

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: P299995

Luminaire Tested: **GLNA-AF-04-LED-E1-SL3-7027-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299995
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194479)
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-SL3-7027-600-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
w/Spill Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10665.2 lumens
Efficiency: N/A
Efficacy: 82.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-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

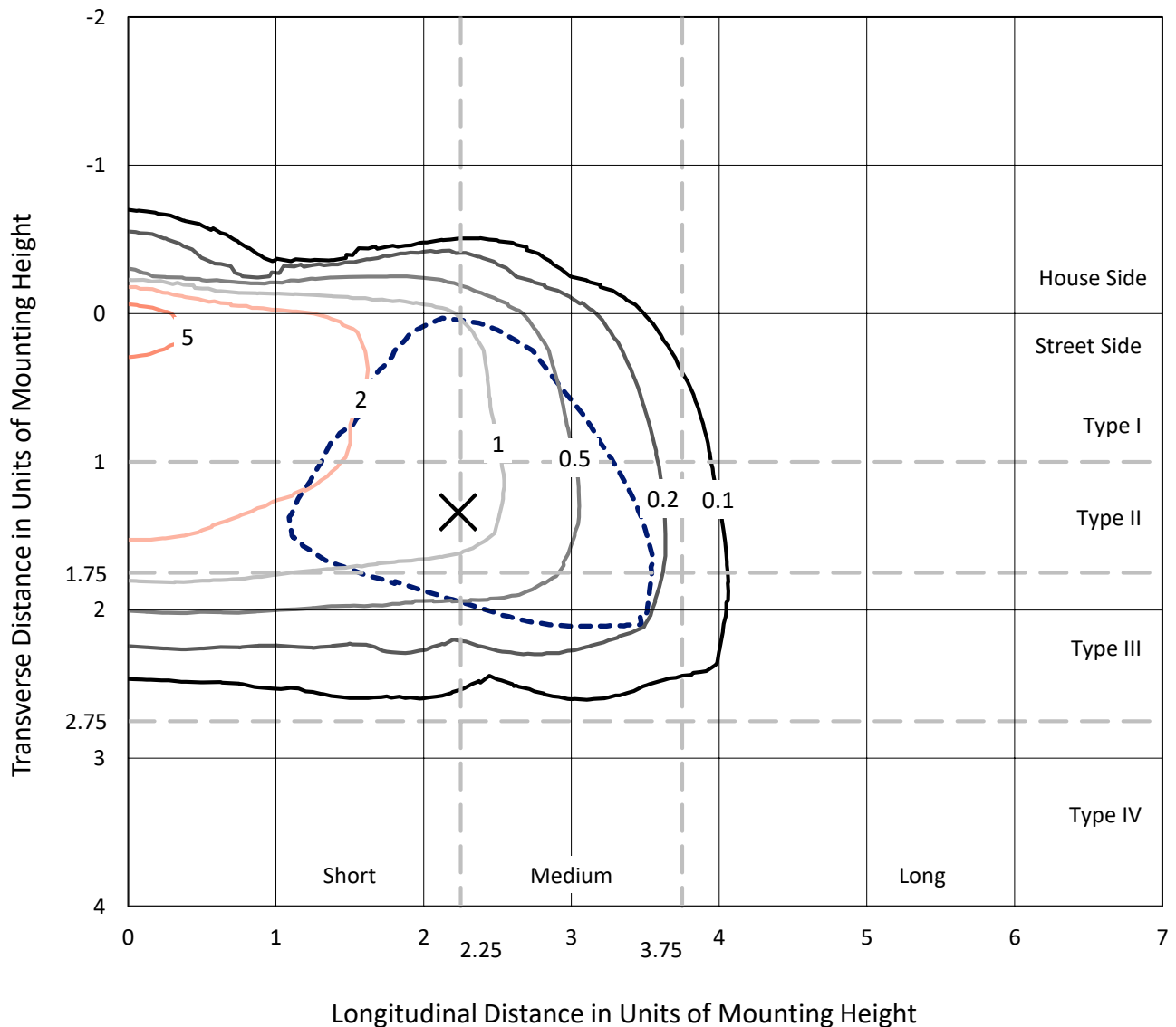


REPORT NUMBER: P299995

CATALOG NUMBER: GLNA-AF-04-LED-E1-SL3-7027-600-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

