

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: P299719

Luminaire Tested: **GLNA-AF-05-LED-E1-SL2-7027-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299719
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-05-LED-E1-SL2-7027-600-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 2700K 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: 12811.5 lumens
Efficiency: N/A
Efficacy: 79.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G2

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

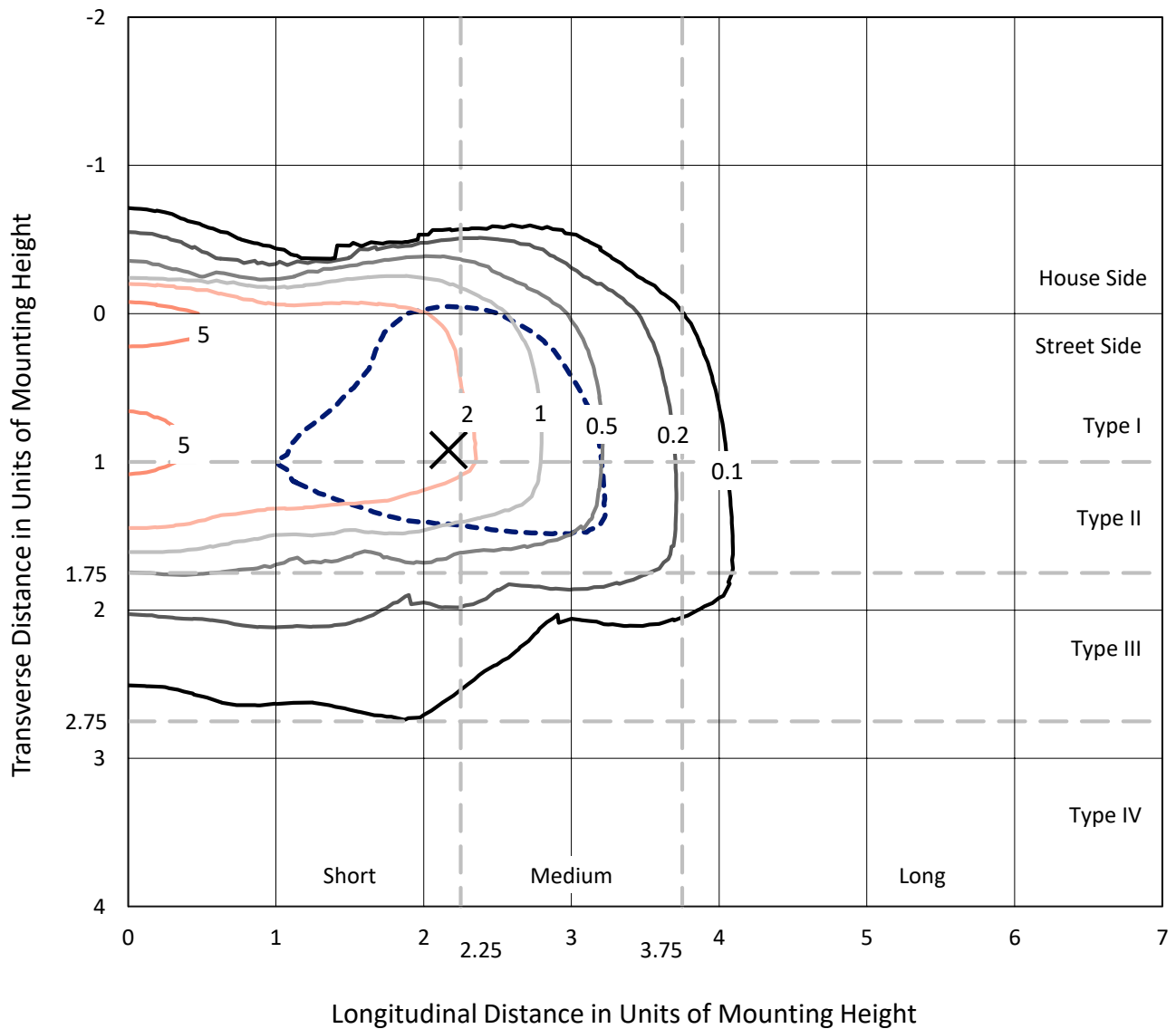


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

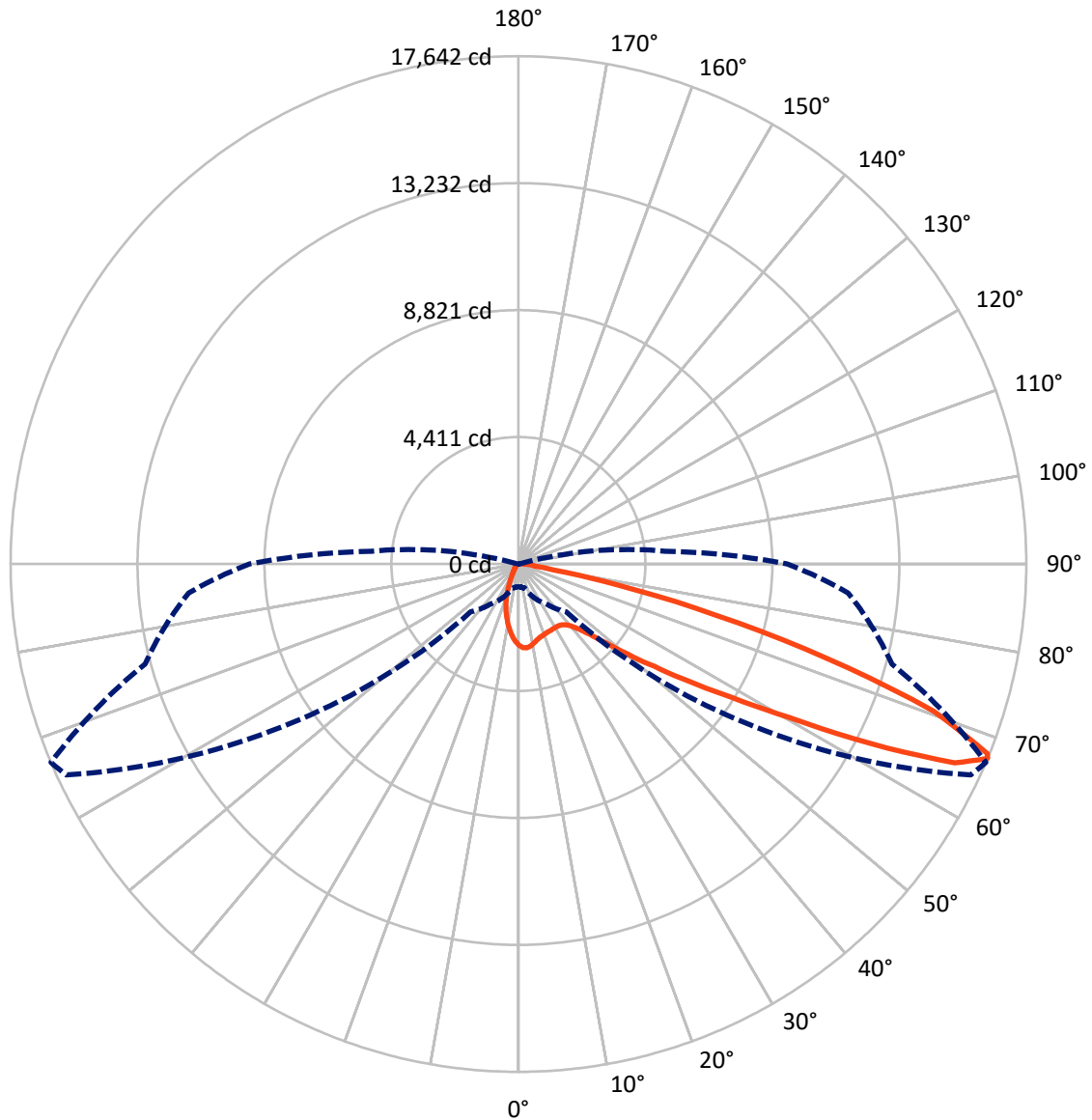


Based on 20 foot mounting height. Maximum calculated value = 7.1 fc
 Type II - Short - Semi-Cutoff

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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
House Side	Lumens	1330.2	0.0	1330.2
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	11481.3	0.0	11481.3
	% Fixture	89.6	0.0	89.6
Total	Lumens	12811.5	0.0	12811.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	229.9	1.8
10°-20°	489.3	3.8
20°-30°	711.4	5.6
30°-40°	1109.8	8.7
40°-50°	1966.0	15.3
50°-60°	3111.1	24.3
60°-70°	3563.3	27.8
70°-80°	1478.0	11.5
80°-90°	152.7	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°	12811.5	100.0
0°-180°	12811.5	100.0

