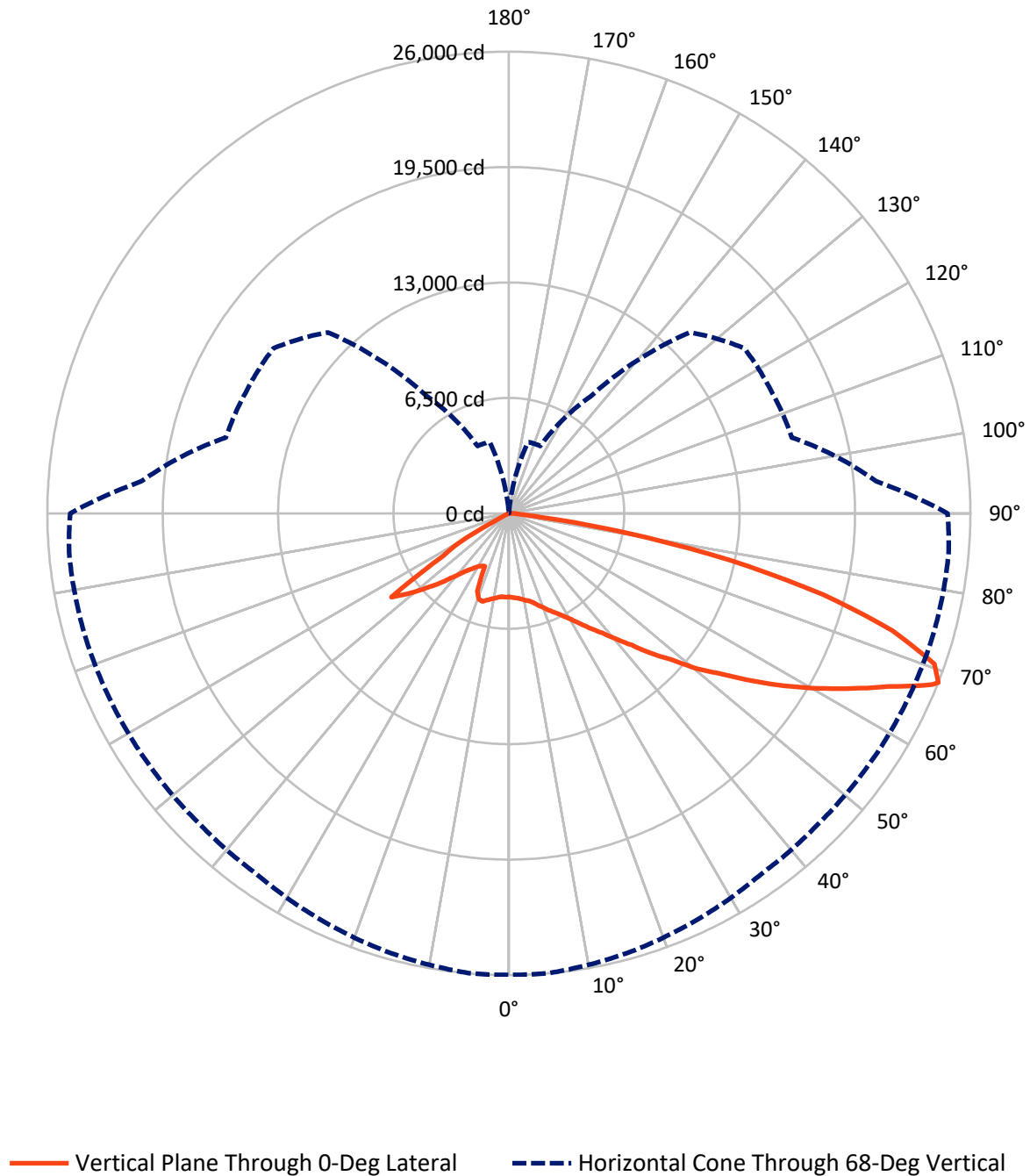


Based on 30 foot mounting height. Maximum calculated value = 5.3 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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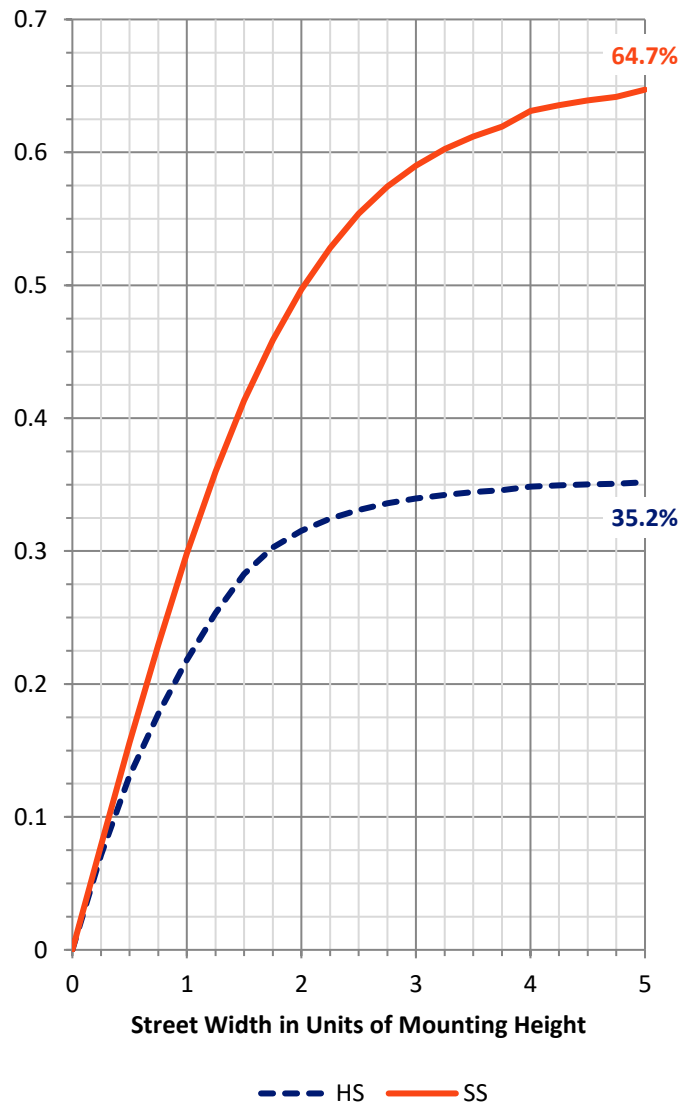
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	20794.6	3.5	20798.2
	% Fixture	35.2	0.0	35.2
Street Side	Lumens	38273.2	15.6	38288.8
	% Fixture	64.8	0.0	64.8
Total	Lumens	59067.9	19.1	59087.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	454.9	0.8
10°-20°	1457.5	2.5
20°-30°	2601.9	4.4
30°-40°	4232.8	7.2
40°-50°	7228.3	12.2
50°-60°	12060.8	20.4
60°-70°	16779.0	28.4
70°-80°	13006.3	22.0
80°-90°	1246.3	2.1
90°-100°	15.1	0.0
100°-110°	1.3	0.0
110°-120°	0.6	0.0
120°-130°	0.4	0.0
130°-140°	0.4	0.0
140°-150°	0.5	0.0
150°-160°	0.4	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-90°	59067.9	100.0
0°-180°	59087.0	100.0

Coefficient of Utilization



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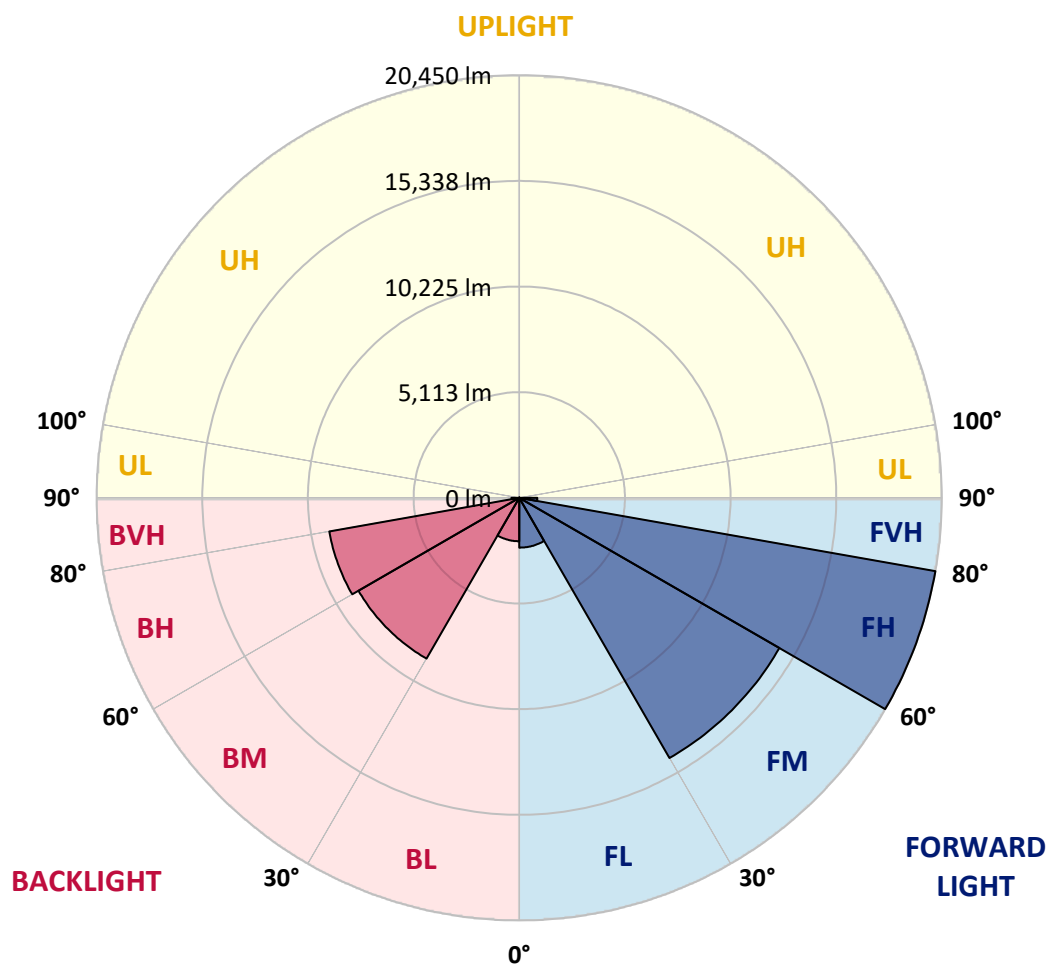
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2411.6	4.1			
FM	(30°-60°)	14539.5	24.6			
FH	(60°-80°)	20450.2	34.6			G5
FVH	(80°-90°)	871.9	1.5			G5
BL	(0°-30°)	2102.8	3.6	B3/2500		
BM	(30°-60°)	8982.3	15.2	B5		
BH	(60°-80°)	9335.1	15.8	B5		G5
BVH	(80°-90°)	374.4	0.6			G3/500
UL	(90°-100°)	15.1	0.0		U2/50	
UH	(100°-180°)	4.0	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°	4702.3	4702.3	4702.3	4702.3	4702.3	4702.3	4702.3	4702.3	4702.3	4702.3	4702.3
2.5°	4755.7	4749.0	4744.6	4773.5	4691.2	4724.6	4702.3	4731.2	4724.6	4737.9	4740.1
5°	4789.0	4777.9	4762.4	4793.5	4744.6	4766.8	4742.3	4755.7	4713.4	4749.0	4753.5
7.5°	4864.6	4833.5	4831.3	4840.2	4806.8	4822.4	4780.1	4795.7	4773.5	4760.1	4773.5
10°	4978.0	4951.3	4922.4	4940.2	4884.6	4904.7	4860.2	4873.5	4862.4	4833.5	4860.2
12.5°	5055.8	5064.7	5044.7	5058.1	5009.1	4991.4	4975.8	4973.6	4966.9	4924.7	4918.0
15°	5229.3	5233.7	5198.1	5207.0	5195.9	5187.0	5164.8	5147.0	5111.4	5084.7	5067.0
