

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: P300858

Luminaire Tested: **GLNA-AF-04-LED-E1-SL4-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300858
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-04-LED-E1-SL4-7027
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19754 lumens
Efficiency: N/A
Efficacy: 87.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G4

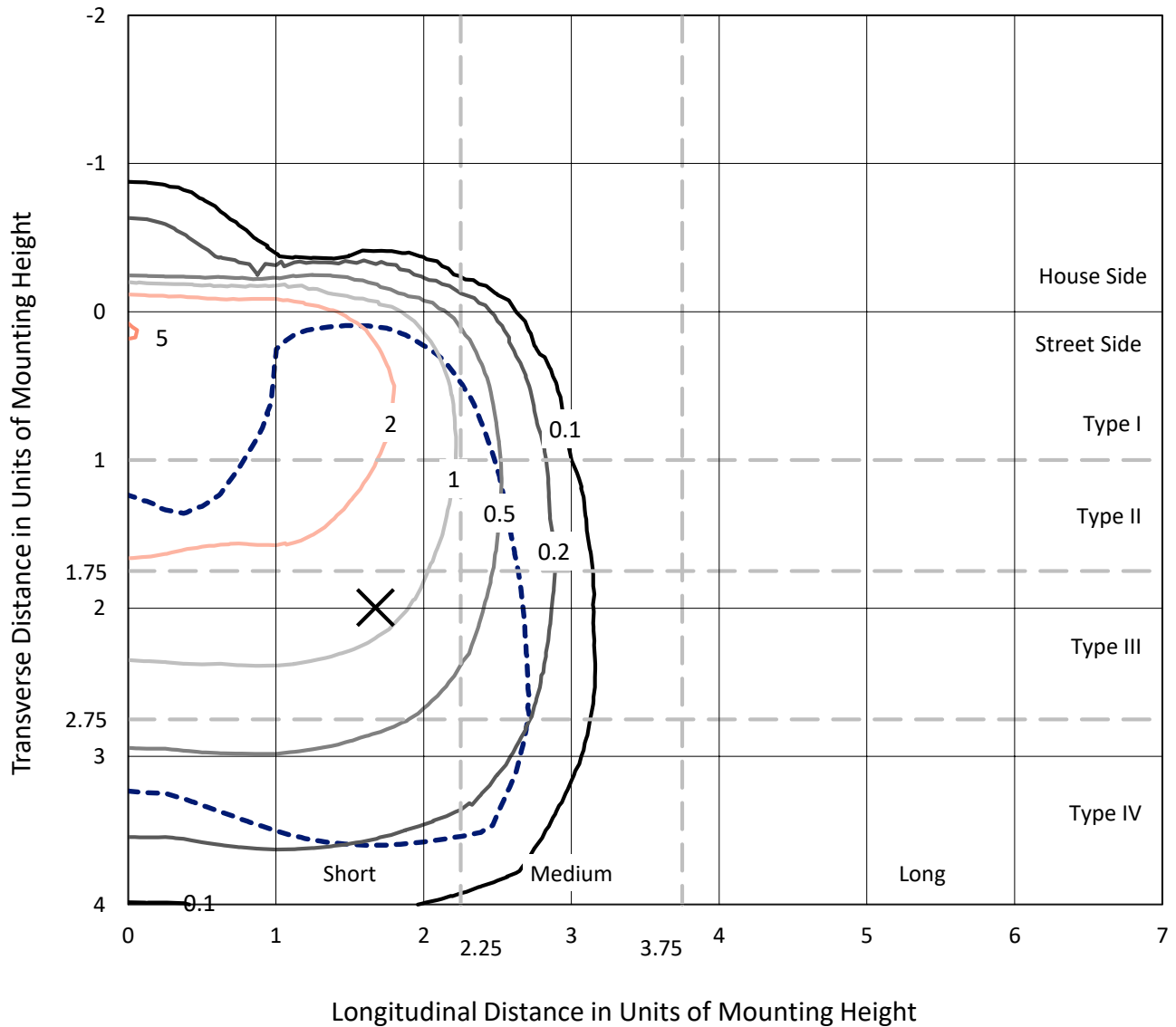
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

