

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: P301945

Luminaire Tested: **GLNA-AF-05-LED-E1-SL4-7030-600-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301945  
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-SL4-7030-600-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 3000K CCT 600mA 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: 13979.5 lumens  
Efficiency: N/A  
Efficacy: 86.3 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): 162  
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

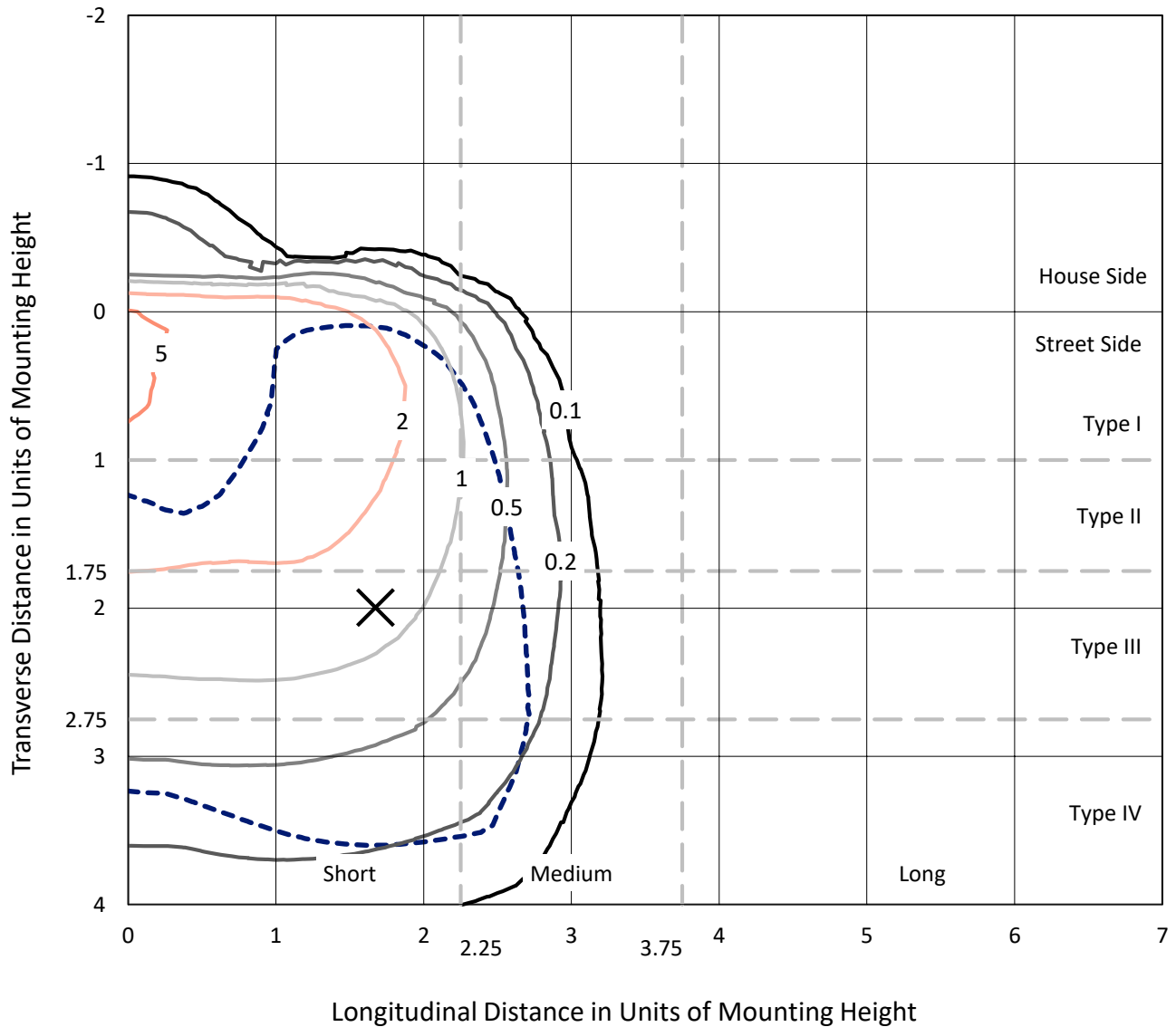


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

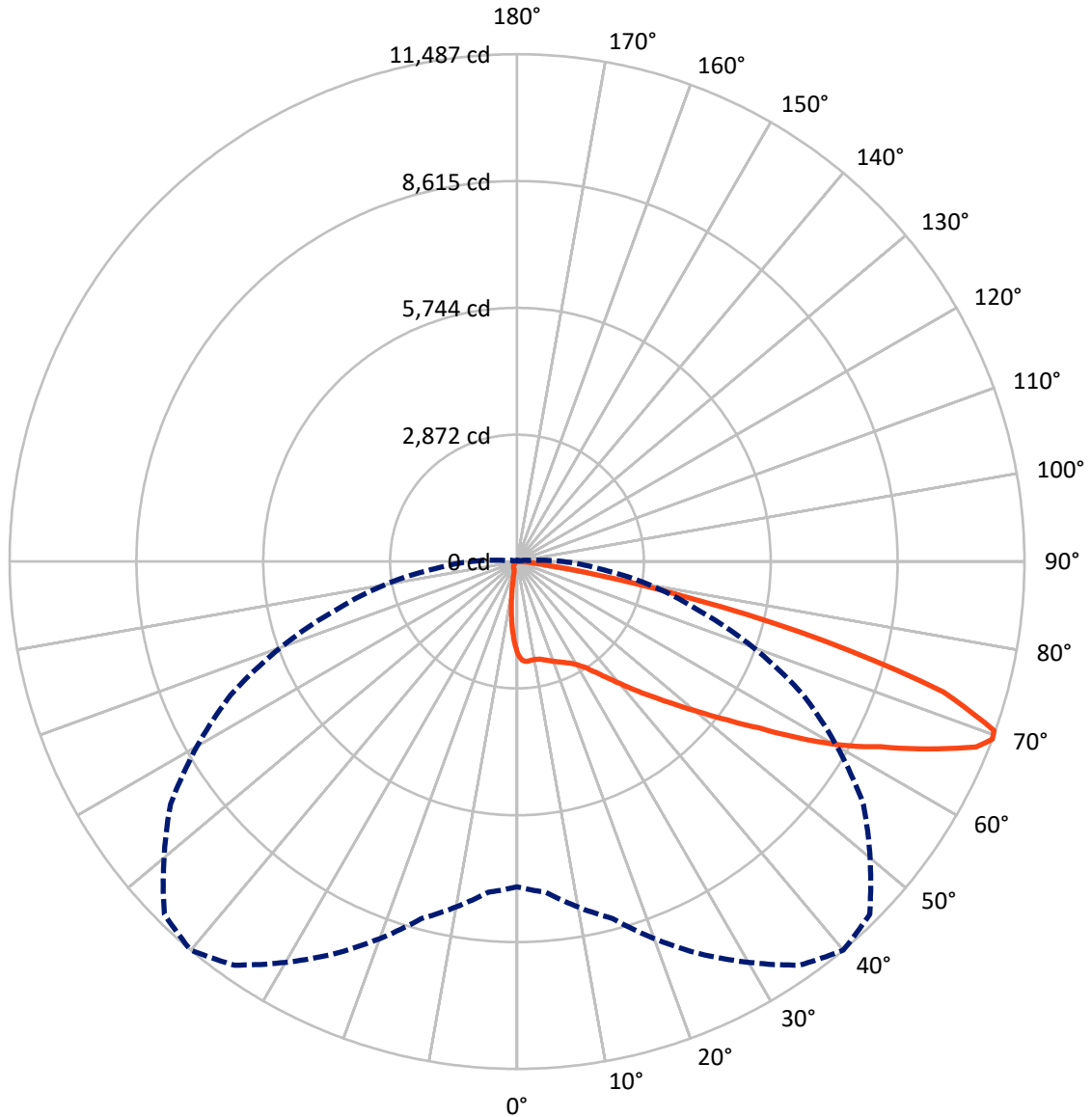


Based on 20 foot mounting height. Maximum calculated value = 5.7 fc  
 Type IV - Short - Semi-Cutoff

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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	817.9	0.0	817.9
	% Fixture	5.9	0.0	5.9
<b>Street Side</b>	Lumens	13161.6	0.0	13161.6
	% Fixture	94.1	0.0	94.1
<b>Total</b>	Lumens	13979.5	0.0	13979.5
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	169.3	1.2
10°-20°	416.4	3.0
20°-30°	701.4	5.0
30°-40°	1148.3	8.2
40°-50°	1988.2	14.2
50°-60°	3131.6	22.4
60°-70°	4089.8	29.3
70°-80°	2106.4	15.1
80°-90°	227.8	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°	13979.5	100.0
0°-180°	13979.5	100.0