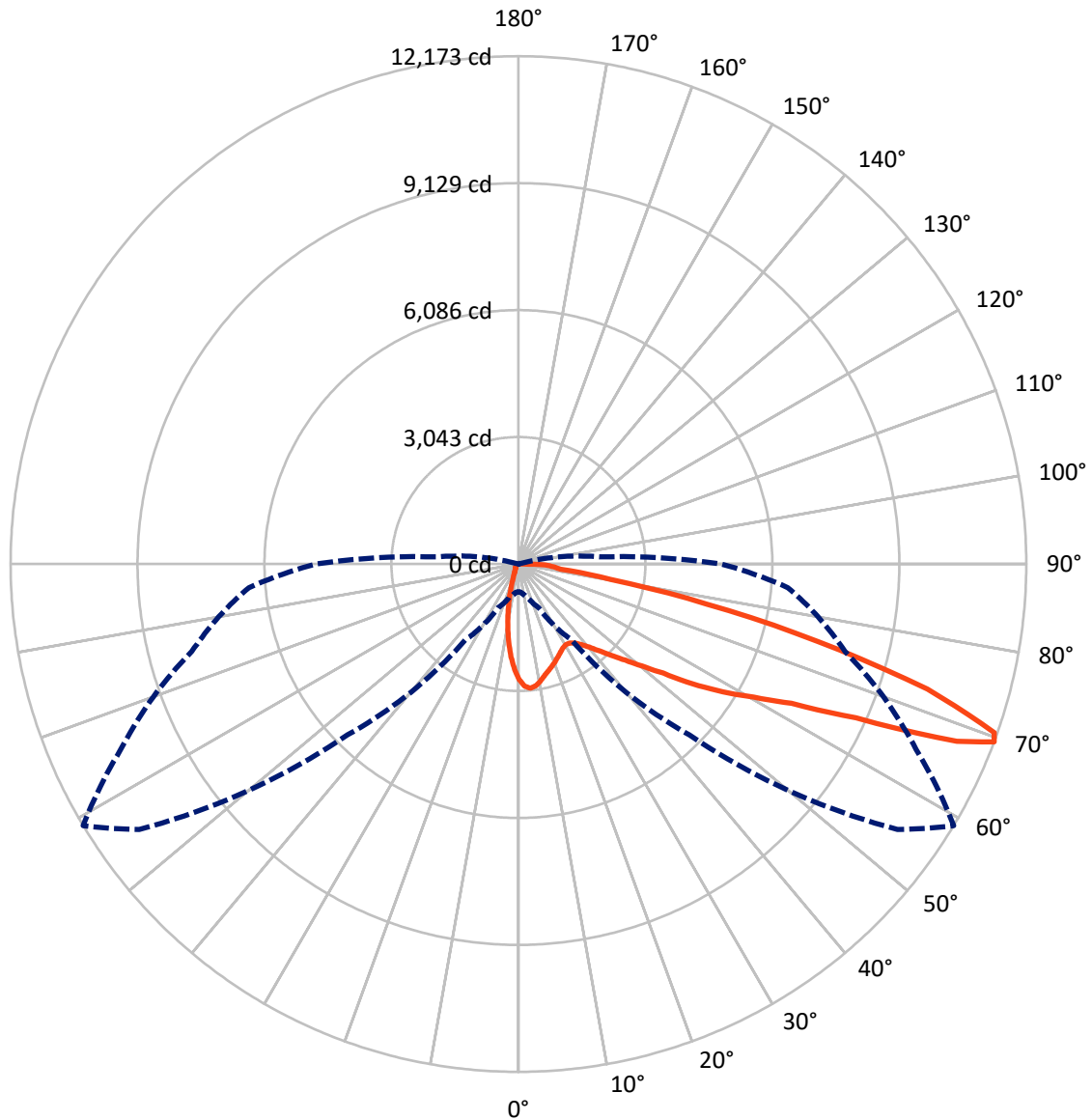


Based on 20 foot mounting height. Maximum calculated value = 7 fc
 Type III - Short - Non-Cutoff

REPORT NUMBER: P299995

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	868.5	0.0	868.5
	% Fixture	8.1	0.0	8.1
Street Side	Lumens	9796.6	0.0	9796.6
	% Fixture	91.9	0.0	91.9
Total	Lumens	10665.2	0.0	10665.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	225.3	2.1
10°-20°	465.6	4.4
20°-30°	626.5	5.9
30°-40°	909.7	8.5
40°-50°	1514.6	14.2
50°-60°	2362.8	22.2
60°-70°	2923.8	27.4
70°-80°	1481.8	13.9
80°-90°	155.0	1.5
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°	10665.2	100.0
0°-180°	10665.2	100.0



