

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: P299717

Luminaire Tested: **GLNA-AF-04-LED-E1-SL2-7050-600-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299717  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24287)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-04-LED-E1-SL2-7050-600-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 5000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II  
w/Spill Control WITH HOUSESIDE SHEILD OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11901 lumens  
Efficiency: N/A  
Efficacy: 92.3 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 129  
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: 25 FT

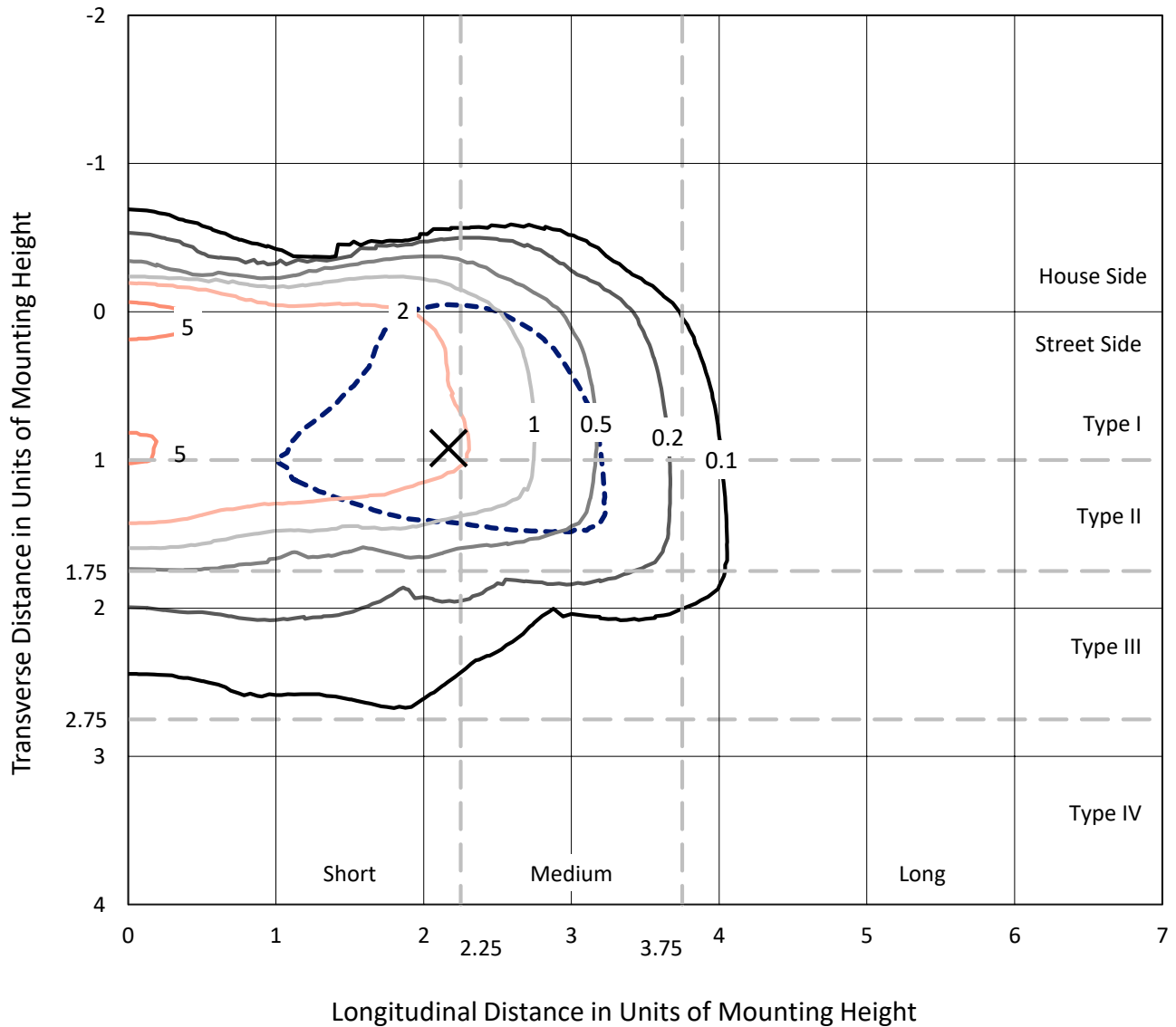


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

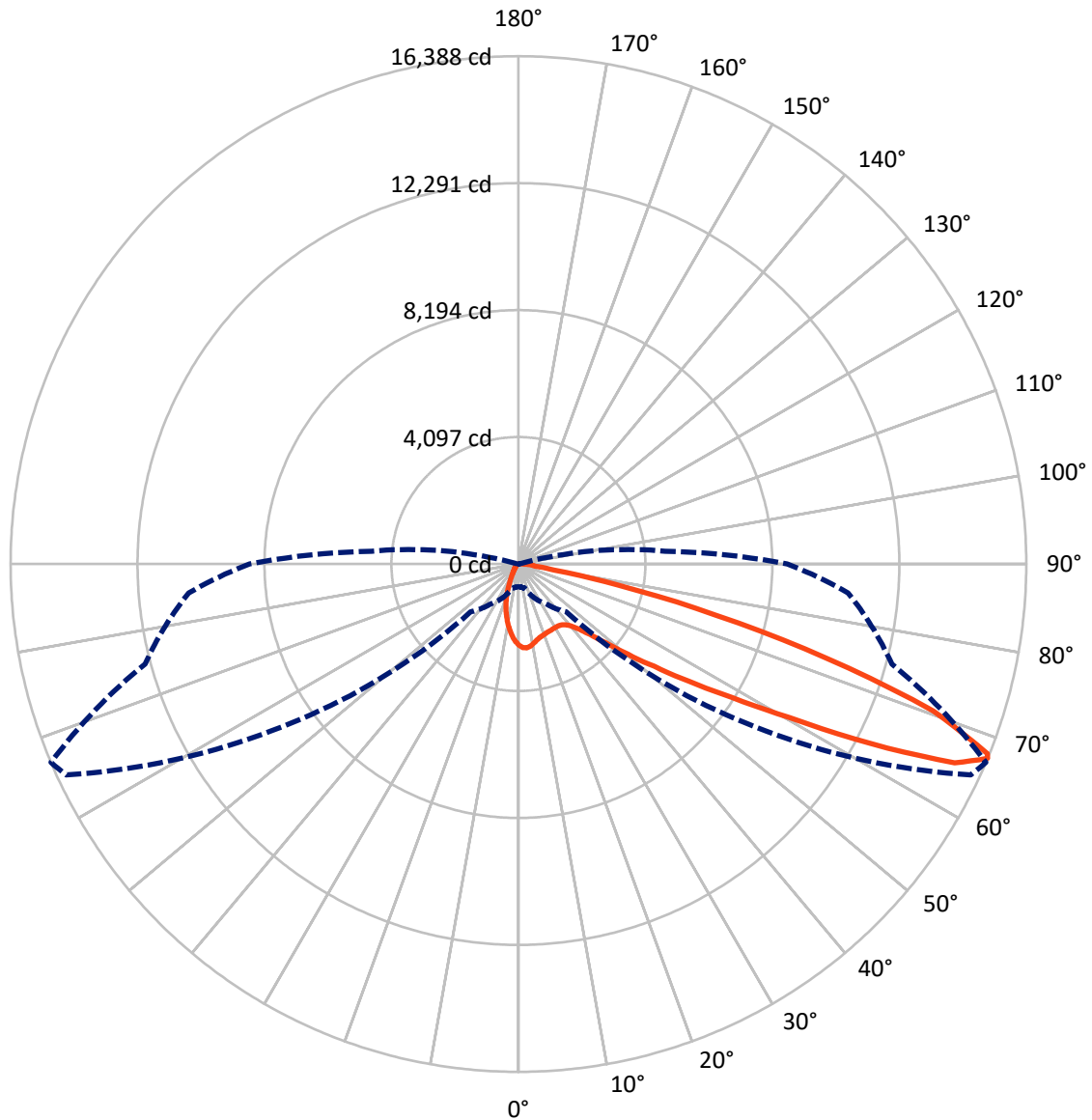


Based on 20 foot mounting height. Maximum calculated value = 6.6 fc  
 Type II - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral      - - - Horizontal Cone Through 67-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1235.7	0.0	1235.7
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	10665.3	0.0	10665.3
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	11901.0	0.0	11901.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	213.6	1.8
10°-20°	454.5	3.8
20°-30°	660.9	5.6
30°-40°	1031.0	8.7
40°-50°	1826.3	15.3
50°-60°	2889.9	24.3
60°-70°	3310.0	27.8
70°-80°	1373.0	11.5
80°-90°	141.8	1.2
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°	11901.0	100.0
