

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-03-LED-E1-SL3-7027-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-03-LED-E1-SL3-7027-HSS
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 2700K CCT 1050mA 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: 12252.7 lumens
Efficiency: N/A
Efficacy: 73.8 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

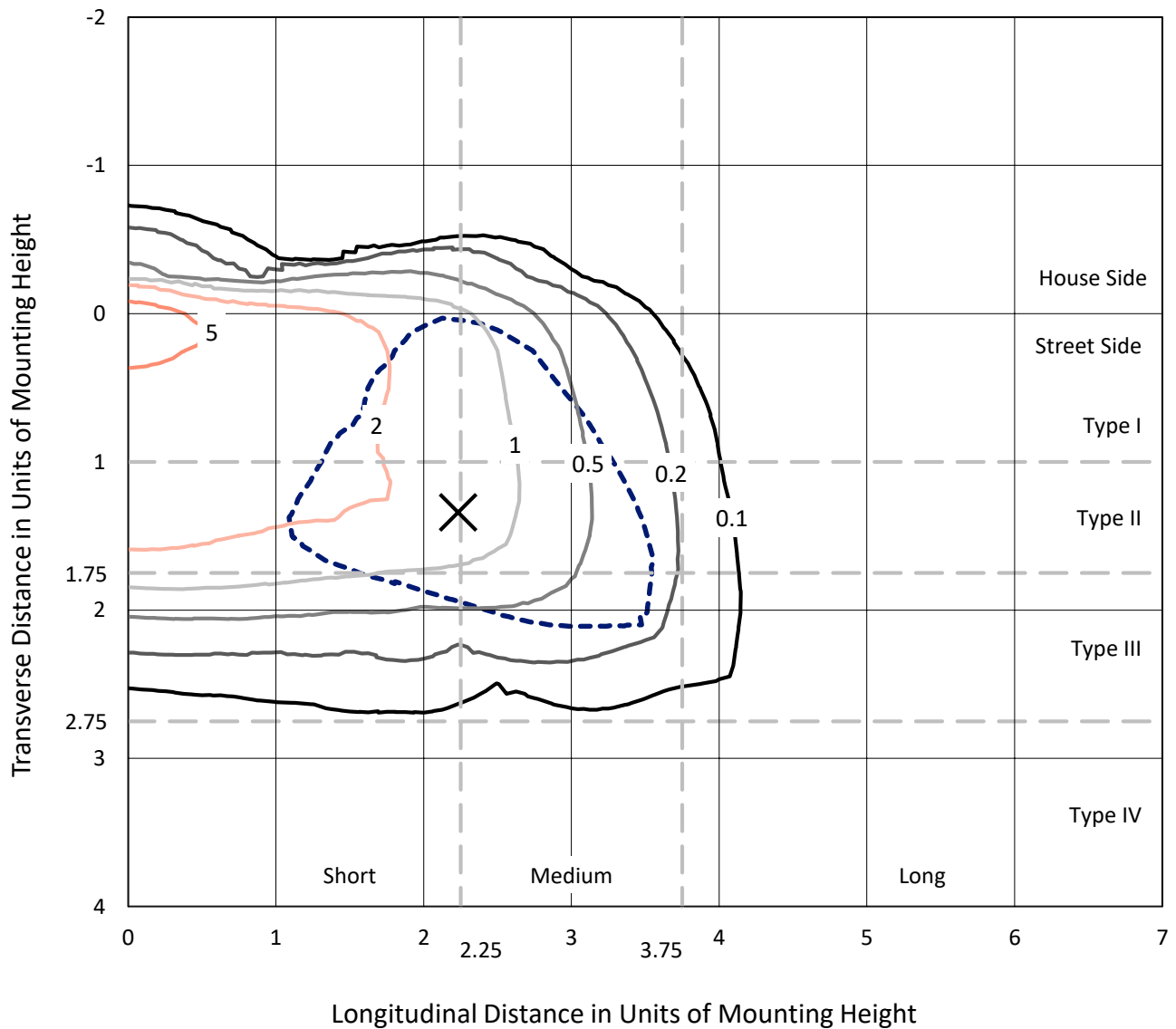
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

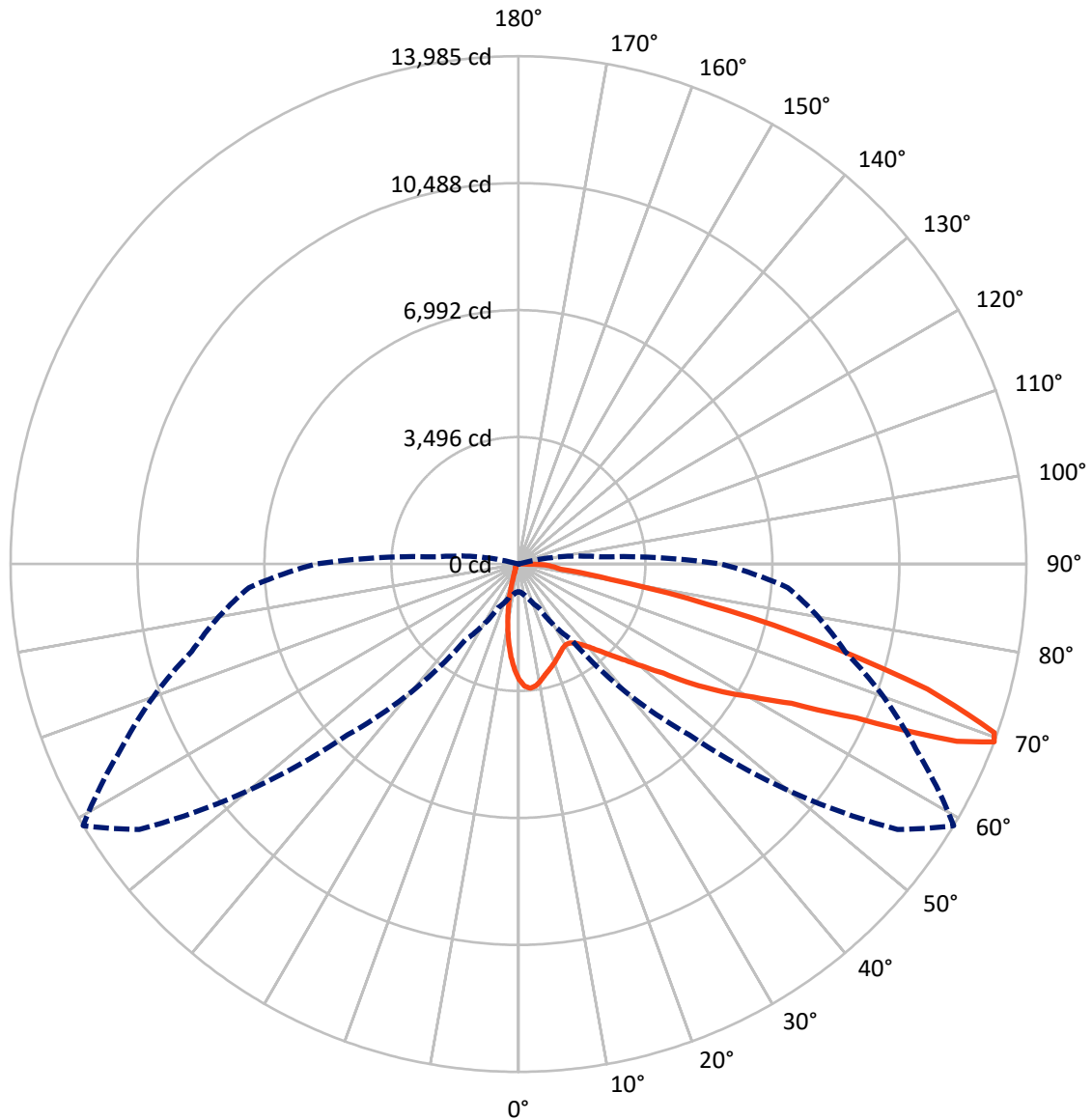
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 8 fc
 Type III - Short - Non-Cutoff

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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	997.8	0.0	997.8
	% Fixture	8.1	0.0	8.1
Street Side	Lumens	11254.9	0.0	11254.9
	% Fixture	91.9	0.0	91.9
Total	Lumens	12252.7	0.0	12252.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	258.9	2.1
10°-20°	534.9	4.4
20°-30°	719.8	5.9
30°-40°	1045.1	8.5
40°-50°	1740.1	14.2
50°-60°	2714.5	22.2
60°-70°	3359.0	27.4
70°-80°	1702.3	13.9
80°-90°	178.1	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°	12252.7	100.0
0°-180°	12252.7	100.0

Coefficient of Utilization



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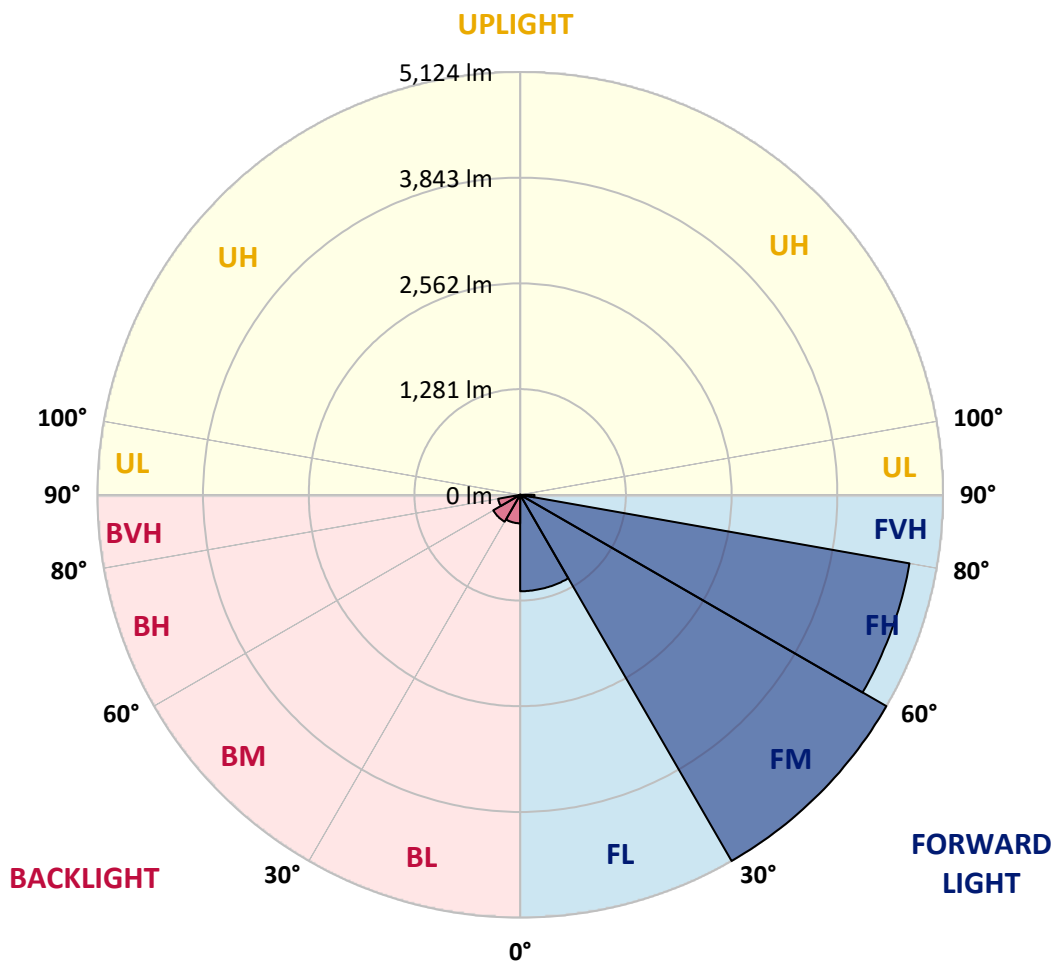
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1168.2	9.5			
FM	(30°-60°)	5123.7	41.8			
FH	(60°-80°)	4790.4	39.1			G2/5000
FVH	(80°-90°)	172.6	1.4			G2/225