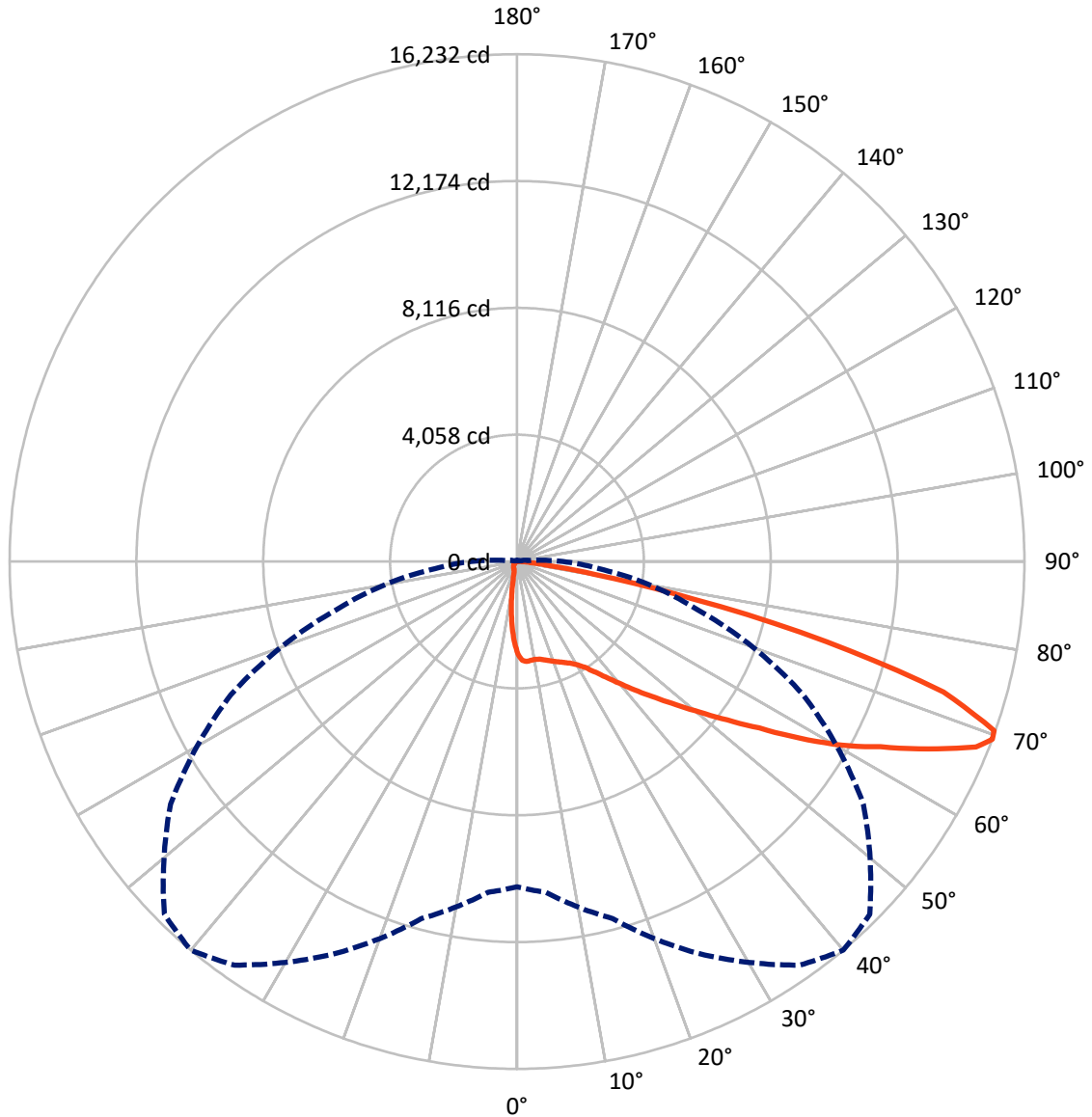
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.2 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
House Side	Lumens	1155.7	0.0	1155.7
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	18598.3	0.0	18598.3
	% Fixture	94.1	0.0	94.1
Total	Lumens	19754.0	0.0	19754.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	239.3	1.2
10°-20°	588.5	3.0
20°-30°	991.2	5.0
30°-40°	1622.6	8.2
40°-50°	2809.5	14.2
50°-60°	4425.2	22.4
60°-70°	5779.2	29.3
70°-80°	2976.5	15.1
80°-90°	322.0	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°	19754.0	100.0
0°-180°	19754.0	100.0



