

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: P579648

Luminaire Tested: **CTN-CA8-230-727-U-T5-HSS-HM-EX90**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579648
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-1)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 11/18/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-230-727-U-T5-HSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (8) 2700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24505 lumens
Efficiency: N/A
Efficacy: 107.3 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U2 - G4

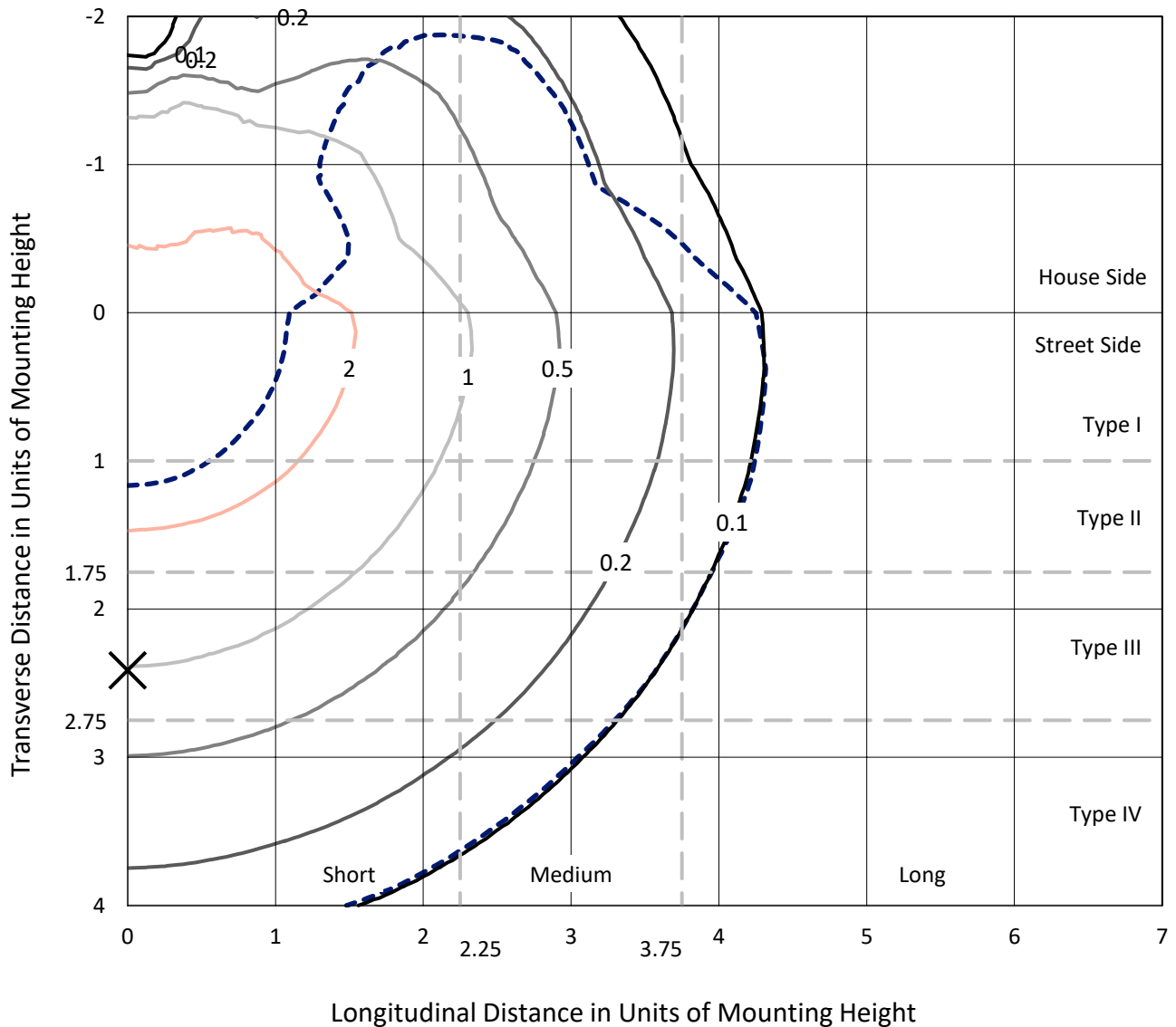
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

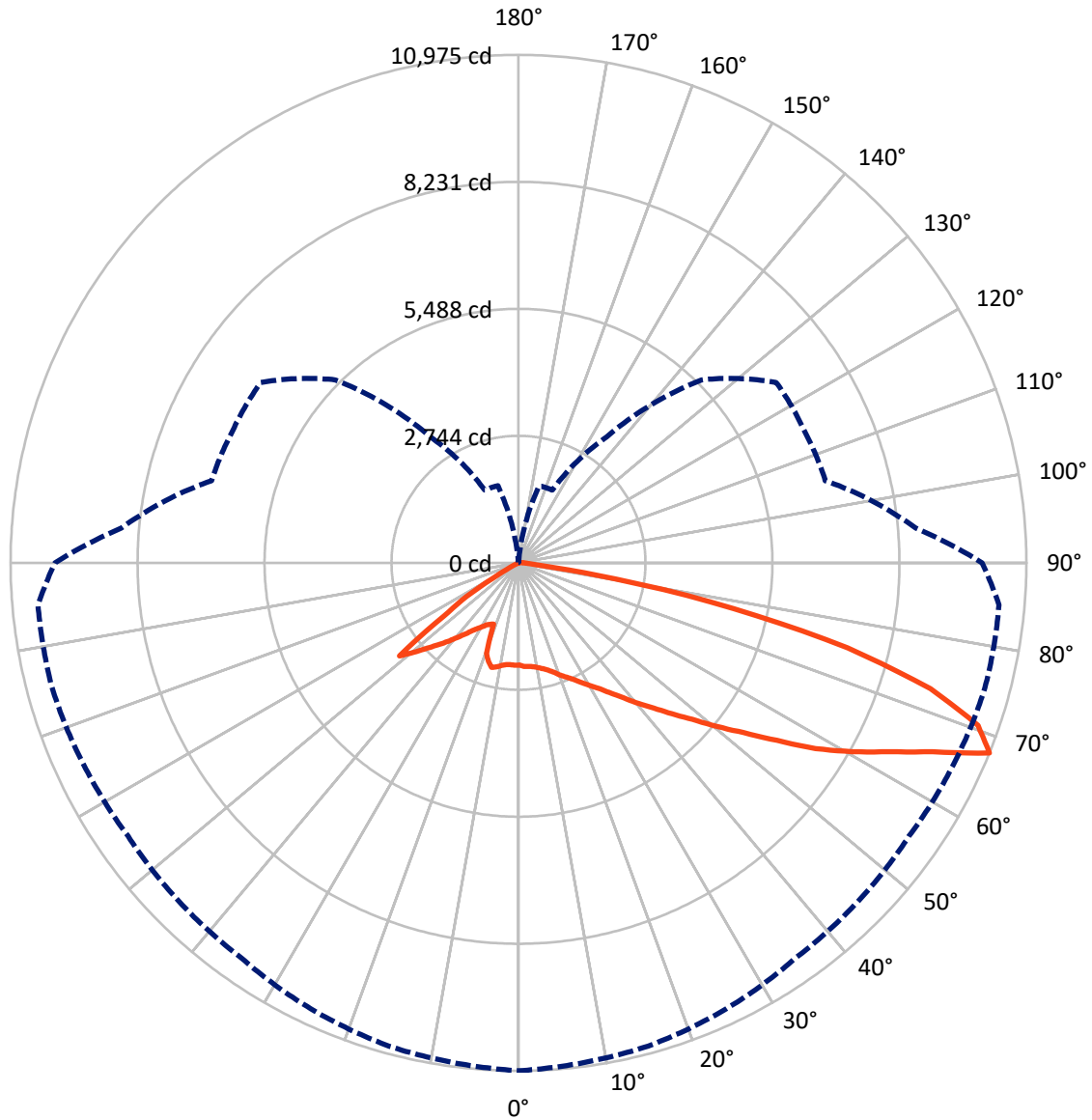
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.5 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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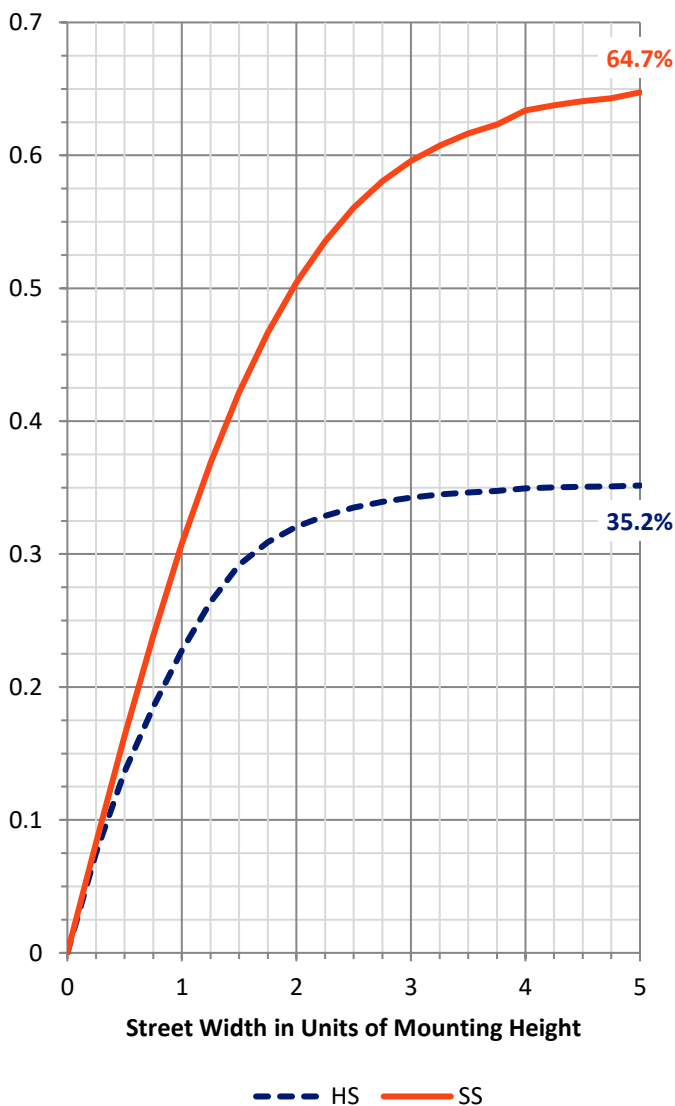
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8625.7	0.5	8626.2
	% Fixture	35.2	0.0	35.2
Street Side	Lumens	15861.5	17.3	15878.8
	% Fixture	64.7	0.1	64.8
Total	Lumens	24487.2	17.8	24505.0
	% Fixture	99.9	0.1	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	212.4	0.9
10°-20°	660.0	2.7
20°-30°	1144.2	4.7
30°-40°	1877.5	7.7
40°-50°	3131.7	12.8
50°-60°	5068.3	20.7
60°-70°	6995.9	28.5
70°-80°	5047.2	20.6
80°-90°	349.8	1.4
90°-100°	15.2	0.1
100°-110°	2.5	0.0