BL	(0°-30°)	345.4	2.8	B1/500		
BM	(30°-60°)	376.0	3.1	B1/1000		
BH	(60°-80°)	271.0	2.2	B1/500		G1/500
BVH	(80°-90°)	5.5	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	3189.1	3189.1	3189.1	3189.1	3189.1	3189.1	3189.1	3189.1	3189.1	3189.1	3189.1
2.5°	3495.4	3494.1	3478.8	3471.9	3459.3	3433.1	3392.2	3370.8	3336.2	3275.8	3194.8
5°	3463.5	3480.3	3489.1	3490.0	3499.0	3489.1	3452.4	3434.6	3386.7	3289.6	3144.3
7.5°	3247.5	3253.5	3279.3	3301.4	3344.4	3385.3	3398.5	3390.7	3362.4	3258.6	3065.2
10°	3016.1	3022.2	3052.8	3081.7	3140.1	3203.0	3269.5	3283.5	3295.3	3214.1	2989.0
12.5°	2816.4	2822.7	2853.9	2891.9	2959.9	3037.5	3140.7	3163.5	3215.6	3171.9	2928.0
15°	2644.6	2647.3	2677.9	2724.9	2806.1	2905.7	3023.0	3059.7	3139.4	3142.2	2874.7
17.5°	2498.4	2505.3	2524.2	2569.1	2657.8	2781.1	2917.7	2970.4	3063.7	3117.2	2822.7
20°	2409.0	2415.9	2415.3	2440.3	2520.0	2651.5	2812.4	2875.3	2989.0	3091.6	2776.3
22.5°	2391.8	2391.8	2373.8	2370.2	2417.4	2527.5	2702.9	2779.7	2921.7	3080.5	2743.8
25°	2453.5	2450.5	2405.6	2368.9	2371.0	2436.7	2596.7	2688.2	2865.0	3088.0	2726.4
27.5°	2583.7	2580.2	2523.3	2453.5	2397.3	2396.6	2516.4	2614.8	2819.9	3124.1	2733.3
30°	2763.7	2762.5	2700.8	2612.7	2511.0	2417.4	2488.7	2578.1	2790.8	3189.1	2749.3
32.5°	2960.5	2958.4	2912.0	2819.3	2690.3	2511.0	2517.9	2592.8	2799.2	3275.8	2788.1
35°	3169.2	3165.6	3145.5	3064.5	2922.5	2683.4	2613.5	2671.6	2851.8	3405.4	2864.2