REPORT NUMBER: P299995

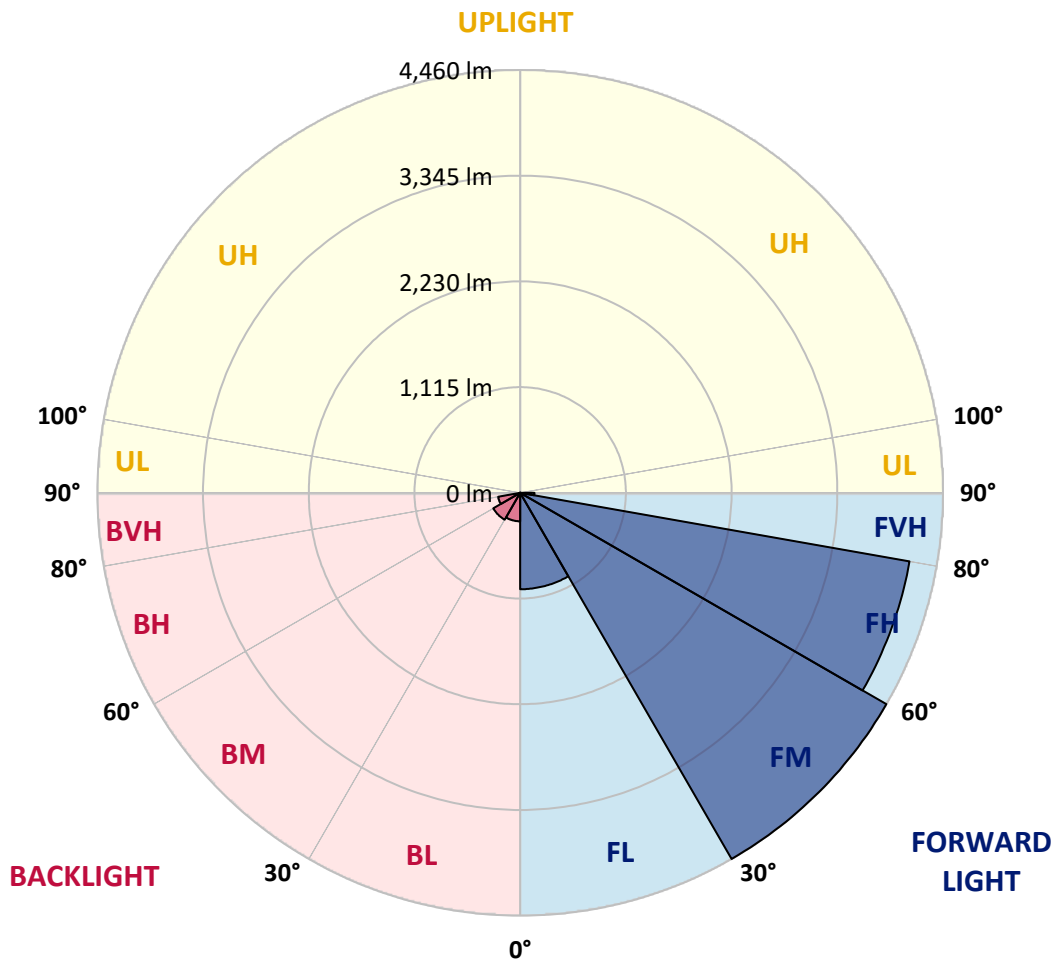
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1016.8	9.5			
FM	(30°-60°)	4459.9	41.8			
FH	(60°-80°)	4169.7	39.1			G2/5000
FVH	(80°-90°)	150.3	1.4			G2/225
BL	(0°-30°)	300.6	2.8	B1/500		
BM	(30°-60°)	327.3	3.1	B1/1000		
BH	(60°-80°)	235.9	2.2	B1/500		G1/500
BVH	(80°-90°)	4.8	0.0			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 III Short