0°-180°	11901.0	100.0



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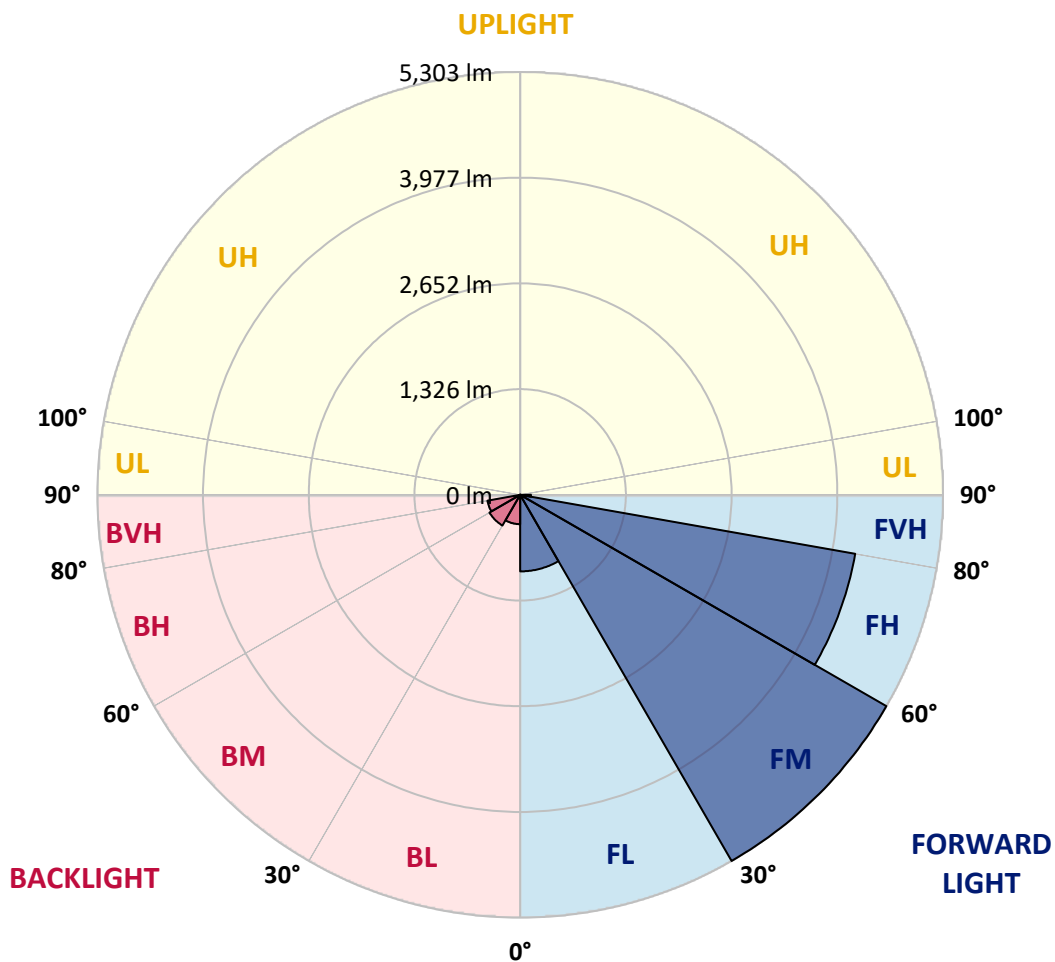
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	960.2	8.1			
FM (30°-60°)	5303.1	44.6			
FH (60°-80°)	4266.5	35.9			G2/5000
FVH (80°-90°)	135.4	1.1			G2/225
BL (0°-30°)	368.7	3.1	B1/500		
BM (30°-60°)	444.1	3.7	B1/1000		
BH (60°-80°)	416.5	3.5	B1/500		G1/500
BVH (80°-90°)	6.4	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	2624.6	2624.6	2624.6	2624.6	2624.6	2624.6	2624.6	2624.6	2624.6	2624.6	2624.6
2.5°	2713.5	2719.0	2718.3	2722.5	2732.2	2732.9	2723.2	2704.4	2700.3	2676.0	2633.6
5°	2502.4	2518.4	2528.1	2567.7	2612.1	2665.6	2705.8	2720.4	2718.3	2701.0	2637.1
7.5°	2261.6	2277.5	2288.6	2335.2	2394.2	2485.8	2590.6	2676.7	2684.3	2703.1	2634.3
10°	2101.2	2104.0	2119.3	2163.7	2225.5	2319.2	2444.1	2594.8	2617.7	2686.4	2627.4
12.5°	1969.3	1971.4	1991.5	2039.4	2105.4	2199.8	2331.0	2505.2	2540.6	2665.6	2626.0
15°	1875.6	1883.3	1901.3	1951.3	2021.4	2115.1	2249.8	2439.3	2481.6	2657.9	2638.5
17.5°	1844.4	1852.7	1858.3	1894.4	1958.2	2049.9	2188.0	2396.2	2444.1	2662.1	2662.8
20°	1877.0	1883.3	1870.8	1879.8	1919.4	2001.3	2135.9	2359.4	2416.4	2667.0	2694.0
22.5°	1998.5	2001.3	1967.2	1927.7	1920.7	1965.9	2095.0	2330.3	2391.4	2680.1	2730.8
25°	2206.7	2201.9	2146.3	2061.0	1980.4	1959.6	2070.7	2312.2	2378.9	2694.0	2769.0
27.5°	2458.0	2465.0	2388.6	2264.3	2110.9	2001.3	2067.2	2304.6	2373.3	2703.8	2802.3
30°	2763.4	2773.2	2685.7	2529.5	2309.5	2104.0	2099.1	2303.2	2369.9	2697.5	2805.1