37.5°	3394.9	3398.5	3413.0	3335.4	3186.4	2925.3	2773.6	2813.0	2957.8	3581.4	2988.2
40°	3728.3	3727.6	3732.4	3630.5	3487.2	3221.0	2997.2	3009.8	3135.2	3814.9	3176.8
42.5°	4333.0	4290.9	4162.7	3954.8	3810.7	3559.2	3279.3	3266.1	3352.1	4103.7	3440.7
45°	5145.9	5055.7	4723.2	4324.8	4140.5	3940.3	3626.3	3584.1	3638.9	4450.9	3766.4
47.5°	5844.8	5751.3	5281.0	4710.0	4490.3	4302.0	4033.0	3956.9	3974.9	4839.6	4179.3
50°	6082.5	6036.8	5626.0	5045.4	4829.1	4757.2	4505.0	4412.1	4386.5	5289.2	4658.0
52.5°	6000.1	5996.7	5723.0	5262.9	5139.6	5228.3	5098.7	4991.3	4897.1	5763.2	5145.0
55°	5867.7	5885.1	5762.4	5453.4	5449.2	5658.6	5910.7	5821.3	5548.4	6278.0	5565.0
57.5°	5502.7	5576.8	5740.4	5813.8	5984.1	6198.3	6587.0	6639.7	6316.8	6672.2	5913.4
60°	4464.8	4627.5	5162.5	5865.6	6673.6	7207.1	7403.2	7448.1	6947.2	6999.8	6383.9
62.5°	3169.2	3335.4	4013.7	5203.4	6683.9	8532.4	8619.1	8442.4	7641.5	7485.7	7195.3
65°	1682.2	1810.5	2364.7	3755.9	5795.1	8840.2	10745.5	10219.0	8866.4	8441.0	8243.6
67.5°	860.5	899.3	1119.8	1838.2	3984.0	7852.1	12651.5	13022.1	10977.5	9388.9	8193.0
69°	761.5	784.3	930.5	1328.9	2551.0	6650.8	12744.4	13984.6	12082.8	9309.8	7445.4
70°	737.1	757.3	890.3	1202.8	1994.1	5577.4	12388.8	13900.0	12365.3	9009.2	6887.0
72.5°	625.7	642.9	792.7	1062.9	1620.7	2768.6	10063.7	11778.6	11096.0	7505.0	4985.0
75°	418.5	475.3	760.8	996.4	1507.6	1572.9	6634.8	8511.6	7906.9	5062.0	2596.7
77.5°	100.5	108.0	214.8	792.7	1378.8	1384.3	3412.3	5291.3	4315.8	1804.2	613.8