17.5°	5456.0	5431.6	5398.2	5407.1	5438.3	5398.2	5384.9	5351.5	5300.4	5255.9	5247.0
20°	5693.9	5678.4	5647.2	5665.0	5662.8	5636.1	5642.8	5587.2	5513.8	5476.0	5447.1
22.5°	5958.5	5936.3	5914.0	5947.4	5920.7	5902.9	5896.3	5858.5	5767.3	5725.1	5718.4
25°	6223.1	6212.0	6227.5	6216.4	6178.6	6165.3	6174.2	6160.8	6054.1	6003.0	5971.8
27.5°	6554.4	6527.7	6552.1	6538.8	6498.8	6501.0	6503.2	6505.4	6385.4	6318.7	6274.2
30°	6932.3	6923.4	6954.6	6912.3	6874.5	6899.0	6919.0	6874.5	6770.0	6672.2	6656.6
32.5°	7423.7	7368.1	7403.7	7350.3	7292.5	7350.3	7385.9	7296.9	7212.5	7088.0	7110.2
35°	7968.4	7950.6	7950.6	7881.7	7850.6	7941.7	7977.3	7890.6	7759.4	7650.5	7623.8
37.5°	8546.5	8564.2	8619.8	8590.9	8562.0	8617.6	8697.6	8582.0	8413.1	8297.4	8266.3
40°	9313.5	9358.0	9395.8	9358.0	9324.6	9360.2	9451.4	9300.2	9182.3	9120.1	9053.4
42.5°	10138.4	10214.0	10189.5	10193.9	10222.8	10274.0	10365.1	10227.3	10091.7	10089.4	9991.6
45°	11254.5	11254.5	11203.3	11252.2	11247.8	11374.5	11414.5	11339.0	11225.6	11192.2	11107.7
47.5°	12297.2	12406.1	12386.1	12457.3	12401.7	12508.4	12644.0	12579.6	12448.4	12330.6	12312.8
50°	13751.3	13724.6	13697.9	13804.6	13795.7	13869.1	13993.6	13953.6	13771.3	13637.9	13613.4
52.5°	15029.7	15169.7	15136.4	15296.5	15207.5	15312.0	15461.0	15454.3	15232.0	15100.8	15063.0
55°	16643.8	16737.2	16730.5	16895.0	16772.8	16910.6	17035.1	17048.4	16806.1	16619.3	16677.2
57.5°	18324.6	18402.5	18358.0	18493.6	18373.5	18562.5	18638.1	18589.2	18446.9	18211.2	18298.0
60°	20007.7	20074.4	20125.5	20136.6	20067.7	20178.9	20250.0	20292.3	20067.7	19798.7	19903.2
62.5°	21717.4	21793.0	21748.6	21766.3	21575.1	21726.3	21815.3	21826.4	21568.5	21330.6	21403.9
65°	23518.3	23622.8	23462.7	23356.0	23120.3	23118.1	23236.0	23256.0	23073.7	22904.7	22875.8
67.5°	25748.3	25795.0	25452.6	25094.7	24696.7	24610.0	24692.2	24738.9	24843.4	24839.0	24707.8
68°	25999.6	25990.7	25643.8	25216.9	24790.1	24690.0	24730.0	24790.1	24859.0	24872.3	24714.5