32.5°	3075.1	3086.9	3018.2	2857.2	2574.6	2276.1	2171.3	2318.5	2376.8	2676.0	2789.1
35°	3401.4	3418.0	3372.2	3234.1	2934.2	2524.7	2298.4	2365.0	2409.4	2673.9	2773.2
37.5°	3851.9	3867.2	3781.1	3634.6	3369.5	2857.9	2502.4	2452.5	2486.5	2707.2	2777.3
40°	4524.5	4522.4	4300.3	4076.1	3847.7	3281.3	2789.1	2610.7	2628.1	2807.9	2828.7
42.5°	5257.6	5254.1	4925.8	4584.9	4378.8	3802.6	3166.1	2884.2	2872.4	2993.2	2962.0
45°	5822.6	5821.9	5554.0	5170.1	5018.1	4401.0	3653.4	3264.6	3246.6	3294.5	3207.7
47.5°	6063.5	6067.6	5933.0	5663.0	5726.8	5210.4	4267.7	3815.8	3788.7	3769.3	3637.4
50°	5876.1	5884.4	5895.5	5842.7	6246.7	6298.1	5091.7	4592.6	4579.4	4492.6	4286.4
52.5°	5263.8	5306.2	5436.7	5603.9	6427.2	7342.1	6383.5	5557.4	5486.6	5394.3	5167.3
55°	4232.3	4278.8	4526.6	4932.7	6158.6	8028.0	8193.9	6801.4	6683.4	6407.8	6080.1
57.5°	2800.9	2873.1	3232.7	3749.2	5378.3	8138.3	10000.1	8527.7	8116.8	7362.3	6993.0
60°	1543.1	1612.5	2002.7	2470.5	3884.5	7592.7	11214.8	10775.4	10049.3	8429.2	8101.5
62.5°	950.3	987.8	1275.9	1711.1	2329.6	5992.7	11466.1	13600.0	12759.3	9802.9	9440.6
65°	756.6	772.6	913.5	1398.7	1670.1	3564.5	10654.7	15753.3	15472.8	11466.1	10639.4
67°	734.4	740.7	807.3	1200.9	1574.4	2185.2	8926.2	16103.8	16388.4	12472.7	10676.9
67.5°	739.3	746.2	809.4	1146.1	1571.6	2008.2	8330.6	15965.7	16325.2	12552.5	10511.0
70°	712.9	734.4	926.7	1145.4	1494.5	1668.8	4988.9	13833.2	14207.4	11663.3	8918.6
72.5°	252.7	254.1	400.5	926.7	1625.0	1686.8	2505.2	10141.0	10417.9	8922.0	6430.0
