

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: P301885

Luminaire Tested: **GLNA-AF-05-LED-E1-SL4-7030-800-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301885  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-05-LED-E1-SL4-7030-800-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 3000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
w/Spill Control WITH HOUSESIDE SHEILD OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 17143.9 lumens  
Efficiency: N/A  
Efficacy: 81.6 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G3  
  
Input Watts (W): 210  
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

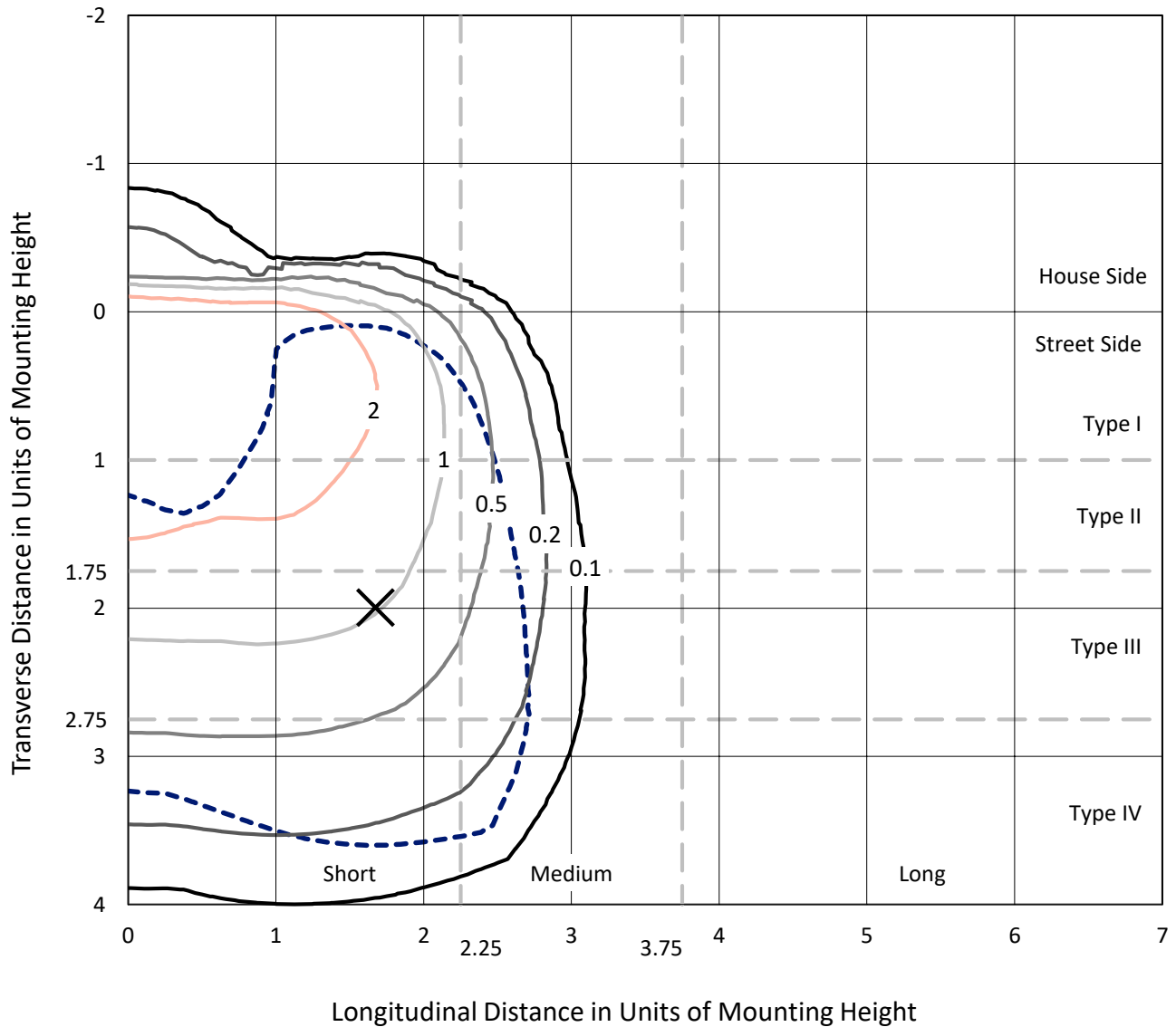