Coefficient of Utilization



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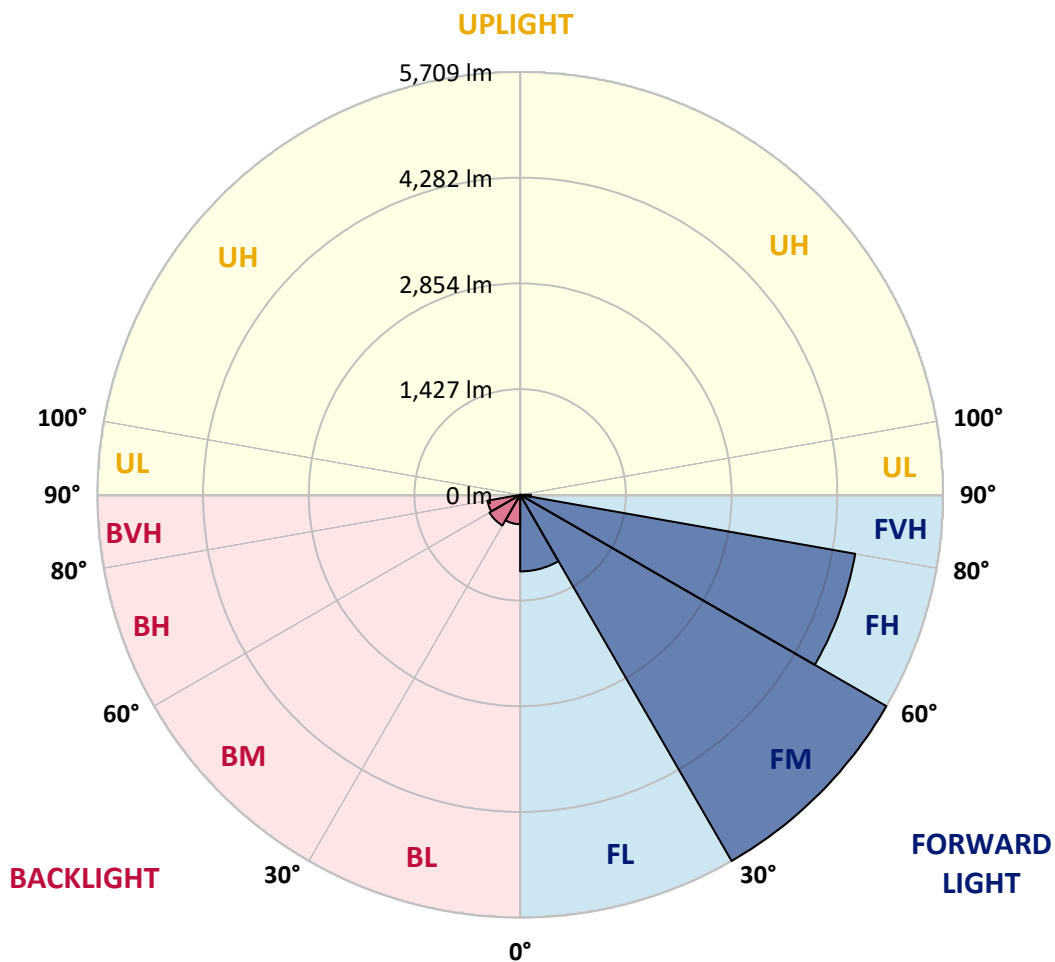
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1033.7	8.1			
FM (30°-60°)	5708.9	44.6			
FH (60°-80°)	4593.0	35.9			G2/5000
FVH (80°-90°)	145.8	1.1			G2/225
BL (0°-30°)	396.9	3.1	B1/500		
BM (30°-60°)	478.1	3.7	B1/1000		
BH (60°-80°)	448.3	3.5	B1/500		G1/500
BVH (80°-90°)	6.9	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°	2825.4	2825.4	2825.4	2825.4	2825.4	2825.4	2825.4	2825.4	2825.4	2825.4	2825.4
2.5°	2921.1	2927.0	2926.3	2930.8	2941.2	2942.0	2931.5	2911.4	2906.9	2880.7	2835.1
5°	2693.9	2711.1	2721.5	2764.1	2812.0	2869.5	2912.9	2928.5	2926.3	2907.6	2838.9
7.5°	2434.6	2451.8	2463.7	2513.8	2577.3	2676.0	2788.8	2881.5	2889.7	2909.9	2835.9
10°	2262.0	2265.0	2281.4	2329.2	2395.7	2496.6	2631.1	2793.3	2817.9	2891.9	2828.4
12.5°	2120.0	2122.2	2143.9	2195.5	2266.5	2368.1	2509.3	2696.9	2735.0	2869.5	2826.9
15°	2019.1	2027.3	2046.8	2100.6	2176.0	2276.9	2421.9	2625.9	2671.5	2861.3	2840.4
17.5°	1985.5	1994.5	2000.4	2039.3	2108.0	2206.7	2355.4	2579.6	2631.1	2865.8	2866.5
20°	2020.6	2027.3	2013.9	2023.6	2066.2	2154.4	2299.3	2540.0	2601.2	2871.0	2900.1
22.5°	2151.4	2154.4	2117.8	2075.2	2067.7	2116.3	2255.3	2508.6	2574.3	2885.2	2939.8
25°	2375.6	2370.3	2310.6	2218.6	2132.0	2109.5	2229.1	2489.1	2560.9	2900.1	2980.9
27.5°	2646.1	2653.5	2571.3	2437.6	2272.4	2154.4	2225.4	2480.9	2554.9	2910.6	3016.7
30°	2974.9	2985.3	2891.2	2723.0	2486.2	2265.0	2259.7	2479.4	2551.2	2903.9	3019.7
32.5°	3310.4	3323.1	3249.1	3075.8	2771.6	2450.3	2337.5	2495.9	2558.6	2880.7	3002.5
35°	3661.6	3679.5	3630.2	3481.5	3158.7	2717.8	2474.2	2545.9	2593.8	2878.5	2985.3
37.5°	4146.6	4163.0	4070.4	3912.7	3627.2	3076.5	2693.9	2640.1	2676.7	2914.3	2989.8
40°	4870.7	4868.5	4629.3	4388.0	4142.1	3532.3	3002.5	2810.5	2829.2	3022.7	3045.1
42.5°	5659.8	5656.1	5302.6	4935.7	4713.8	4093.5	3408.3	3104.9	3092.2	3222.2	3188.6
45°	6268.1	6267.3	5978.9	5565.7	5402.0	4737.7	3932.9	3514.4	3495.0	3546.5	3453.1