**Coefficient of Utilization**



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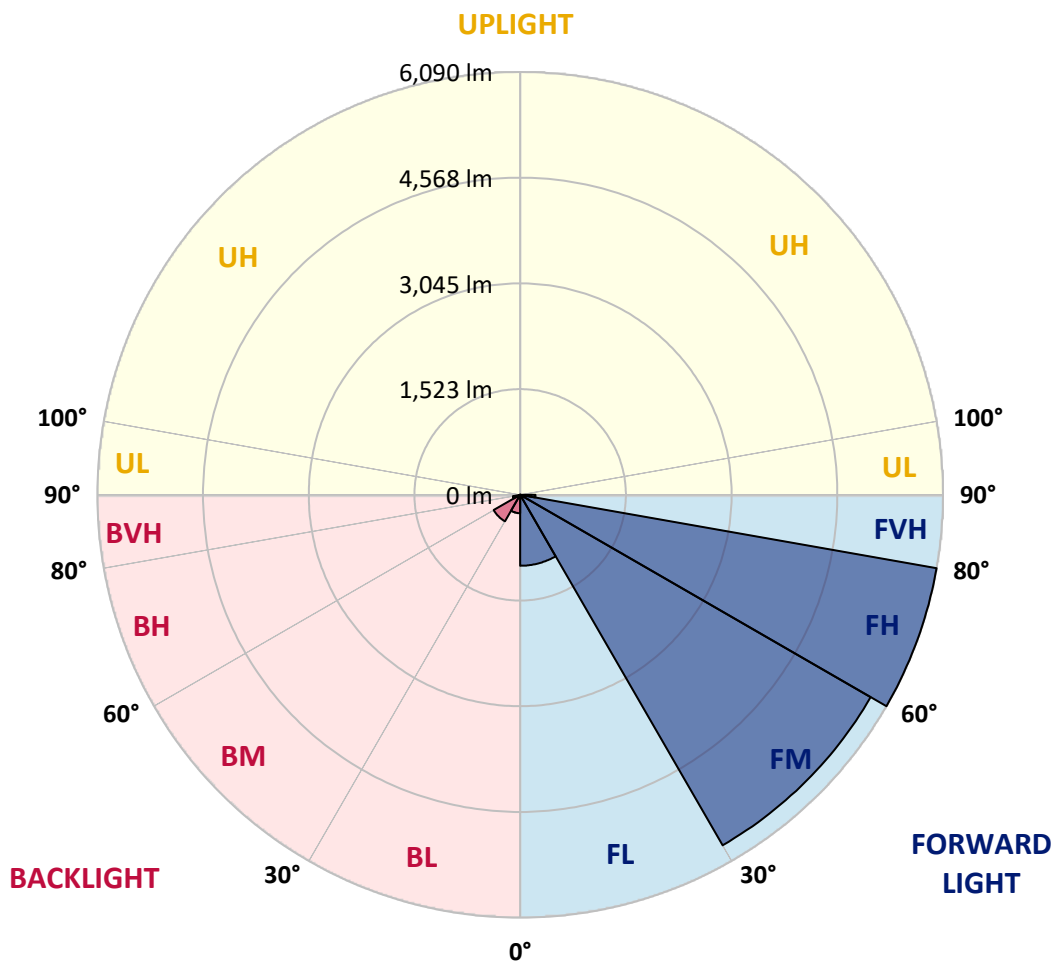
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1022.3	7.3			
FM	(30°-60°)	5828.6	41.7			
FH	(60°-80°)	6090.0	43.6			G3/7500
FVH	(80°-90°)	220.7	1.6			G2/225
BL	(0°-30°)	264.9	1.9	B1/500		
BM	(30°-60°)	439.6	3.1	B1/1000		
BH	(60°-80°)	106.2	0.8	B0/110		G0/110
BVH	(80°-90°)	7.1	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°	2088.6	2088.6	2088.6	2088.6	2088.6	2088.6	2088.6	2088.6	2088.6	2088.6	2088.6
2.5°	2293.3	2280.8	2273.3	2263.3	2250.9	2240.1	2235.9	2205.1	2176.0	2136.0	2090.3
5°	2335.7	2331.6	2318.3	2305.0	2290.0	2273.3	2264.2	2227.6	2186.0	2127.7	2047.8
7.5°	2339.9	2334.9	2318.3	2300.0	2279.2	2259.2	2243.4	2206.8	2168.5	2109.4	2012.1
10°	2333.2	2327.4	2314.9	2295.0	2269.2	2250.0	2234.2	2199.3	2166.8	2113.6	2005.4
12.5°	2325.8	2319.9	2314.1	2304.1	2281.7	2268.3	2255.0	2221.7	2192.6	2147.7	2029.5
15°	2333.2	2329.9	2336.6	2332.4	2319.9	2308.3	2295.0	2265.0	2238.4	2200.9	2073.6
17.5°	2364.9	2364.9	2385.7	2388.2	2376.5	2359.9	2340.7	2310.8	2288.3	2256.7	2126.1
20°	2438.9	2436.4	2463.1	2468.0	2439.8	2414.0	2385.7	2349.1	2331.6	2311.6	2177.6
22.5°	2566.2	2554.6	2570.4	2565.4	2509.7	2469.7	2434.8	2389.8	2380.7	2371.5	2235.1
25°	2731.8	2725.2	2736.0	2686.9	2588.7	2534.6	2493.0	2442.3	2442.3	2451.4	2300.0
27.5°	2972.3	2947.3	2910.7	2824.2	2676.9	2607.8	2562.9	2508.8	2523.0	2557.1	2385.7
30°	3218.6	3191.2	3107.1	2974.0	2784.3	2711.9	2659.4	2602.9	2636.1	2698.5	2500.5
32.5°	3461.6	3430.8	3311.8	3143.7	2938.2	2865.8	2815.0	2752.6	2808.4	2913.2	2668.6
35°	3697.1	3669.6	3532.3	3334.3	3142.9	3083.0	3036.4	2982.3	3053.9	3200.3	2905.7
37.5°	3961.7	3931.7	3764.5	3549.8	3391.7	3348.4	3314.3	3260.2	3385.0	3599.7	3236.1
40°	4287.0	4236.3	4010.8	3796.9	3679.6	3658.8	3635.5	3628.0	3821.9	4119.0	3676.3
42.5°	4659.8	4576.6	4268.7	4057.4	3995.8	4010.8	4005.0	4038.2	4368.6	4764.7	4212.2
45°	5032.6	4925.3	4555.8	4335.3	4343.6	4396.1	4428.5	4561.6	5053.4	5505.3	4788.8