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

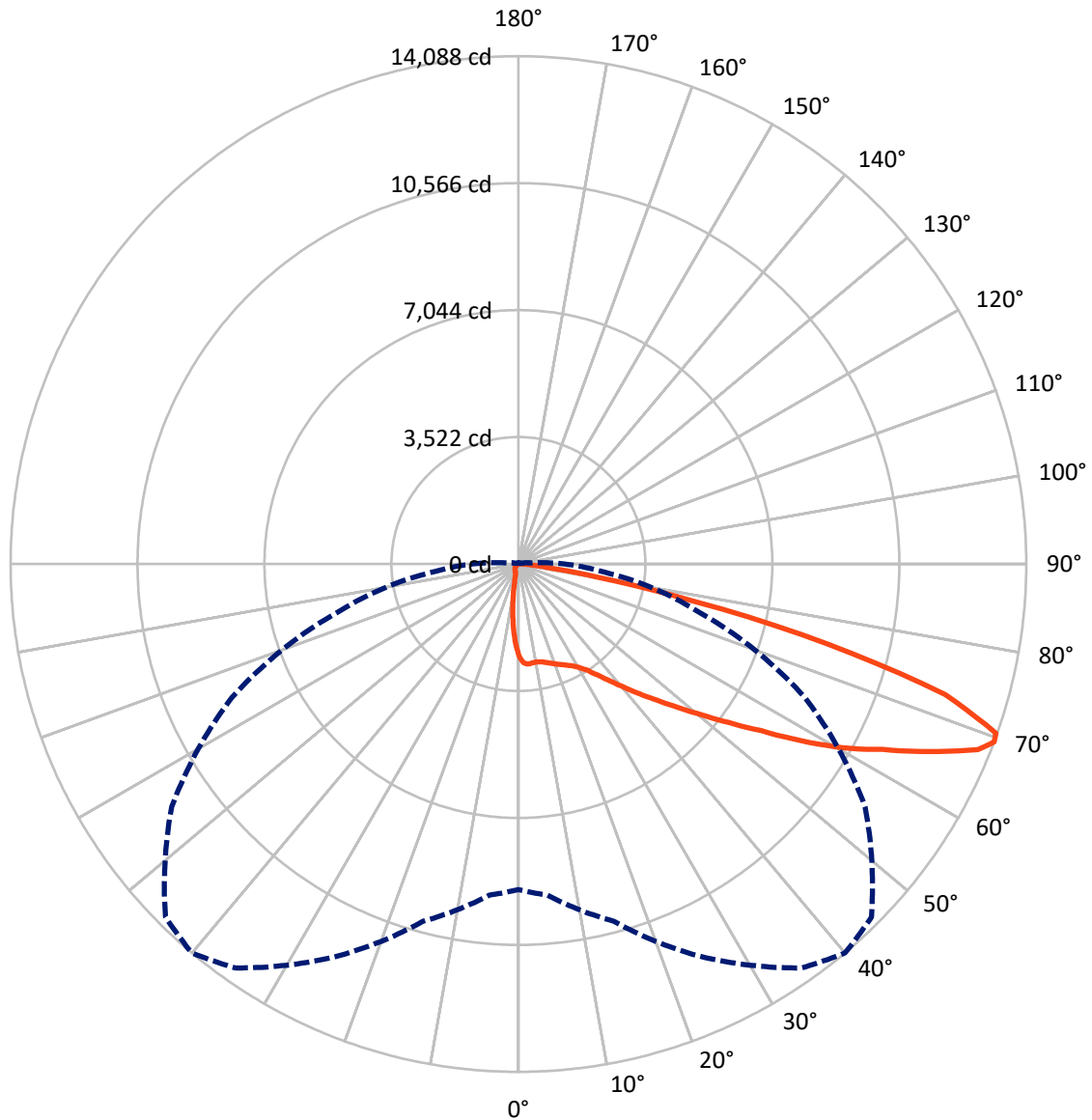


Based on 25 foot mounting height. Maximum calculated value = 4.5 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1003.0	0.0	1003.0
	% Fixture	5.9	0.0	5.9
<b>Street Side</b>	Lumens	16140.8	0.0	16140.8
	% Fixture	94.1	0.0	94.1
<b>Total</b>	Lumens	17143.9	0.0	17143.9
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	207.7	1.2
10°-20°	510.7	3.0
20°-30°	860.2	5.0
30°-40°	1408.2	8.2
40°-50°	2438.3	14.2
50°-60°	3840.5	22.4
60°-70°	5015.6	29.3
70°-80°	2583.2	15.1
80°-90°	279.4	1.6
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°	17143.9	100.0
0°-180°	17143.9	100.0