47.5°	6527.4	6531.9	6386.9	6096.2	6165.0	5609.0	4594.2	4107.7	4078.6	4057.7	3915.7
50°	6325.6	6334.6	6346.5	6289.8	6724.7	6780.0	5481.2	4943.9	4929.7	4836.3	4614.4
52.5°	5666.5	5712.1	5852.6	6032.7	6919.0	7903.9	6871.9	5982.6	5906.4	5807.0	5562.7
55°	4556.1	4606.2	4872.9	5310.1	6629.8	8642.2	8820.8	7321.7	7194.7	6898.0	6545.3
57.5°	3015.2	3092.9	3480.0	4036.0	5789.8	8761.0	10765.1	9180.2	8737.8	7925.5	7528.0
60°	1661.2	1735.9	2155.9	2659.5	4181.7	8173.6	12072.9	11599.8	10818.2	9074.1	8721.4
62.5°	1023.0	1063.4	1373.5	1842.0	2507.8	6451.2	12343.4	14640.5	13735.5	10552.9	10162.8
65°	814.5	831.7	983.4	1505.7	1797.9	3837.2	11469.8	16958.5	16656.6	12343.4	11453.4
67°	790.6	797.3	869.1	1292.8	1694.8	2352.4	9609.1	17335.9	17642.2	13426.9	11493.7
67.5°	795.8	803.3	871.3	1233.7	1691.8	2161.8	8968.0	17187.2	17574.2	13512.8	11315.1
70°	767.4	790.6	997.6	1233.0	1608.9	1796.4	5370.6	14891.6	15294.3	12555.6	9600.9
72.5°	272.0	273.5	431.2	997.6	1749.4	1815.9	2696.9	10916.8	11215.0	9604.6	6921.9
75°	161.4	137.5	143.5	284.0	1671.6	1763.6	1555.8	6975.7	7087.1	5503.6	3505.4
77.5°	111.3	97.1	100.1	125.5	636.7	1738.9	1236.0	3637.7	3518.9	1930.2	746.5
80°	63.5	56.0	59.8	109.8	231.7	1622.3	1165.7	1475.1	1257.7	327.3	206.2
82.5°	33.6	28.4	34.4	90.4	161.4	1011.1	1168.0	712.9	564.9	110.6	140.5
85°	12.0	9.7	16.4	62.0	107.6	310.1	1082.8	599.3	470.8	53.8	106.9
87.5°	2.2	2.2	6.7	25.4	43.3	94.9	640.4	355.7	238.4	32.1	73.2
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°	2825.4	2825.4	2825.4	2825.4	2825.4	2825.4	2825.4	2825.4	2825.4	2825.4	2825.4
2.5°	2816.5	2784.3	2741.0	2687.9	2625.2	2569.9	2528.8	2486.2	2477.2	2462.2	2460.0
5°	2797.8	2742.5	2634.9	2511.6	2380.0	2261.2	2164.8	2078.9	2040.8	2007.9	2004.2
7.5°	2770.1	2687.2	2504.1	2305.3	2099.8	1913.0	1754.6	1642.5	1539.4	1490.1	1482.6
10°	2738.0	2619.2	2356.9	2081.1	1797.2	1533.4	1298.0	1100.7	981.2	910.2	901.2
12.5°	2708.1	2552.7	2206.7	1848.7	1471.4	1118.7	816.0	627.7	502.2	451.3	445.4
15°	2693.9	2498.9	2066.2	1611.1	1130.6	712.1	446.1	345.2	304.1	292.2	291.4