110°-120°	0.1	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°	24487.2	99.9
0°-180°	24505.0	100.0

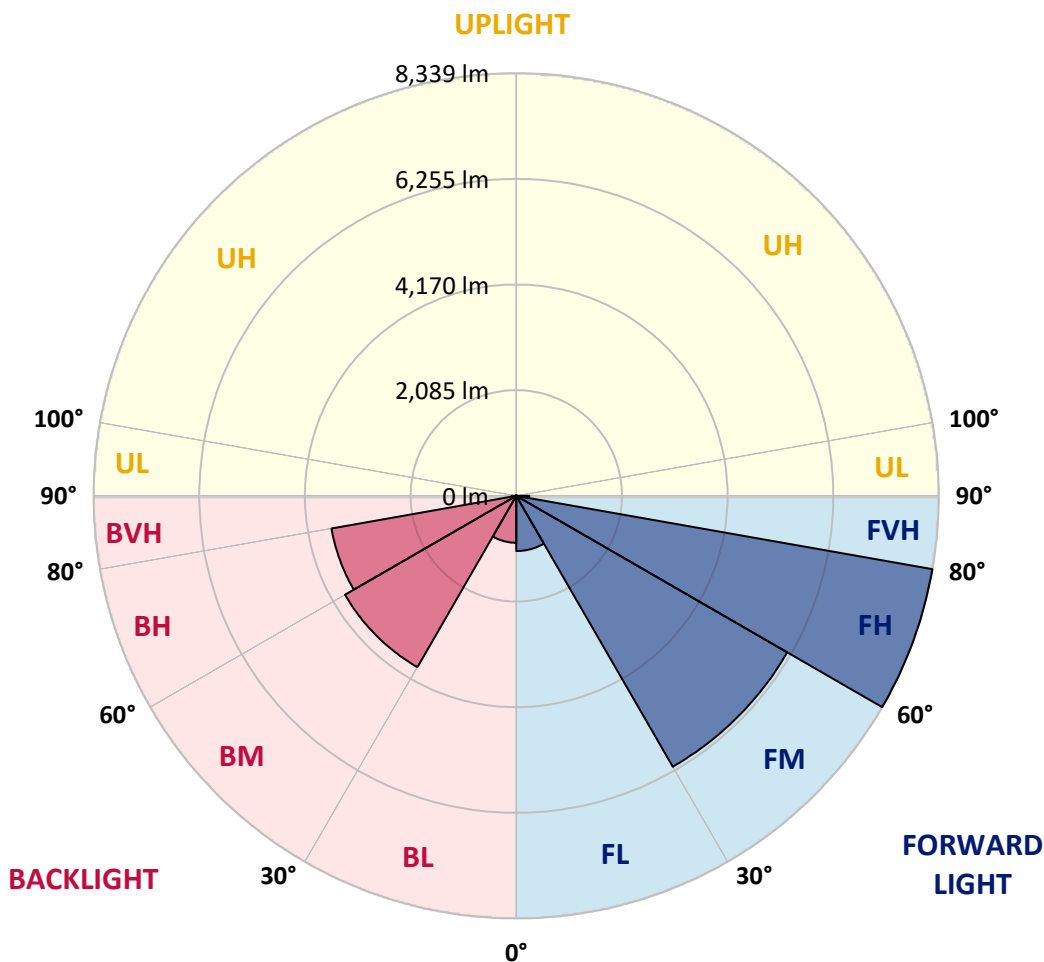


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1089.7	4.4			
FM (30°-60°)	6174.6	25.2			
FH (60°-80°)	8339.4	34.0			G4/12000
FVH (80°-90°)	257.8	1.1			G3/500
BL (0°-30°)	927.0	3.8	B2/1000		
BM (30°-60°)	3902.9	15.9	B3/5000		
BH (60°-80°)	3703.8	15.1	B4/5000		G4/5000
BVH (80°-90°)	92.1	0.4			G1/100
UL (90°-100°)	15.2	0.1		U2/50	
UH (100°-180°)	2.6	0.0		U1/10	

BUG Rating: B4-U2-G4
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2208.3	2208.3	2208.3	2208.3	2208.3	2208.3	2208.3	2208.3	2208.3	2208.3	2208.3
2.5°	2242.1	2229.0	2229.9	2243.0	2207.4	2220.5	2205.5	2218.6	2212.1	2216.8	2222.4
5°	2248.7	2232.7	2234.6	2250.5	2222.4	2232.7	2214.9	2222.4	2216.8	2222.4	2223.3
7.5°	2265.6	2249.6	2250.5	2262.7	2233.7	2241.2	2224.3	2228.0	2218.6	2229.0	2226.2
10°	2301.2	2286.2	2280.6	2290.9	2265.6	2266.5	2246.8	2250.5	2236.5	2250.5	2244.9
12.5°	2349.0	2328.4	2330.3	2335.9	2305.0	2306.8	2283.4	2289.0	2265.6	2285.3	2278.7
15°	2407.2	2381.9	2384.7	2394.1	2364.1	2361.2	2339.7	2339.7	2319.0	2334.0	2327.5
17.5°	2487.9	2459.7	2457.9	2464.4	2440.0	2440.0	2415.7	2412.8	2392.2	2404.4	2402.5
20°	2593.0	2561.1	2555.4	2567.6	2536.7	2540.4	2509.5	2506.7	2484.1	2491.6	2492.6
22.5°	2687.7	2662.4	2661.4	2680.2	2643.6	2648.3	2620.2	2612.7	2593.9	2604.2	2607.0