**Coefficient of Utilization**



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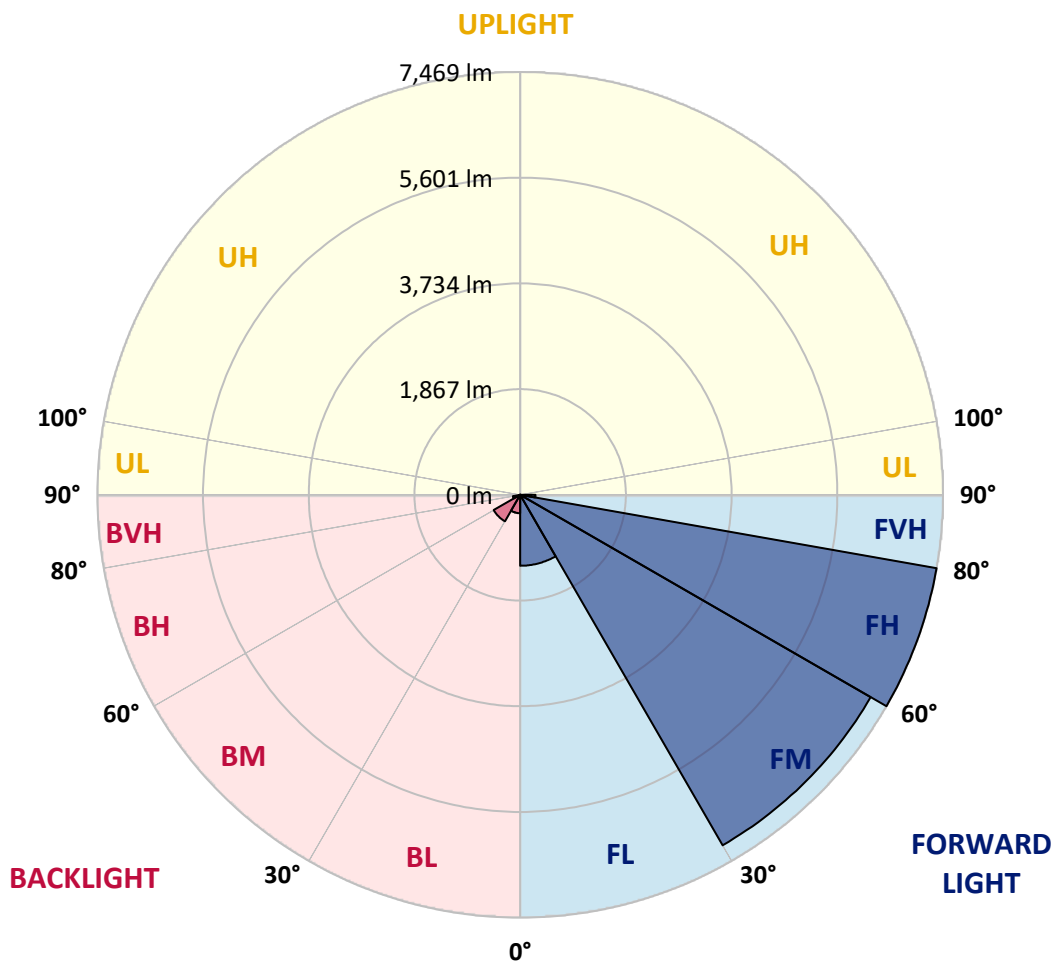
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1253.7	7.3			
FM	(30°-60°)	7147.9	41.7			
FH	(60°-80°)	7468.6	43.6			G3/7500
FVH	(80°-90°)	270.7	1.6			G3/500
BL	(0°-30°)	324.9	1.9	B1/500		
BM	(30°-60°)	539.1	3.1	B1/1000		
BH	(60°-80°)	130.2	0.8	B1/500		G1/500
BVH	(80°-90°)	8.8	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-G3**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	2561.4	2561.4	2561.4	2561.4	2561.4	2561.4	2561.4	2561.4	2561.4	2561.4	2561.4
2.5°	2812.4	2797.1	2787.9	2775.7	2760.4	2747.1	2742.0	2704.2	2668.5	2619.5	2563.4
5°	2864.5	2859.4	2843.0	2826.7	2808.3	2787.9	2776.7	2731.8	2680.8	2609.3	2511.4
7.5°	2869.6	2863.4	2843.0	2820.6	2795.1	2770.6	2751.2	2706.3	2659.3	2586.9	2467.5
10°	2861.4	2854.3	2838.9	2814.5	2782.8	2759.4	2740.0	2697.1	2657.3	2592.0	2459.3
12.5°	2852.2	2845.1	2837.9	2825.7	2798.1	2781.8	2765.5	2724.7	2688.9	2633.8	2488.9
15°	2861.4	2857.3	2865.5	2860.4	2845.1	2830.8	2814.5	2777.7	2745.1	2699.1	2543.0
17.5°	2900.2	2900.2	2925.7	2928.7	2914.5	2894.1	2870.6	2833.8	2806.3	2767.5	2607.3
20°	2991.0	2987.9	3020.6	3026.7	2992.0	2960.4	2925.7	2880.8	2859.4	2834.9	2670.6
22.5°	3147.1	3132.8	3152.2	3146.1	3077.7	3028.8	2985.9	2930.8	2919.6	2908.3	2741.0
25°	3350.2	3342.0	3355.3	3295.1	3174.7	3108.4	3057.3	2995.1	2995.1	3006.3	2820.6
27.5°	3645.1	3614.5	3569.6	3463.5	3282.9	3198.2	3143.0	3076.7	3094.1	3135.9	2925.7
30°	3947.2	3913.5	3810.4	3647.2	3414.5	3325.7	3261.4	3192.0	3232.8	3309.4	3066.5
32.5°	4245.2	4207.4	4061.5	3855.3	3603.3	3514.5	3452.3	3375.7	3444.1	3572.7	3272.6
35°	4533.9	4500.3	4331.9	4089.0	3854.3	3780.8	3723.7	3657.4	3745.1	3924.7	3563.5
37.5°	4858.5	4821.7	4616.6	4353.3	4159.4	4106.4	4064.5	3998.2	4151.3	4414.6	3968.6
40°	5257.5	5195.2	4918.7	4656.4	4512.5	4487.0	4458.4	4449.2	4687.0	5051.3	4508.4
42.5°	5714.6	5612.6	5235.0	4975.8	4900.3	4918.7	4911.5	4952.3	5357.5	5843.2	5165.6
45°	6171.8	6040.2	5587.1	5316.6	5326.9	5391.1	5430.9	5594.2	6197.3	6751.4	5872.8