75°	149.9	127.7	133.3	263.8	1552.8	1638.2	1445.2	6480.0	6583.4	5112.5	3256.3
77.5°	103.4	90.2	93.0	116.6	591.4	1615.3	1148.1	3379.2	3268.8	1793.0	693.5
80°	59.0	52.1	55.5	102.0	215.2	1507.0	1082.9	1370.3	1168.3	304.0	191.6
82.5°	31.2	26.4	31.9	84.0	149.9	939.2	1085.0	662.2	524.8	102.7	130.5
85°	11.1	9.0	15.3	57.6	100.0	288.1	1005.8	556.7	437.3	50.0	99.3
87.5°	2.1	2.1	6.2	23.6	40.3	88.2	594.9	330.4	221.4	29.8	68.0
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°	2624.6	2624.6	2624.6	2624.6	2624.6	2624.6	2624.6	2624.6	2624.6	2624.6	2624.6
2.5°	2616.3	2586.4	2546.2	2496.9	2438.6	2387.2	2349.0	2309.5	2301.1	2287.3	2285.2
5°	2598.9	2547.6	2447.6	2333.1	2210.9	2100.5	2011.0	1931.2	1895.7	1865.2	1861.7
7.5°	2573.2	2496.2	2326.1	2141.5	1950.6	1777.0	1629.9	1525.8	1430.0	1384.2	1377.2
10°	2543.4	2433.0	2189.4	1933.2	1669.5	1424.4	1205.8	1022.5	911.4	845.5	837.2
12.5°	2515.6	2371.2	2049.9	1717.4	1366.8	1039.2	758.0	583.1	466.5	419.3	413.7
15°	2502.4	2321.3	1919.4	1496.6	1050.3	661.5	414.4	320.7	282.5	271.4	270.7
17.5°	2501.1	2278.9	1791.6	1268.2	735.8	384.6	270.0	246.4	238.8	236.0	236.0
20°	2500.4	2238.7	1663.9	1031.5	467.2	256.1	224.9	219.4	213.8	210.3	210.3
22.5°	2508.0	2202.6	1530.6	790.0	294.3	207.6	197.8	192.3	185.3	180.5	179.8
25°	2515.6	2174.8	1394.6	562.3	213.1	180.5	170.8	163.1	153.4	147.2	146.5
27.5°	2517.0	2140.1	1248.8	376.2	178.4	157.6	145.1	133.3	122.2	115.9	115.2
30°	2496.2	2081.8	1087.1	254.1	157.6	136.7	120.1	107.6	97.2	92.3	92.3
32.5°	2455.2	2009.6	909.3	191.6	140.2	117.3	99.3	87.5	80.5	78.4	77.7