25°	2796.5	2792.8	2790.0	2796.5	2759.9	2759.9	2740.2	2733.7	2721.5	2729.0	2736.5
27.5°	2933.5	2931.6	2924.1	2925.1	2894.1	2898.8	2877.2	2873.5	2867.8	2866.9	2863.1
30°	3084.5	3076.1	3065.8	3072.3	3058.3	3063.0	3044.2	3032.0	3030.1	3031.1	3025.4
32.5°	3252.5	3241.2	3234.6	3245.9	3251.5	3264.6	3263.7	3229.9	3229.9	3244.0	3218.7
35°	3460.7	3442.9	3448.5	3463.5	3474.8	3508.6	3502.9	3479.5	3487.0	3493.6	3463.5
37.5°	3705.6	3693.4	3718.7	3746.8	3747.8	3795.6	3784.4	3790.0	3789.1	3780.6	3760.9
40°	3999.2	3979.5	4005.8	4027.3	4014.2	4071.4	4069.6	4094.9	4111.8	4140.9	4129.6
42.5°	4291.0	4275.9	4301.3	4348.2	4340.7	4406.3	4415.7	4455.1	4478.6	4523.6	4497.3
45°	4650.2	4641.8	4665.3	4701.8	4727.2	4814.4	4849.1	4866.0	4925.1	4979.5	4918.6
47.5°	5052.7	5064.0	5060.2	5126.8	5183.1	5289.1	5303.2	5357.6	5409.2	5469.2	5410.1
50°	5553.7	5534.9	5551.8	5615.6	5707.5	5784.4	5856.7	5934.5	5985.2	6047.1	5938.3
52.5°	6093.1	6109.0	6146.5	6245.0	6312.6	6403.6	6469.3	6562.1	6611.9	6665.3	6523.7
55°	6773.2	6786.3	6827.6	6928.9	6976.8	7080.0	7125.0	7217.9	7265.7	7289.2	7108.1
57.5°	7570.6	7526.5	7560.3	7612.8	7686.9	7798.6	7810.8	7898.0	7898.0	7928.0	7697.3
60°	8282.6	8252.6	8288.3	8363.3	8392.4	8493.7	8483.4	8554.7	8573.5	8550.9	8275.1
62.5°	8984.4	8990.0	9035.9	9060.3	9049.1	9109.1	9133.5	9208.6	9177.6	9185.1	8867.1
65°	9836.2	9849.3	9844.6	9799.6	9698.3	9816.5	9809.9	9929.0	9936.5	10004.1	9634.5