70°	25428.2	25319.2	25121.3	24583.3	24160.9	23898.5	23758.4	23869.6	23682.8	23685.1	23389.4
72.5°	22586.7	22573.4	22208.8	21942.0	21566.2	21130.5	20930.4	20928.1	20945.9	20817.0	20512.4
75°	18295.7	18313.5	17888.9	17704.3	17588.7	17506.5	17548.7	17679.9	17693.2	17691.0	17584.3
77.5°	12759.7	12833.0	12719.6	12419.5	12741.9	13017.6	13548.9	13820.2	13733.5	13993.6	14158.1
80°	6687.8	6834.5	6838.9	7050.2	7310.3	7561.5	8019.5	8430.8	8128.5	7995.1	7857.2
82.5°	1758.6	1812.0	1892.0	1769.8	1807.6	1845.4	2201.1	2167.7	2001.0	2089.9	2223.3
85°	502.5	518.0	495.8	449.1	411.3	378.0	386.9	326.8	284.6	282.4	273.5
87.5°	353.5	380.2	335.7	289.0	260.1	242.3	233.4	197.9	160.1	140.1	111.2
90°	164.5	162.3	140.1	108.9	95.6	91.2	91.2	71.1	40.0	24.5	22.2
92.5°	68.9	71.1	57.8	46.7	40.0	31.1	24.5	15.6	8.9	4.4	2.2
95°	24.5	26.7	22.2	17.8	15.6	13.3	11.1	8.9	4.4	2.2	2.2
97.5°	6.7	6.7	6.7	6.7	6.7	6.7	6.7	4.4	4.4	2.2	2.2
100°	0.0	0.0	0.0	2.2	4.4	4.4	4.4	4.4	2.2	2.2	2.2
102.5°	0.0	0.0	0.0	0.0	2.2	2.2	2.2	2.2	2.2	2.2	2.2
105°	0.0	0.0	0.0	0.0	0.0	2.2	2.2	2.2	2.2	2.2	2.2
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.2	2.2	2.2	2.2



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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	2.2	2.2	2.2	2.2
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.2	2.2	2.2
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.2	2.2
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.2
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.2
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.2
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.2
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.2
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.2
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.2
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.2	2.2	2.2
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.2	2.2	2.2
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.2	2.2	2.2