REPORT NUMBER: P299995

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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	2775.9	2775.9	2775.9	2775.9	2775.9	2775.9	2775.9	2775.9	2775.9	2775.9	2775.9
2.5°	3042.5	3041.4	3028.1	3022.1	3011.1	2988.3	2952.7	2934.1	2903.9	2851.3	2780.9
5°	3014.8	3029.4	3037.0	3037.8	3045.6	3037.0	3005.1	2989.6	2947.9	2863.4	2736.9
7.5°	2826.7	2832.0	2854.5	2873.6	2911.1	2946.7	2958.2	2951.4	2926.8	2836.4	2668.0
10°	2625.3	2630.6	2657.3	2682.5	2733.2	2788.0	2845.9	2858.1	2868.3	2797.7	2601.7
12.5°	2451.5	2457.0	2484.2	2517.2	2576.4	2643.9	2733.8	2753.7	2798.9	2761.0	2548.6
15°	2301.9	2304.3	2331.0	2371.9	2442.5	2529.3	2631.3	2663.3	2732.7	2735.0	2502.2
17.5°	2174.7	2180.7	2197.1	2236.2	2313.4	2420.8	2539.7	2585.5	2666.7	2713.3	2457.0
20°	2096.9	2102.9	2102.4	2124.1	2193.5	2308.0	2448.0	2502.8	2601.7	2691.0	2416.6
22.5°	2081.9	2081.9	2066.2	2063.1	2104.2	2200.0	2352.7	2419.5	2543.1	2681.4	2388.3
25°	2135.6	2133.0	2094.0	2062.0	2063.8	2121.0	2260.3	2339.9	2493.8	2687.9	2373.1
27.5°	2249.0	2245.9	2196.4	2135.6	2086.7	2086.1	2190.4	2276.0	2454.6	2719.3	2379.2
30°	2405.6	2404.5	2350.9	2274.2	2185.6	2104.2	2166.3	2244.0	2429.2	2775.9	2393.0
32.5°	2576.9	2575.1	2534.7	2454.0	2341.7	2185.6	2191.6	2256.8	2436.5	2851.3	2426.8
35°	2758.6	2755.5	2738.0	2667.5	2543.9	2335.7	2274.9	2325.5	2482.3	2964.2	2493.1
37.5°	2955.1	2958.2	2970.8	2903.2	2773.6	2546.2	2414.2	2448.6	2574.5	3117.4	2601.0
40°	3245.2	3244.7	3248.8	3160.1	3035.4	2803.7	2608.9	2619.8	2729.0	3320.6	2765.2
42.5°	3771.6	3734.9	3623.3	3442.4	3317.0	3098.0	2854.5	2842.9	2917.8	3572.0	2994.9
45°	4479.2	4400.6	4111.2	3764.5	3604.0	3429.8	3156.5	3119.8	3167.4	3874.2	3278.4
47.5°	5087.5	5006.1	4596.7	4099.7	3908.6	3744.6	3510.5	3444.2	3459.9	4212.6	3637.8
50°	5294.4	5254.6	4897.1	4391.7	4203.4	4140.8	3921.3	3840.4	3818.2	4603.9	4054.4
52.5°	5222.7	5219.7	4981.5	4581.0	4473.7	4550.9	4438.1	4344.6	4262.6	5016.5	4478.4
55°	5107.4	5122.6	5015.8	4746.8	4743.2	4925.4	5144.9	5067.1	4829.5	5464.6	4844.0
57.5°	4789.7	4854.2	4996.6	5060.5	5208.8	5395.2	5733.6	5779.4	5498.4	5807.7	5147.3
60°	3886.3	4028.0	4493.6	5105.6	5809.0	6273.3	6444.0	6483.1	6047.1	6092.9	5556.8
62.5°	2758.6	2903.2	3493.7	4529.2	5817.9	7426.9	7502.3	7348.6	6651.4	6515.8	6263.1
65°	1464.2	1575.9	2058.4	3269.3	5044.3	7694.8	9353.2	8894.9	7717.6	7347.3	7175.5
67.5°	749.0	782.8	974.7	1600.0	3467.8	6834.8	11012.3	11334.9	9555.2	8172.4	7131.5
69°	662.8	682.7	810.0	1156.7	2220.5	5789.1	11093.2	12172.6	10517.3	8103.6	6480.7
70°	641.6	659.2	774.9	1047.0	1735.7	4854.7	10783.7	12099.1	10763.2	7841.9	5994.7
72.5°	544.7	559.6	690.0	925.2	1410.7	2409.8	8759.8	10252.5	9658.4	6532.6	4339.1
75°	364.3	413.8	662.3	867.3	1312.3	1369.1	5775.2	7408.8	6882.4	4406.1	2260.3
77.5°	87.5	94.0	187.0	690.0	1200.2	1204.9	2970.2	4605.7	3756.6	1570.5	534.3