67.5°	10975.0	10916.9	10810.9	10629.8	10429.1	10359.6	10298.7	10357.8	10433.7	10421.5	10016.3
70°	10532.2	10437.5	10382.1	10224.5	9956.2	9817.4	9690.8	9701.1	9811.8	9822.1	9407.4
72.5°	9310.8	9263.0	9050.0	8912.1	8728.2	8621.3	8468.4	8503.1	8647.6	8672.0	8341.7
75°	7344.5	7300.4	7108.1	7063.1	6972.1	7024.6	6987.1	7001.2	7117.5	7010.6	6812.6
77.5°	4753.4	4763.8	4733.7	4836.0	4832.2	4835.1	4972.0	4986.1	5099.6	5033.9	4842.6
80°	2131.4	2162.4	2235.5	2383.8	2293.7	2342.5	2395.0	2379.1	2493.5	2234.6	2327.5
82.5°	431.5	446.5	421.2	440.0	410.9	425.9	447.5	414.6	410.9	380.9	353.7
85°	222.3	225.1	224.2	219.5	193.3	178.2	171.7	144.5	130.4	127.6	118.2
87.5°	144.5	146.3	141.7	140.7	123.8	113.5	101.3	85.4	71.3	49.7	41.3
90°	88.2	88.2	83.5	78.8	70.4	62.9	50.7	36.6	21.6	8.4	4.7
92.5°	59.1	59.1	57.2	54.4	48.8	42.2	32.8	21.6	10.3	3.8	1.9
95°	37.5	37.5	36.6	35.6	31.9	27.2	20.6	13.1	6.6	2.8	0.9
97.5°	24.4	24.4	24.4	23.5	21.6	18.8	14.1	8.4	4.7	1.9	0.9
100°	15.0	15.9	15.0	15.0	14.1	12.2	9.4	5.6	3.8	1.9	0.9
102.5°	8.4	8.4	9.4	9.4	8.4	7.5	5.6	4.7	2.8	1.9	0.9
105°	3.8	3.8	4.7	4.7	4.7	3.8	3.8	2.8	1.9	1.9	0.9
107.5°	0.9	0.9	0.9	1.9	2.8	2.8	2.8	2.8	1.9	0.9	0.9
110°	0.0	0.0	0.0	0.9	0.9	1.9	1.9	1.9	1.9	0.9	0.9



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CANDELA DISTRIBUTION (continued):

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



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2208.3	2208.3	2208.3	2208.3	2208.3	2208.3	2208.3	2208.3	2208.3	2208.3