145°	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.2	2.2	2.2	2.2
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.2	2.2	2.2	2.2
150°	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.2	2.2	2.2	2.2
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.2	2.2	2.2	2.2
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.2	2.2	2.2
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.2	2.2	2.2	2.2
160°	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.2	2.2	2.2	2.2
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.2	2.2	2.2	2.2
165°	0.0	0.0	0.0	0.0	0.0	2.2	2.2	2.2	2.2	2.2	2.2
167.5°	0.0	0.0	0.0	0.0	0.0	2.2	2.2	2.2	2.2	2.2	2.2
170°	0.0	0.0	0.0	0.0	2.2	2.2	2.2	2.2	2.2	2.2	2.2
172.5°	0.0	0.0	0.0	0.0	2.2	2.2	2.2	2.2	2.2	2.2	2.2
175°	0.0	0.0	0.0	0.0	2.2	2.2	2.2	2.2	2.2	2.2	2.2
177.5°	0.0	0.0	0.0	0.0	2.2	2.2	2.2	2.2	2.2	2.2	2.2
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°	4702.3	4702.3	4702.3	4702.3	4702.3	4702.3	4702.3	4702.3	4702.3	4702.3
2.5°	4735.7	4724.6	4720.1	4664.5	4680.1	4646.7	4724.6	4702.3	4697.9	4729.0
5°	4746.8	4695.7	4726.8	4691.2	4700.1	4651.2	4713.4	4686.8	4689.0	4704.6
7.5°	4753.5	4724.6	4755.7	4693.4	4717.9	4700.1	4744.6	4717.9	4744.6	4757.9
10°	4820.2	4806.8	4784.6	4766.8	4784.6	4742.3	4797.9	4793.5	4809.0	4849.1
12.5°	4911.3	4895.8	4873.5	4842.4	4855.7	4840.2	4882.4	4886.9	4915.8	4935.8
15°	5046.9	5026.9	5015.8	4984.7	4989.1	4978.0	5002.5	5006.9	5064.7	5058.1
17.5°	5238.2	5215.9	5224.8	5195.9	5184.8	5158.1	5113.6	5098.1	5167.0	5187.0
20°	5447.1	5422.7	5433.8	5409.3	5202.6	4782.4	5064.7	5258.2	5111.4	5100.3
22.5°	5685.0	5658.4	5667.3	5629.5	5373.8	4586.7	3990.9	3942.0	4502.2	4729.0
25°	5947.4	5911.8	5907.4	5858.5	5018.0	4153.2	4086.5	3999.8	3590.7	3266.1
27.5°	6272.0	6218.6	6192.0	5453.8	4982.5	4315.5	4215.4	3906.4	3312.8	3332.8
30°	6623.3	6545.5	6045.2	5558.3	5242.6	4506.7	4373.3	3423.9	3428.4	3419.5
32.5°	7023.5	6850.1	5922.9	5878.5	5553.9	4711.2	3630.7	3590.7	3595.1	3608.5