80°	47.1	45.3	52.4	136.9	1117.5	1130.8	1337.1	2235.6	1341.3	260.6	176.0
82.5°	33.2	31.4	33.8	57.3	351.7	1030.0	967.4	1011.9	556.0	100.1	79.1
85°	12.1	11.5	18.6	51.9	110.3	592.1	993.8	834.6	450.5	45.8	57.9
87.5°	4.2	3.7	7.3	28.3	33.8	252.2	613.3	630.9	177.3	27.8	27.2
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°	2775.9	2775.9	2775.9	2775.9	2775.9	2775.9	2775.9	2775.9	2775.9	2775.9	2775.9
2.5°	2751.3	2713.9	2645.2	2574.5	2509.4	2431.0	2391.8	2353.2	2337.0	2331.0	2302.7
5°	2671.7	2608.3	2462.4	2315.8	2180.7	2037.2	1942.6	1866.6	1821.9	1800.2	1765.8
7.5°	2569.8	2466.1	2244.6	2018.5	1808.0	1600.6	1446.9	1328.5	1247.1	1208.0	1172.4
10°	2470.8	2332.8	2018.0	1709.8	1423.8	1148.9	936.5	782.8	684.5	639.3	610.4
12.5°	2382.3	2203.1	1799.1	1408.9	1049.9	728.0	512.0	389.7	328.7	307.5	297.3
15°	2303.2	2083.7	1592.2	1122.9	711.0	416.1	279.9	238.3	228.6	228.6	227.3
17.5°	2228.3	1966.7	1392.4	854.5	446.3	254.5	212.9	207.4	207.4	209.8	209.8
20°	2156.6	1855.1	1199.4	613.3	281.0	201.9	192.5	191.2	192.5	195.4	195.4
22.5°	2095.1	1753.8	1019.2	420.9	208.7	182.0	177.3	175.5	176.0	177.8	179.1
25°	2049.2	1668.2	849.2	285.2	179.7	165.8	160.5	157.4	155.0	155.0	156.1
27.5°	2020.4	1595.8	684.5	207.4	161.6	150.8	142.2	137.5	132.0	129.1	130.2
30°	1999.2	1527.0	530.1	169.4	144.8	133.8	123.1	115.2	107.4	103.7	105.0
32.5°	1991.3	1471.5	396.2	149.5	129.6	117.6	104.3	94.0	85.6	82.5	83.3
35°	2012.5	1427.5	290.1	135.1	117.6	102.4	87.5	76.0	69.4	67.6	68.1
37.5°	2068.0	1403.9	217.1	123.1	106.8	89.8	73.0	62.1	57.9	57.9	58.4
40°	2172.8	1403.4	174.4	114.7	97.1	77.8	60.3	52.4	50.0	51.3	51.9
42.5°	2326.0	1435.4	151.9	106.8	88.7	66.3	50.0	44.6	44.0	45.3	45.8
45°	2535.3	1493.8	139.9	100.1	79.6	55.5	42.2	38.5	38.5	40.4	41.1
47.5°	2791.6	1579.4	129.6	93.5	70.5	46.4	36.2	33.8	34.3	36.2	36.7
50°	3100.4	1687.5	119.4	86.2	63.9	38.5	31.4	29.6	30.1	32.5	33.2
52.5°	3452.1	1832.9	111.0	79.6	55.5	32.0	26.5	25.4	26.5	29.0	29.6
55°	3753.5	1963.0	100.8	74.1	44.6	26.5	21.7	21.7	23.0	25.9	26.5
57.5°	4043.7	2099.3	91.7	63.9	35.1	21.2	18.1	18.6	20.5	23.6	24.1
60°	4469.5	2330.2	80.9	53.7	26.5	16.8	15.2	15.7	18.1	21.2	21.7
62.5°	5192.5	2681.9	69.9	44.6	20.5	13.3	12.1	13.3	16.3	19.9	20.5
65°	5845.1	2824.9	57.3	37.4	15.7	10.2	10.2	12.1	15.7	19.4	19.9
67.5°	5481.4	2377.9	44.6	29.6	12.1	7.9	8.4	11.5	15.2	19.4	19.9
69°	4847.6	1944.4	38.0	23.6	10.2	7.3	7.9	11.5	15.2	18.6	19.4
70°	4353.7	1641.7	33.8	19.9	9.1	7.3	7.9	10.8	15.2	18.6	19.4
72.5°	2916.0	886.5	27.2	14.4	8.4	6.6	6.6	10.8	14.4	18.1	18.6
75°	1253.1	244.9	21.7	10.2	7.3	6.0	6.0	10.2	13.9	17.5	18.6
77.5°	229.2	62.1	17.5	9.1	7.3	6.0	5.5	9.7	13.3	16.8	17.5
80°	91.1	30.7	13.9	7.9	6.6	5.5	4.7	9.1	12.6	16.3	16.8
82.5°	55.0	17.5	11.5	7.3	6.6	4.7	4.2	7.9	12.1	15.7	16.3
85°	44.6	12.1	9.1	7.3	6.0	4.7	3.7	7.3	10.8	15.2	15.7
87.5°	21.7	8.4	8.4	6.6	6.0	4.7	3.7	6.6	10.2	14.4	15.2
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)