2.5°	2216.8	2205.5	2214.0	2199.9	2196.1	2183.9	2207.4	2211.1	2209.3	2213.0
5°	2218.6	2204.6	2214.9	2200.8	2199.9	2186.8	2211.1	2212.1	2205.5	2208.3
7.5°	2224.3	2211.1	2218.6	2202.7	2204.6	2188.6	2216.8	2215.8	2212.1	2218.6
10°	2244.9	2229.9	2232.7	2215.8	2220.5	2203.6	2238.3	2240.2	2236.5	2248.7
12.5°	2280.6	2259.9	2266.5	2246.8	2250.5	2233.7	2275.9	2278.7	2278.7	2298.4
15°	2329.3	2307.8	2321.8	2296.5	2297.5	2272.1	2304.0	2304.0	2307.8	2335.0
17.5°	2400.6	2374.4	2393.1	2369.7	2223.3	2168.0	2276.8	2343.4	2232.7	2223.3
20°	2488.8	2476.6	2487.0	2448.5	2211.1	1957.9	1760.8	1750.5	1969.1	2077.9
22.5°	2596.7	2584.5	2589.2	2540.4	1973.8	1795.6	1792.7	1774.0	1501.0	1425.9
25°	2723.4	2716.8	2706.5	2297.5	2040.4	1869.7	1847.2	1602.3	1445.6	1459.7
27.5°	2859.4	2839.7	2491.6	2386.6	2142.7	1943.8	1816.2	1496.3	1490.7	1503.8
30°	3011.4	2907.2	2550.7	2515.1	2261.8	2035.7	1580.7	1562.0	1562.0	1582.6
32.5°	3204.6	2714.9	2714.9	2696.2	2409.1	1787.1	1664.2	1653.0	1666.1	1674.5
35°	3175.5	2920.4	2950.4	2941.9	2608.9	1819.9	1798.4	1779.6	1782.4	1782.4
37.5°	3184.9	3195.2	3230.9	3194.3	2275.9	1962.5	1927.8	1924.1	1926.9	1933.5
40°	3479.5	3485.1	3498.2	3417.6	2445.7	2128.6	2080.7	2071.4	2080.7	2094.8
42.5°	3796.6	3812.5	3827.5	3108.0	2683.0	2317.2	2269.3	2251.5	2268.4	2283.4
45°	4171.8	4196.2	3966.4	3382.9	2951.3	2532.0	2481.3	2459.7	2470.1	2483.2