35°	2418.5	1931.8	726.8	162.4	125.6	99.3	81.2	73.6	69.4	68.7	68.0
37.5°	2396.9	1869.4	555.3	147.2	111.8	83.3	68.7	63.2	61.1	59.7	60.4
40°	2413.6	1817.3	410.2	134.7	97.9	69.4	58.3	55.5	53.5	52.8	52.8
42.5°	2486.5	1808.3	304.7	123.6	84.7	57.6	50.7	48.6	47.2	46.5	47.2
45°	2678.1	1863.8	236.7	113.1	71.5	48.6	43.0	42.3	41.6	41.6	41.6
47.5°	2966.1	1978.4	197.1	101.3	59.7	41.6	37.5	36.8	36.1	36.8	36.8
50°	3454.1	2188.0	176.3	89.5	49.3	35.4	31.9	31.9	31.9	31.9	32.6
52.5°	4196.2	2600.3	162.4	77.7	40.3	29.8	27.1	27.1	27.8	27.8	28.5
55°	5022.9	3147.3	149.9	65.9	34.0	25.0	22.2	22.9	23.6	24.3	24.3
57.5°	5919.8	3753.3	139.5	54.1	29.2	20.1	18.7	19.4	20.1	21.5	21.5
60°	7002.0	4409.3	124.3	42.3	24.3	16.0	14.6	16.0	18.0	19.4	20.1
62.5°	8190.4	5043.8	104.8	33.3	20.1	12.5	11.8	14.6	17.4	18.7	19.4
65°	9002.6	5243.0	80.5	27.1	15.3	9.0	9.7	13.2	16.7	18.7	18.7
67°	8673.5	4753.6	65.9	22.9	12.5	6.9	9.0	13.2	16.7	18.0	18.7
67.5°	8445.1	4562.0	63.2	22.2	11.8	6.9	9.0	13.2	16.7	18.7	18.7
70°	6871.5	3427.1	52.8	16.7	9.7	6.2	7.6	12.5	16.0	18.0	18.0
72.5°	4774.4	2113.0	47.2	11.8	8.3	5.6	6.9	11.8	15.3	17.4	18.0
75°	2269.9	765.0	40.3	9.0	7.6	4.9	6.2	11.8	15.3	17.4	17.4
77.5°	463.0	177.7	32.6	7.6	6.2	4.9	5.6	11.1	14.6	16.7	16.7
80°	152.0	68.7	24.3	6.9	6.2	4.9	5.6	10.4	14.6	16.0	16.7
82.5°	109.7	34.7	16.0	6.9	6.2	4.9	4.9	10.4	13.9	16.0	16.0
85°	84.0	24.3	10.4	6.9	6.2	4.9	4.9	9.7	13.2	15.3	15.3
87.5°	55.5	9.7	8.3	6.9	6.2	4.9	4.9	9.7	12.5	14.6	15.3
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)