17.5°	2692.4	2453.3	1928.7	1365.3	792.1	414.0	290.7	265.3	257.1	254.1	254.1
20°	2691.7	2409.9	1791.2	1110.4	502.9	275.7	242.1	236.1	230.2	226.4	226.4
22.5°	2699.9	2371.1	1647.7	850.4	316.8	223.4	213.0	207.0	199.5	194.3	193.5
25°	2708.1	2341.2	1501.3	605.3	229.4	194.3	183.8	175.6	165.1	158.4	157.7
27.5°	2709.6	2303.8	1344.3	405.0	192.0	169.6	156.2	143.5	131.5	124.8	124.0
30°	2687.2	2241.1	1170.2	273.5	169.6	147.2	129.3	115.8	104.6	99.4	99.4
32.5°	2643.1	2163.3	978.9	206.2	150.9	126.3	106.9	94.2	86.7	84.4	83.7
35°	2603.5	2079.6	782.4	174.9	135.3	106.9	87.4	79.2	74.7	74.0	73.2
37.5°	2580.3	2012.4	597.8	158.4	120.3	89.7	74.0	68.0	65.8	64.3	65.0
40°	2598.3	1956.3	441.6	145.0	105.4	74.7	62.8	59.8	57.5	56.8	56.8
42.5°	2676.7	1946.6	328.1	133.0	91.2	62.0	54.6	52.3	50.8	50.1	50.8
45°	2883.0	2006.4	254.8	121.8	77.0	52.3	46.3	45.6	44.8	44.8	44.8
47.5°	3193.1	2129.7	212.2	109.1	64.3	44.8	40.4	39.6	38.9	39.6	39.6
50°	3718.4	2355.4	189.8	96.4	53.1	38.1	34.4	34.4	34.4	34.4	35.1
52.5°	4517.2	2799.3	174.9	83.7	43.3	32.1	29.1	29.1	29.9	29.9	30.6
55°	5407.2	3388.1	161.4	71.0	36.6	26.9	23.9	24.7	25.4	26.2	26.2
57.5°	6372.7	4040.5	150.2	58.3	31.4	21.7	20.2	20.9	21.7	23.2	23.2
60°	7537.7	4746.6	133.8	45.6	26.2	17.2	15.7	17.2	19.4	20.9	21.7
62.5°	8817.0	5429.6	112.8	35.9	21.7	13.5	12.7	15.7	18.7	20.2	20.9
65°	9691.3	5644.1	86.7	29.1	16.4	9.7	10.5	14.2	17.9	20.2	20.2
67°	9337.1	5117.3	71.0	24.7	13.5	7.5	9.7	14.2	17.9	19.4	20.2
67.5°	9091.3	4911.0	68.0	23.9	12.7	7.5	9.7	14.2	17.9	20.2	20.2
70°	7397.2	3689.3	56.8	17.9	10.5	6.7	8.2	13.5	17.2	19.4	19.4
72.5°	5139.7	2274.7	50.8	12.7	9.0	6.0	7.5	12.7	16.4	18.7	19.4
75°	2443.6	823.5	43.3	9.7	8.2	5.2	6.7	12.7	16.4	18.7	18.7
77.5°	498.4	191.3	35.1	8.2	6.7	5.2	6.0	12.0	15.7	17.9	17.9
80°	163.7	74.0	26.2	7.5	6.7	5.2	6.0	11.2	15.7	17.2	17.9
82.5°	118.1	37.4	17.2	7.5	6.7	5.2	5.2	11.2	14.9	17.2	17.2
85°	90.4	26.2	11.2	7.5	6.7	5.2	5.2	10.5	14.2	16.4	16.4
87.5°	59.8	10.5	9.0	7.5	6.7	5.2	5.2	10.5	13.5	15.7	16.4
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)