

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: P647414

Luminaire Tested: **GALN-SA4D-835-U-T4FT-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P647414  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-29)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GALN-SA4D-835-U-T4FT-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 80 CRI, 3500K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 17255 lumens  
Efficiency: N/A  
Efficacy: 70.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G4

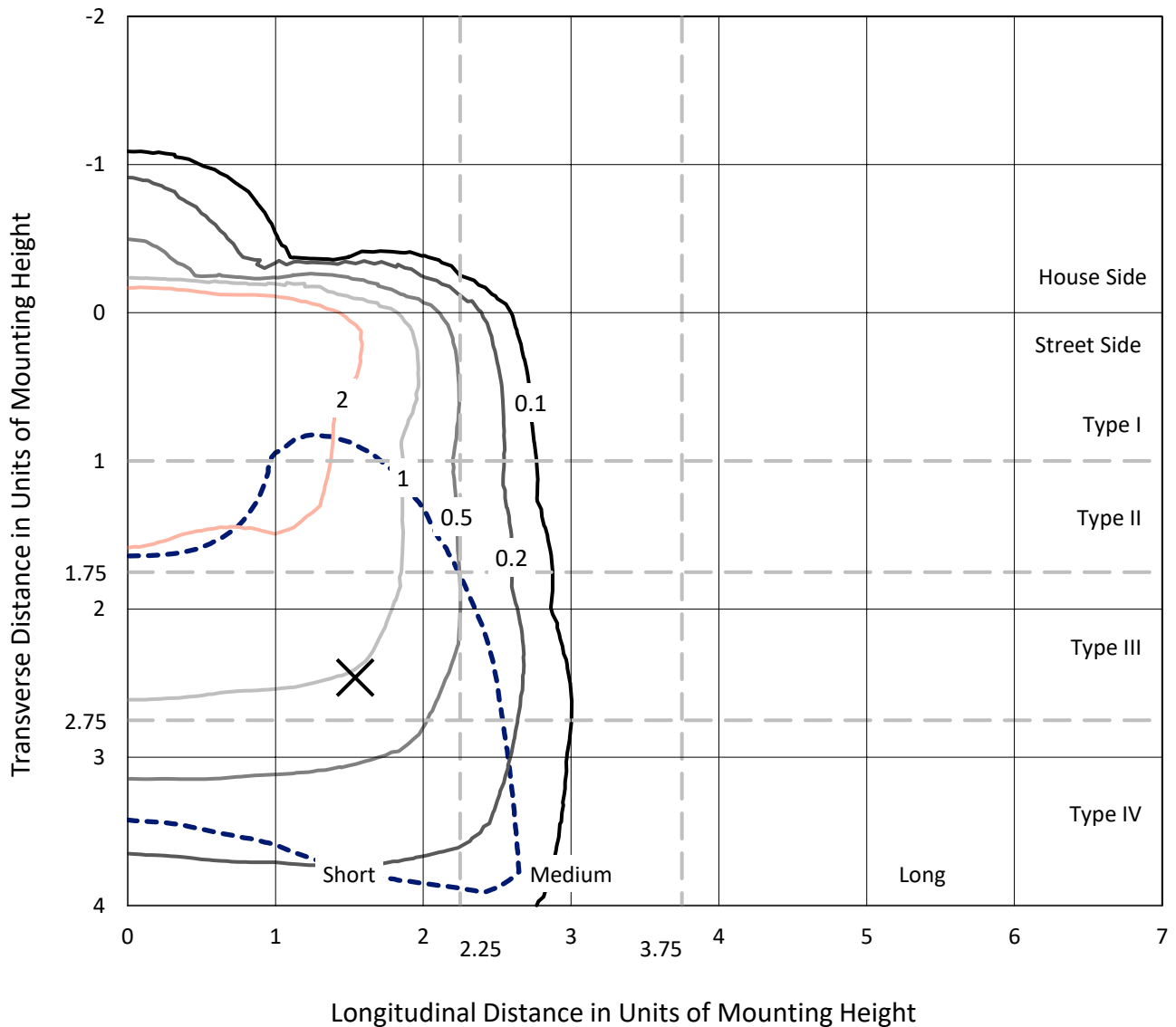
Input Watts (W): 245  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

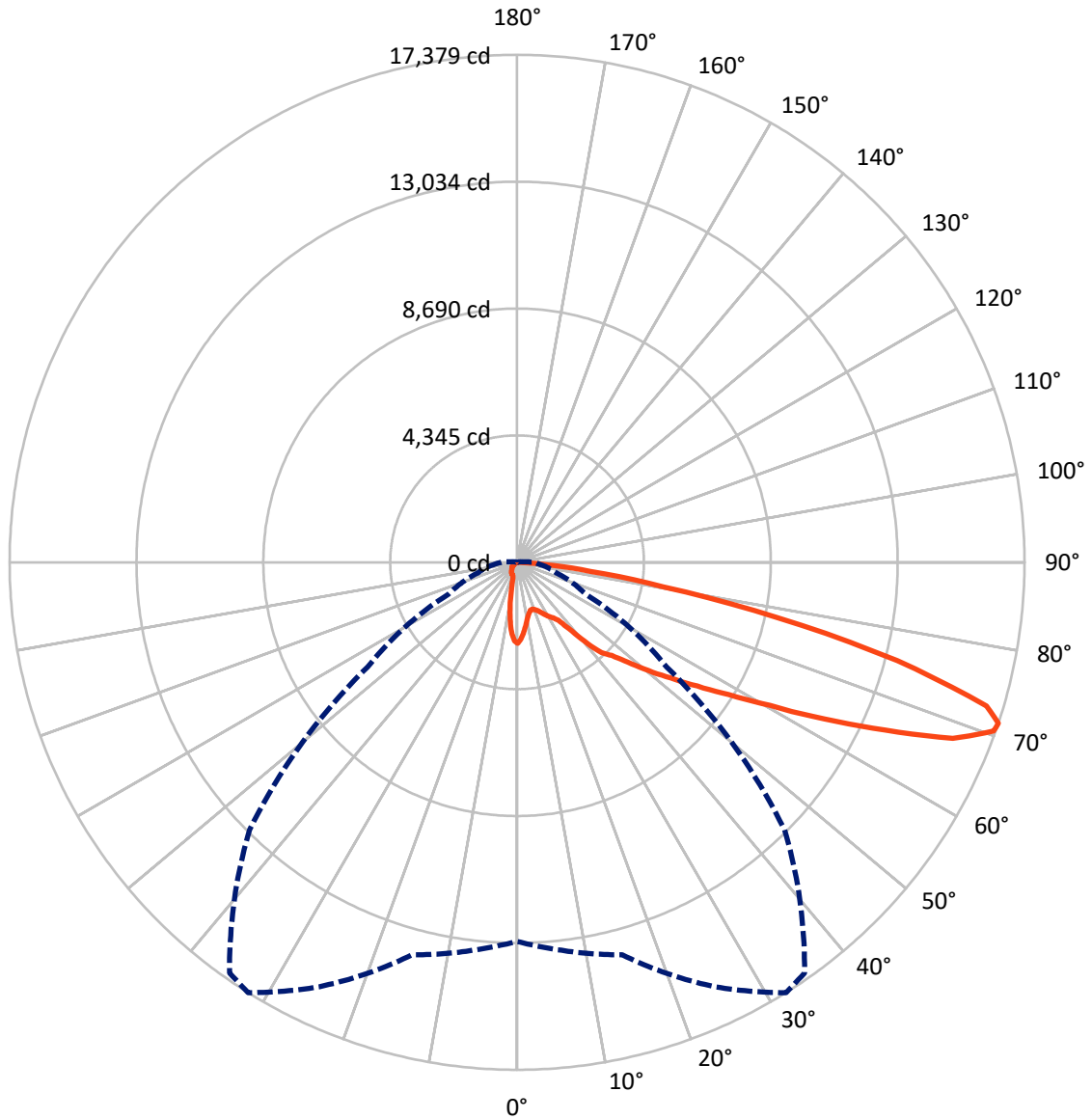
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.4 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 32-Deg Lateral      - - - Horizontal Cone Through 71-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1445.3	0.0	1445.3
	% Fixture	8.4	0.0	8.4
<b>Street Side</b>	Lumens	15809.7	0.0	15809.7
	% Fixture	91.6	0.0	91.6
<b>Total</b>	Lumens	17255.0	0.0	17255.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	225.6	1.3
10°-20°	489.7	2.8
20°-30°	761.8	4.4
30°-40°	1269.2	7.4
40°-50°	2360.9	13.7
50°-60°	3790.5	22.0
60°-70°	5098.4	29.5
70°-80°	3025.0	17.5
80°-90°	233.8	1.4
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°	17255.0	100.0
0°-180°	17255.0	100.0

**Coefficient of Utilization**



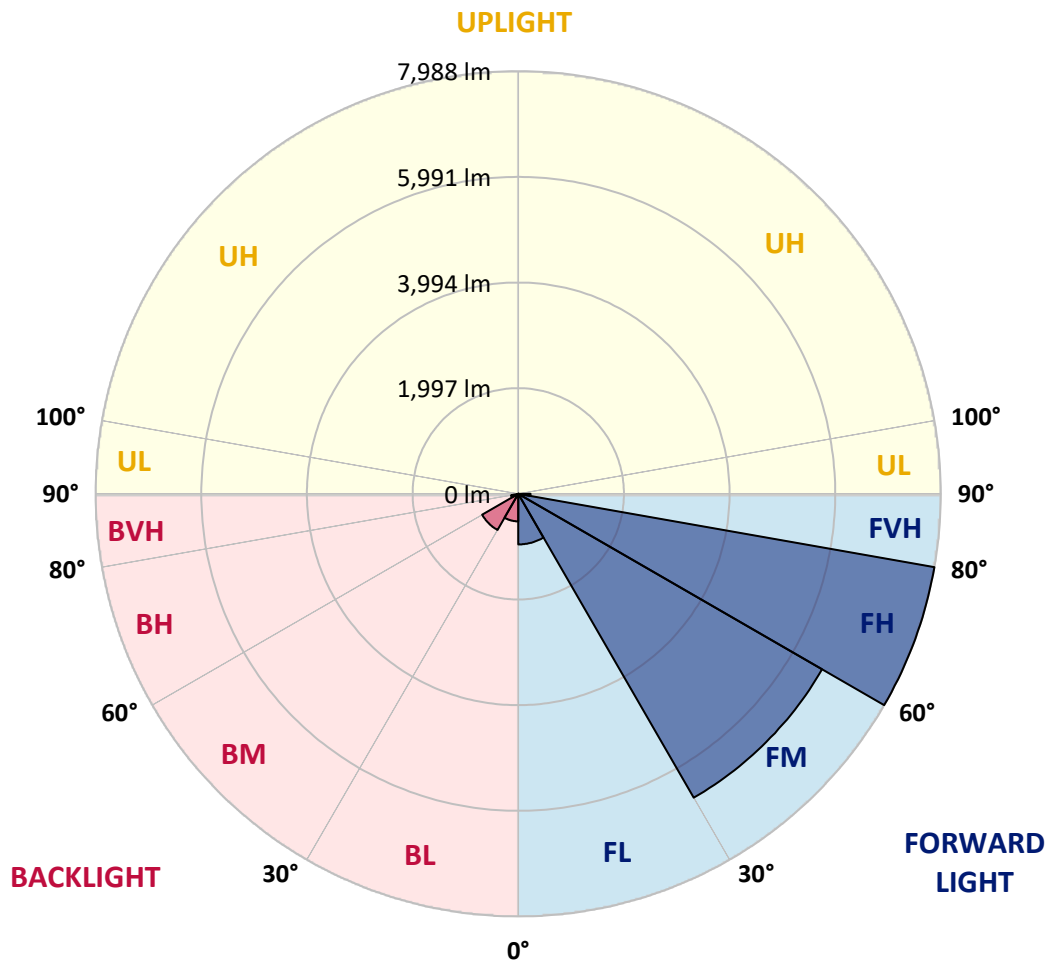
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	956.4	5.5			