35°	7548.2	6358.7	6334.2	6336.5	5934.1	4557.8	3846.4	3808.6	3813.0	3821.9
37.5°	7659.4	6854.5	6859.0	6807.8	6338.7	4164.3	4108.7	4106.5	4097.6	4088.7
40°	7748.3	7479.3	7414.8	7332.5	5876.2	4484.4	4466.7	4453.3	4460.0	4477.8
42.5°	8444.2	8241.9	8179.6	8081.8	6027.4	4969.1	4911.3	4895.8	4913.5	4904.7
45°	9369.1	9200.1	9077.8	7472.6	6658.9	5496.1	5449.4	5429.4	5436.0	5491.6
47.5°	10347.3	10247.3	9873.8	8072.9	7394.8	6118.6	6071.9	6040.8	6051.9	6038.5
50°	11412.3	11321.2	9140.1	8977.8	8208.5	6790.0	6721.1	6710.0	6714.4	6712.2
52.5°	12568.5	10663.1	10129.5	9960.5	9066.7	7492.6	7468.1	7408.1	7421.5	7408.1
55°	13924.7	11232.2	11218.9	11021.0	10031.6	8308.6	8279.7	8195.2	7663.8	8128.5
57.5°	15212.0	12319.4	12319.4	12128.2	11018.8	9120.1	9073.4	9011.1	5447.1	4393.3
60°	16621.6	13408.9	13377.7	13219.9	11970.4	9893.8	8041.8	8024.0	3290.5	3301.6
62.5°	17840.0	14380.5	14436.0	14289.3	12886.4	7408.1	3726.3	3650.7	324.6	500.2
65°	19205.1	15454.3	15521.0	15369.8	13878.0	7857.2	4044.2	4006.4	73.4	66.7
67.5°	20752.5	16526.0	16374.8	16208.0	14458.3	8090.7	4202.1	4168.7	20.0	13.3
68°	20765.8	16503.7	16308.1	16194.7	14402.7	8046.2	4188.7	4157.6	20.0	13.3
70°	19698.7	15672.2	15476.6	15505.5	13713.5	7694.9	4015.3	3957.5	20.0	13.3
72.5°	17281.9	13946.9	13726.8	13571.2	12161.6	6841.2	3599.6	3490.6	20.0	13.3
75°	14787.3	11819.2	11454.6	11112.2	9784.8	5598.3	2952.6	2830.3	20.0	13.3
77.5°	11654.7	9008.9	8490.9	8266.3	7352.5	4135.4	2194.4	2061.0	20.0	11.1
80°	6441.0	5169.2	4729.0	4591.2	4204.3	2430.1	1258.4	1178.4	17.8	11.1
82.5°	1665.3	1249.5	1089.4	1051.6	987.2	575.8	306.8	291.3	15.6	8.9
85°	237.9	175.6	193.4	229.0	220.1	149.0	106.7	91.2	13.3	6.7
87.5°	124.5	104.5	122.3	137.8	140.1	86.7	44.5	24.5	6.7	0.0
90°	20.0	20.0	22.2	24.5	24.5	11.1	8.9	0.0	0.0	0.0
92.5°	2.2	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	2.2	2.2	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	2.2	2.2	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0
100°	2.2	2.2	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	2.2	2.2	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0
105°	2.2	2.2	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	2.2	4.4	2.2	2.2	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°	2.2	2.2	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	2.2	2.2	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0
115°	2.2	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	2.2	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	2.2	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	2.2	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	2.2	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	2.2	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	2.2	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	2.2	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	2.2	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	2.2	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	2.2	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	2.2	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	2.2	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	2.2	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	2.2	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	2.2	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	2.2	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	2.2	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	2.2	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	2.2	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	2.2	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	2.2	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	2.2	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	2.2	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	2.2	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	2.2	2.2	2.2	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)