47.5°	5348.8	5243.1	4831.3	4635.7	4735.6	4838.7	4926.9	5179.1	5757.4	6234.2	5237.3
50°	5619.3	5519.4	5123.3	4966.1	5190.7	5357.1	5500.3	5873.9	6514.6	6789.2	5551.9
52.5°	5840.6	5774.0	5426.2	5344.7	5710.8	5954.6	6164.3	6612.0	7185.3	7240.2	5796.5
55°	6056.1	6008.7	5751.6	5794.8	6321.6	6653.6	6919.0	7395.0	7762.8	7616.3	6031.2
57.5°	6304.1	6260.8	6122.7	6365.7	7124.6	7542.3	7831.9	8089.0	8271.2	8000.8	6252.5
60°	6557.1	6532.1	6535.4	6999.7	8046.5	8447.6	8607.4	8674.0	8770.5	8362.7	6265.0
62.5°	6798.4	6845.8	7007.2	7705.4	8929.4	9237.3	9318.0	9383.7	9270.6	8420.2	5788.2
65°	7206.9	7284.3	7669.6	8649.8	9900.5	10230.0	10313.2	10087.7	9349.6	7677.9	4708.1
67.5°	7406.6	7548.1	8235.4	9530.2	10842.4	11208.6	11177.8	10133.5	8390.2	5854.8	3021.4
69°	7365.0	7515.7	8366.1	9799.8	11155.3	11487.3	11291.8	9573.5	7147.9	4241.3	1854.8
70°	7200.3	7352.6	8298.7	9789.8	11195.3	11458.2	11080.4	8882.0	6043.6	3101.3	1160.0
72.5°	6012.9	6144.3	7367.5	8848.7	10313.2	10099.4	9269.7	6153.5	2944.9	844.6	261.3
75°	3701.2	3774.5	5286.4	6666.1	7789.4	7240.2	6175.9	3061.3	877.9	238.8	144.8
77.5°	1955.5	1988.8	2894.1	3929.2	4937.8	4085.7	3165.4	1194.1	404.4	149.8	104.8
80°	1155.8	1180.8	1558.5	1796.5	2136.9	1784.9	1265.6	733.1	289.6	94.0	93.2
82.5°	661.5	677.3	1130.0	998.5	842.1	718.9	629.9	694.8	173.9	63.2	96.5
85°	243.0	246.3	635.7	759.7	500.9	297.9	312.9	575.8	46.6	39.9	75.7
87.5°	113.2	110.7	327.0	465.2	292.9	188.9	243.8	126.5	18.3	25.8	20.8
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°	2088.6	2088.6	2088.6	2088.6	2088.6	2088.6	2088.6	2088.6	2088.6	2088.6	2088.6
2.5°	2063.6	2032.9	1977.1	1919.7	1861.4	1816.5	1772.4	1737.5	1725.8	1704.2	1705.8
5°	2000.4	1943.8	1827.3	1709.2	1586.0	1484.5	1388.8	1311.4	1274.0	1235.7	1235.7
7.5°	1945.5	1863.1	1680.9	1488.7	1289.8	1122.5	971.9	858.7	796.3	746.4	745.6
10°	1924.7	1813.2	1558.5	1283.1	1006.0	778.0	599.1	484.3	425.2	386.9	385.3
12.5°	1933.8	1795.7	1464.5	1093.4	745.6	500.1	347.0	272.9	248.0	236.3	236.3
15°	1960.5	1790.7	1370.5	907.8	526.7	312.9	230.5	210.5	208.9	208.9	208.9