FM (30°-60°)	6632.2	38.4			
FH (60°-80°)	7988.2	46.3			G4/12000
FVH (80°-90°)	232.9	1.3			G3/500
BL (0°-30°)	520.8	3.0	B2/1000		
BM (30°-60°)	788.4	4.6	B1/1000		
BH (60°-80°)	135.2	0.8	B1/500		G1/500
BVH (80°-90°)	0.9	0.0			G0/10
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°	32°	35°	45°	55°	65°	75°	85°
0°	2774.9	2774.9	2774.9	2774.9	2774.9	2774.9	2774.9	2774.9	2774.9	2774.9	2774.9
2.5°	2573.6	2600.0	2596.0	2605.4	2627.8	2637.1	2662.3	2690.1	2728.5	2755.0	2772.2
5°	2304.7	2324.6	2327.2	2373.5	2396.1	2421.2	2495.4	2576.2	2666.3	2737.8	2785.4
7.5°	2017.2	2027.8	2049.0	2110.0	2167.0	2192.1	2304.7	2445.1	2586.8	2720.5	2806.7
10°	1780.2	1792.1	1830.5	1895.4	1948.3	1981.5	2137.7	2313.9	2512.6	2711.3	2837.1
12.5°	1645.1	1651.7	1666.2	1724.6	1792.1	1827.8	1996.0	2197.4	2453.0	2715.3	2888.8
15°	1635.8	1633.1	1615.9	1639.8	1700.7	1737.8	1902.0	2117.9	2400.1	2728.5	2949.7
17.5°	1684.8	1678.2	1637.1	1637.1	1687.4	1717.9	1862.3	2075.5	2373.5	2759.0	3035.8
20°	1760.3	1749.7	1682.1	1676.9	1725.8	1757.6	1886.1	2078.2	2378.8	2815.9	3151.0
22.5°	1855.6	1843.7	1741.7	1744.4	1797.4	1829.2	1955.0	2125.8	2412.0	2886.1	3274.2
25°	1980.1	1966.9	1846.4	1841.1	1896.7	1924.5	2056.9	2210.6	2458.3	2973.5	3435.8
27.5°	2145.7	2117.9	1973.6	1965.6	2025.2	2060.9	2180.2	2324.6	2540.4	3094.1	3653.0
30°	2282.1	2251.7	2113.9	2092.7	2156.3	2184.1	2307.3	2478.2	2702.1	3304.7	3953.7
32.5°	2461.0	2415.9	2254.3	2198.7	2266.2	2302.0	2491.4	2764.3	2941.7	3527.2	4311.3