47.5°	6559.6	6430.0	5924.8	5685.0	5807.5	5934.0	6042.2	6351.4	7060.6	7645.4	6422.8
50°	6891.2	6768.8	6283.0	6090.2	6365.7	6569.8	6745.3	7203.5	7989.3	8326.0	6808.6
52.5°	7162.7	7081.0	6654.5	6554.5	7003.5	7302.5	7559.6	8108.7	8811.8	8879.1	7108.6
55°	7427.0	7368.8	7053.5	7106.6	7752.5	8159.7	8485.2	9068.9	9520.0	9340.4	7396.4
57.5°	7731.1	7678.0	7508.6	7806.6	8737.3	9249.5	9604.7	9920.0	10143.5	9811.8	7667.8
60°	8041.3	8010.7	8014.8	8584.2	9867.9	10359.8	10555.7	10637.4	10755.8	10255.7	7683.1
62.5°	8337.2	8395.4	8593.4	9449.6	10950.7	11328.2	11427.2	11507.8	11369.1	10326.1	7098.4
65°	8838.3	8933.2	9405.7	10607.8	12141.6	12545.7	12647.7	12371.2	11466.0	9415.9	5773.8
67.5°	9083.2	9256.7	10099.6	11687.4	13296.7	13745.7	13708.0	12427.3	10289.4	7180.0	3705.3
69°	9032.2	9216.9	10259.8	12018.1	13680.4	14087.6	13847.8	11740.5	8765.8	5201.3	2274.6
70°	8830.1	9016.9	10177.1	12005.8	13729.4	14051.9	13588.6	10892.5	7411.7	3803.3	1422.5
72.5°	7373.9	7535.2	9035.2	10851.7	12647.7	12385.4	11368.0	7546.4	3611.4	1035.8	320.4
75°	4539.1	4628.9	6483.0	8175.0	9552.6	8879.1	7573.9	3754.3	1076.6	292.9	177.6
77.5°	2398.1	2438.9	3549.2	4818.7	6055.5	5010.5	3881.9	1464.4	495.9	183.7	128.6
80°	1417.4	1448.0	1911.3	2203.2	2620.6	2188.9	1552.1	899.0	355.1	115.3	114.3
82.5°	811.3	830.7	1385.8	1224.6	1032.7	881.7	772.5	852.1	213.3	77.6	118.4
85°	298.0	302.1	779.6	931.7	614.3	365.3	383.7	706.2	57.1	49.0	92.9
87.5°	138.8	135.7	401.0	570.4	359.2	231.6	299.0	155.1	22.5	31.6	25.5
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°	2561.4	2561.4	2561.4	2561.4	2561.4	2561.4	2561.4	2561.4	2561.4	2561.4	2561.4
2.5°	2530.8	2493.0	2424.6	2354.2	2282.8	2227.7	2173.6	2130.7	2116.5	2089.9	2092.0
5°	2453.2	2383.8	2241.0	2096.0	1945.0	1820.5	1703.2	1608.3	1562.3	1515.4	1515.4
7.5°	2385.9	2284.8	2061.3	1825.6	1581.7	1376.6	1191.9	1053.1	976.6	915.4	914.3
10°	2360.3	2223.6	1911.3	1573.6	1233.7	954.1	734.7	593.9	521.5	474.5	472.5
12.5°	2371.6	2202.2	1796.0	1340.9	914.3	613.3	425.5	334.7	304.1	289.8	289.8
15°	2404.2	2196.1	1680.7	1113.3	646.0	383.7	282.7	258.2	256.1	256.1	256.1