80°	54.1	52.0	60.2	157.3	1283.8	1299.1	1536.1	2568.4	1541.0	299.3	202.2
82.5°	38.2	36.1	38.8	65.9	404.0	1183.3	1111.4	1162.5	638.8	115.0	90.8
85°	13.8	13.2	21.4	59.6	126.7	680.3	1141.8	958.9	517.5	52.7	66.5
87.5°	4.8	4.2	8.4	32.5	38.8	289.7	704.6	724.8	203.7	31.9	31.3
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°	3189.1	3189.1	3189.1	3189.1	3189.1	3189.1	3189.1	3189.1	3189.1	3189.1	3189.1
2.5°	3160.8	3117.8	3038.9	2957.8	2882.9	2792.9	2747.8	2703.5	2684.9	2677.9	2645.4
5°	3069.4	2996.6	2829.0	2660.5	2505.3	2340.4	2231.7	2144.5	2093.1	2068.1	2028.7
7.5°	2952.3	2833.2	2578.7	2319.0	2077.1	1838.8	1662.2	1526.3	1432.7	1387.8	1346.9
10°	2838.6	2680.0	2318.4	1964.3	1635.8	1319.9	1075.9	899.3	786.4	734.4	701.3
12.5°	2736.9	2531.1	2066.9	1618.6	1206.2	836.4	588.2	447.7	377.6	353.3	341.5
15°	2646.0	2393.9	1829.2	1290.1	816.8	478.1	321.6	273.8	262.6	262.6	261.2
17.5°	2560.0	2259.4	1599.7	981.7	512.7	292.4	244.6	238.3	238.3	241.0	241.0
20°	2477.6	2131.3	1378.0	704.6	322.8	232.0	221.1	219.6	221.1	224.5	224.5
22.5°	2406.9	2014.8	1170.9	483.5	239.8	209.1	203.7	201.6	202.2	204.3	205.8
25°	2354.3	1916.5	975.6	327.7	206.4	190.5	184.4	180.8	178.1	178.1	179.4
27.5°	2321.1	1833.4	786.4	238.3	185.6	173.3	163.4	158.0	151.7	148.3	149.6
30°	2296.8	1754.3	609.0	194.7	166.3	153.8	141.4	132.4	123.3	119.1	120.6
32.5°	2287.8	1690.5	455.2	171.8	148.9	135.1	119.8	108.0	98.4	94.8	95.7
35°	2312.1	1640.0	333.3	155.2	135.1	117.7	100.5	87.3	79.7	77.6	78.2