35°	2863.6	2835.8	2638.5	2443.7	2439.7	2484.8	2763.0	3053.0	3188.1	3874.2	4798.8
37.5°	3439.8	3419.9	3210.6	2949.7	2874.2	2853.0	3092.8	3370.9	3581.5	4351.1	5365.7
40°	4108.6	4062.3	3870.2	3649.0	3551.1	3488.8	3482.2	3843.7	4095.4	4998.8	5956.4
42.5°	4588.1	4503.3	4270.2	4254.4	4233.1	4168.3	3980.1	4535.1	4759.0	5695.5	6588.2
45°	5091.5	4963.0	4615.9	4556.4	4548.4	4544.5	4732.5	5353.7	5482.2	6450.4	7237.2
47.5°	5482.2	5380.2	5095.5	5068.9	5102.0	5192.2	5727.3	6222.6	6196.1	7123.3	7781.5
50°	6002.7	5925.9	5609.3	5659.7	5830.5	5977.6	6849.1	7169.6	6782.9	7653.0	8177.6
52.5°	6617.3	6475.6	6181.6	6317.9	6580.2	6825.3	8039.8	7998.7	7194.8	8051.7	8472.9
55°	7149.7	7049.1	6948.4	7090.1	7482.2	7788.2	9115.4	8620.0	7494.2	8372.3	8602.7
57.5°	8050.4	8026.6	7923.3	8067.6	8543.2	8861.1	10078.3	9102.1	7686.2	8539.2	8450.4
60°	9382.9	9344.5	9152.4	9336.6	9956.4	10455.8	10965.7	9535.2	7729.9	8474.3	8012.0
62.5°	10985.6	10854.4	10690.2	10961.7	11812.1	12032.0	11801.5	9792.2	7567.0	7957.7	6955.1
65°	12482.3	12347.2	12351.1	12923.3	13849.2	13998.9	12776.3	9753.8	7090.1	6663.6	5129.9
67.5°	13628.0	13605.5	13767.0	14883.7	16094.3	15990.9	13647.8	9179.0	5676.9	4319.3	2725.9
70°	13686.3	13730.0	14193.5	16078.4	17307.5	17143.2	13573.7	7461.1	3539.1	1986.8	1074.2
71°	12981.6	13275.7	13916.7	16041.2	17379.0	17165.8	12948.5	6249.1	2596.0	1385.4	774.9
72.5°	11062.4	11217.3	12602.8	15096.9	16813.4	16357.8	11363.1	4380.2	1662.3	847.7	445.1
75°	6092.8	6474.2	8439.9	11843.9	13447.9	13047.8	7405.4	2080.8	829.1	463.6	184.1