17.5°	2444.0	2198.1	1562.3	891.9	439.8	274.5	243.9	240.8	242.9	242.9	242.9
20°	2484.8	2199.1	1434.8	686.8	310.2	238.8	229.6	228.6	230.6	230.6	231.6
22.5°	2534.8	2204.2	1307.2	513.3	256.1	225.5	218.4	218.4	219.4	219.4	218.4
25°	2592.0	2214.4	1174.6	380.6	233.7	216.3	210.2	209.2	210.2	209.2	208.2
27.5°	2663.4	2228.7	1026.6	298.0	223.5	207.2	202.1	202.1	201.0	200.0	199.0
30°	2753.2	2245.0	860.3	253.1	213.3	199.0	193.9	192.9	191.8	189.8	189.8
32.5°	2890.0	2280.8	696.0	229.6	202.1	187.8	183.7	183.7	181.6	179.6	178.6
35°	3100.2	2351.2	549.0	215.3	189.8	175.5	170.4	170.4	168.4	167.4	166.3
37.5°	3391.0	2458.3	426.6	202.1	177.6	162.3	157.2	156.1	154.1	152.1	151.0
40°	3777.8	2591.0	335.7	189.8	165.3	149.0	144.9	142.9	138.8	135.7	135.7
42.5°	4263.5	2742.0	272.5	176.5	151.0	136.7	133.7	130.6	123.5	120.4	119.4
45°	4771.7	2877.7	230.6	161.2	136.7	124.5	122.5	117.4	108.2	105.1	105.1
47.5°	5138.1	2909.4	203.1	146.9	123.5	111.2	110.2	101.0	92.9	90.8	89.8
50°	5366.7	2847.1	180.6	132.7	111.2	99.0	95.9	84.7	79.6	77.6	76.5
52.5°	5520.7	2735.9	162.3	120.4	100.0	87.8	80.6	72.5	68.4	66.3	66.3
55°	5644.2	2578.7	143.9	109.2	90.8	78.6	68.4	62.2	58.2	56.1	56.1
57.5°	5678.9	2365.4	125.5	100.0	81.6	69.4	58.2	54.1	49.0	48.0	48.0
60°	5426.9	1980.7	111.2	88.8	73.5	60.2	51.0	45.9	40.8	39.8	38.8
62.5°	4762.5	1532.7	98.0	78.6	64.3	52.0	43.9	37.8	33.7	33.7	33.7
65°	3632.9	1027.6	85.7	68.4	56.1	43.9	37.8	30.6	28.6	28.6	29.6
67.5°	2174.6	559.2	73.5	58.2	48.0	36.7	31.6	26.5	25.5	26.5	26.5
69°	1274.6	328.6	66.3	52.0	41.8	32.7	27.6	23.5	25.5	26.5	26.5
70°	786.8	221.4	61.2	46.9	37.8	29.6	25.5	22.5	24.5	25.5	25.5
72.5°	219.4	114.3	49.0	36.7	30.6	24.5	20.4	20.4	23.5	24.5	24.5
75°	142.9	84.7	37.8	27.6	23.5	19.4	17.3	19.4	22.5	23.5	23.5
77.5°	118.4	69.4	30.6	22.5	19.4	18.4	16.3	17.3	20.4	21.4	21.4
80°	108.2	49.0	24.5	20.4	17.3	16.3	15.3	14.3	18.4	19.4	19.4
82.5°	103.1	38.8	21.4	18.4	16.3	14.3	13.3	14.3	16.3	17.3	18.4
85°	64.3	25.5	19.4	17.3	14.3	13.3	13.3	13.3	15.3	16.3	16.3
87.5°	23.5	20.4	17.3	14.3	12.2	12.2	12.2	12.2	13.3	15.3	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)