37.5°	2375.9	1612.9	249.4	141.4	122.7	103.2	83.9	71.3	66.5	66.5	67.1
40°	2496.3	1612.3	200.3	131.7	111.6	89.4	69.2	60.2	57.5	58.9	59.6
42.5°	2672.3	1649.0	174.5	122.7	101.9	76.1	57.5	51.2	50.6	52.0	52.7
45°	2912.7	1716.1	160.7	115.0	91.5	63.8	48.5	44.3	44.3	46.4	47.2
47.5°	3207.2	1814.5	148.9	107.4	81.0	53.3	41.5	38.8	39.4	41.5	42.2
50°	3561.9	1938.7	137.2	99.0	73.4	44.3	36.1	34.0	34.6	37.3	38.2
52.5°	3965.9	2105.7	127.5	91.5	63.8	36.7	30.4	29.2	30.4	33.4	34.0
55°	4312.3	2255.2	115.8	85.2	51.2	30.4	25.0	25.0	26.4	29.8	30.4
57.5°	4645.6	2411.7	105.3	73.4	40.3	24.3	20.8	21.4	23.5	27.1	27.7
60°	5134.8	2677.1	92.9	61.7	30.4	19.3	17.4	18.0	20.8	24.3	25.0
62.5°	5965.5	3081.1	80.3	51.2	23.5	15.3	13.8	15.3	18.7	22.9	23.5
65°	6715.2	3245.4	65.9	43.0	18.0	11.7	11.7	13.8	18.0	22.2	22.9
67.5°	6297.3	2731.8	51.2	34.0	13.8	9.0	9.6	13.2	17.4	22.2	22.9
69°	5569.2	2233.8	43.6	27.1	11.7	8.4	9.0	13.2	17.4	21.4	22.2
70°	5001.8	1886.0	38.8	22.9	10.5	8.4	9.0	12.4	17.4	21.4	22.2
72.5°	3350.0	1018.4	31.3	16.6	9.6	7.6	7.6	12.4	16.6	20.8	21.4
75°	1439.7	281.3	25.0	11.7	8.4	6.9	6.9	11.7	15.9	20.1	21.4
77.5°	263.3	71.3	20.1	10.5	8.4	6.9	6.3	11.1	15.3	19.3	20.1
80°	104.7	35.2	15.9	9.0	7.6	6.3	5.5	10.5	14.5	18.7	19.3
82.5°	63.1	20.1	13.2	8.4	7.6	5.5	4.8	9.0	13.8	18.0	18.7
85°	51.2	13.8	10.5	8.4	6.9	5.5	4.2	8.4	12.4	17.4	18.0
87.5°	25.0	9.6	9.6	7.6	6.9	5.5	4.2	7.6	11.7	16.6	17.4
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)