77.5°	2900.7	2826.6	4118.0	7043.8	9118.0	9096.8	3731.2	924.5	483.4	313.9	92.7
80°	829.1	932.5	1576.2	3348.4	5062.3	5117.9	1433.1	446.4	335.1	245.0	47.7
82.5°	250.3	255.6	578.8	1480.8	2517.9	2373.5	537.8	227.9	241.1	194.7	27.8
85°	43.7	54.3	170.9	521.9	960.3	728.5	135.1	108.6	158.9	128.5	15.9
87.5°	2.7	4.0	56.9	59.6	84.8	49.0	23.8	15.9	34.5	34.5	9.2
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°	2774.9	2774.9	2774.9	2774.9	2774.9	2774.9	2774.9	2774.9	2774.9	2774.9	2774.9
2.5°	2784.1	2792.1	2786.8	2774.9	2755.0	2731.2	2699.4	2672.8	2650.4	2638.5	2653.0
5°	2801.3	2812.0	2785.4	2725.9	2635.8	2537.8	2426.5	2340.5	2272.9	2251.7	2243.8
7.5°	2827.9	2834.5	2763.0	2630.5	2439.7	2208.0	2005.3	1834.5	1702.0	1662.3	1604.0
10°	2862.3	2858.3	2723.2	2476.9	2141.7	1793.4	1479.5	1246.4	1070.2	1006.6	1001.3
12.5°	2915.3	2894.0	2672.8	2267.6	1786.8	1331.2	943.0	737.7	626.5	589.4	581.5
15°	2981.5	2931.2	2593.4	2022.6	1368.2	859.6	581.5	519.2	504.6	502.0	499.3
17.5°	3059.7	2980.2	2488.8	1721.9	961.6	557.7	486.1	484.8	486.1	483.4	482.1
20°	3165.6	3031.9	2364.3	1365.6	635.8	470.2	463.6	463.6	464.9	463.6	463.6
22.5°	3278.2	3092.8	2210.6	1042.4	479.5	446.4	445.1	447.7	450.3	449.1	449.1
25°	3417.2	3172.2	2008.0	713.9	429.2	426.5	427.8	433.2	438.4	439.7	438.4
27.5°	3618.6	3270.3	1790.7	491.4	393.4	396.0	409.3	422.5	430.5	431.8	431.8
30°	3845.1	3378.9	1507.3	398.7	364.3	364.3	380.1	405.3	422.5	425.2	426.5
32.5°	4136.5	3504.7	1193.4	358.9	336.5	333.8	348.4	378.8	410.6	419.8	419.8