17.5°	1992.9	1792.4	1274.0	727.3	358.6	223.8	198.9	196.4	198.0	198.0	198.0
20°	2026.2	1793.2	1170.0	560.0	253.0	194.7	187.2	186.4	188.1	188.1	188.9
22.5°	2067.0	1797.4	1065.9	418.6	208.9	183.9	178.1	178.1	178.9	178.9	178.1
25°	2113.6	1805.7	957.8	310.4	190.6	176.4	171.4	170.6	171.4	170.6	169.8
27.5°	2171.8	1817.3	837.1	243.0	182.2	168.9	164.8	164.8	163.9	163.1	162.3
30°	2245.0	1830.7	701.5	206.4	173.9	162.3	158.1	157.3	156.4	154.8	154.8
32.5°	2356.5	1859.8	567.5	187.2	164.8	153.1	149.8	149.8	148.1	146.5	145.6
35°	2528.0	1917.2	447.7	175.6	154.8	143.1	139.0	139.0	137.3	136.5	135.6
37.5°	2765.1	2004.6	347.8	164.8	144.8	132.3	128.1	127.3	125.6	124.0	123.2
40°	3080.5	2112.7	273.8	154.8	134.8	121.5	118.2	116.5	113.2	110.7	110.7
42.5°	3476.6	2235.9	222.2	144.0	123.2	111.5	109.0	106.5	100.7	98.2	97.4
45°	3891.0	2346.6	188.1	131.5	111.5	101.5	99.9	95.7	88.2	85.7	85.7
47.5°	4189.7	2372.4	165.6	119.8	100.7	90.7	89.9	82.4	75.7	74.1	73.2
50°	4376.1	2321.6	147.3	108.2	90.7	80.7	78.2	69.1	64.9	63.2	62.4
52.5°	4501.7	2230.9	132.3	98.2	81.5	71.6	65.7	59.1	55.8	54.1	54.1
55°	4602.4	2102.8	117.3	89.0	74.1	64.1	55.8	50.8	47.4	45.8	45.8
57.5°	4630.7	1928.8	102.3	81.5	66.6	56.6	47.4	44.1	39.9	39.1	39.1
60°	4425.2	1615.1	90.7	72.4	59.9	49.1	41.6	37.4	33.3	32.5	31.6
62.5°	3883.5	1249.8	79.9	64.1	52.4	42.4	35.8	30.8	27.5	27.5	27.5
65°	2962.3	837.9	69.9	55.8	45.8	35.8	30.8	25.0	23.3	23.3	24.1
67.5°	1773.2	456.0	59.9	47.4	39.1	30.0	25.8	21.6	20.8	21.6	21.6
69°	1039.3	267.9	54.1	42.4	34.1	26.6	22.5	19.1	20.8	21.6	21.6
70°	641.6	180.6	49.9	38.3	30.8	24.1	20.8	18.3	20.0	20.8	20.8
72.5°	178.9	93.2	39.9	30.0	25.0	20.0	16.6	16.6	19.1	20.0	20.0
75°	116.5	69.1	30.8	22.5	19.1	15.8	14.1	15.8	18.3	19.1	19.1
77.5°	96.5	56.6	25.0	18.3	15.8	15.0	13.3	14.1	16.6	17.5	17.5
80°	88.2	39.9	20.0	16.6	14.1	13.3	12.5	11.6	15.0	15.8	15.8
82.5°	84.0	31.6	17.5	15.0	13.3	11.6	10.8	11.6	13.3	14.1	15.0
85°	52.4	20.8	15.8	14.1	11.6	10.8	10.8	10.8	12.5	13.3	13.3
87.5°	19.1	16.6	14.1	11.6	10.0	10.0	10.0	10.0	10.8	12.5	12.5
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)