47.5°	4594.0	4632.4	3740.3	3732.8	3266.5	2786.2	2728.0	2686.8	2702.7	2701.8
50°	5070.5	4427.0	4132.4	4127.7	3618.3	3069.5	3009.5	2972.0	2984.2	2974.8
52.5°	5585.6	4548.0	4557.4	4556.4	3986.1	3374.4	3319.1	3272.2	3175.5	3264.6
55°	6112.8	4966.4	5002.0	4996.4	4371.6	3689.6	3630.5	3586.4	2343.4	1979.4
57.5°	6637.2	5403.6	5414.8	5427.9	4771.3	3993.6	3733.7	3429.8	1336.8	1330.3
60°	7155.0	5820.1	5842.6	5850.1	4987.0	3305.9	1526.3	1554.5	404.3	483.1
62.5°	7691.6	6231.0	6251.6	6245.0	5201.9	3074.2	1603.2	1571.3	37.5	34.7
65°	8376.5	6746.0	6716.9	6695.3	5540.5	3280.6	1722.4	1713.9	12.2	8.4
67.5°	8616.6	6863.3	6804.2	6796.7	5589.3	3324.7	1731.8	1725.2	12.2	8.4
70°	8072.5	6417.7	6316.3	6319.2	5200.9	3109.9	1615.4	1606.1	11.3	8.4
72.5°	7069.7	5668.1	5625.9	5402.6	4503.9	2735.6	1432.5	1396.9	11.3	7.5
75°	5804.1	4579.0	4485.1	4234.7	3584.5	2174.6	1124.8	1078.8	10.3	6.6
77.5°	4029.2	3211.2	3032.0	2776.8	2397.8	1441.9	756.1	697.0	9.4	6.6
80°	1826.5	1318.1	1324.6	1015.0	813.3	488.8	240.2	217.6	8.4	5.6
82.5°	318.0	234.5	220.5	213.0	177.3	120.1	73.2	62.9	7.5	3.8
85°	110.7	89.1	98.5	116.3	103.2	72.2	45.0	43.2	4.7	1.9
87.5°	37.5	39.4	46.0	55.3	48.8	28.1	16.9	12.2	0.9	0.0
90°	3.8	4.7	4.7	4.7	2.8	0.0	0.0	0.0	0.0	0.0
92.5°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.9	0.9	0.9	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°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	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)