35°	4496.8	3653.0	887.5	333.8	316.6	309.9	317.9	343.0	384.1	410.6	413.3
37.5°	4919.3	3793.4	649.0	311.2	298.0	288.8	294.0	313.9	347.0	386.7	397.4
40°	5310.0	3917.9	484.8	292.7	279.5	272.9	276.8	286.1	313.9	351.0	357.6
42.5°	5736.5	4014.6	385.5	272.9	260.9	258.3	258.3	262.2	280.8	302.0	303.3
45°	6161.7	4049.0	323.1	249.0	241.1	243.7	242.4	239.8	247.7	245.0	245.0
47.5°	6465.0	4008.0	267.6	226.5	226.5	230.4	223.9	214.5	210.6	194.7	196.1
50°	6673.0	3858.3	219.9	200.0	210.6	215.9	202.6	188.1	173.5	156.3	152.3
52.5°	6759.0	3592.1	180.2	165.5	186.7	193.4	177.5	160.3	137.7	123.2	119.2
55°	6703.4	3263.6	149.7	135.1	157.6	165.5	149.7	129.8	104.6	88.7	86.1
57.5°	6458.3	2871.6	127.2	107.3	125.8	131.2	120.5	99.4	74.2	58.3	58.3
60°	6034.5	2466.3	103.3	84.8	94.0	102.0	91.4	71.5	50.3	35.8	33.1
62.5°	5174.9	2002.7	83.5	66.2	66.2	72.8	63.6	51.7	31.8	18.6	17.2
65°	3736.5	1373.5	66.2	49.0	47.7	47.7	39.7	34.5	18.6	7.9	5.3
67.5°	2030.5	774.9	53.0	37.1	33.1	31.8	25.1	19.9	7.9	1.3	0.0
70°	798.7	298.0	41.0	25.1	21.2	19.9	13.2	9.2	5.3	0.0	0.0
71°	541.8	205.3	35.8	21.2	17.2	14.6	10.6	7.9	4.0	0.0	0.0
72.5°	309.9	127.2	27.8	15.9	13.2	10.6	7.9	5.3	4.0	0.0	0.0
75°	135.1	64.9	17.2	11.9	9.2	6.7	5.3	4.0	1.3	0.0	0.0
77.5°	68.9	35.8	11.9	9.2	5.3	4.0	2.7	1.3	0.0	0.0	0.0
80°	38.4	18.6	7.9	5.3	4.0	2.7	1.3	1.3	0.0	0.0	0.0
82.5°	21.2	10.6	4.0	2.7	1.3	0.0	0.0	0.0	0.0	0.0	0.0
85°	13.2	6.7	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	6.7	2.7	0.0	0.0	0.0	0.0	1.3	1.3	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)