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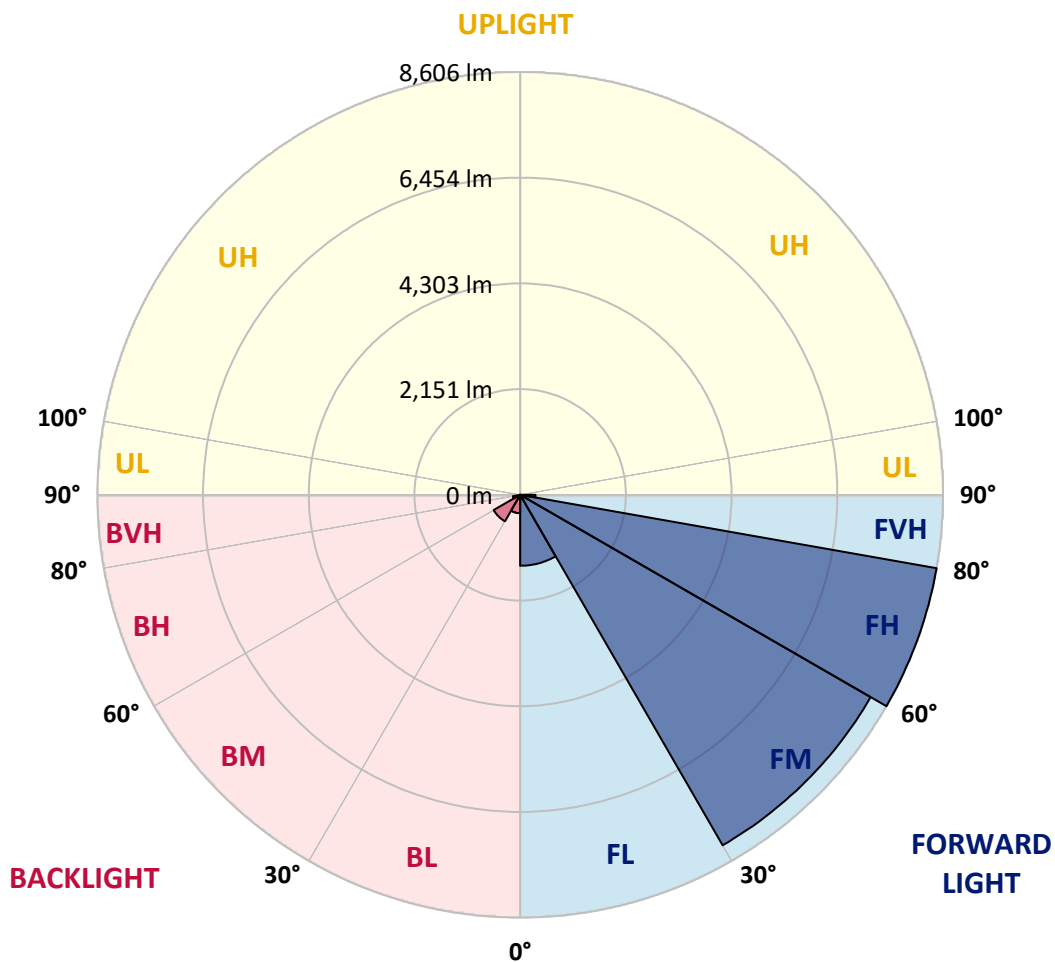
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1444.6	7.3			
FM	(30°-60°)	8236.2	41.7			
FH	(60°-80°)	8605.7	43.6			G4/12000
FVH	(80°-90°)	311.9	1.6			G3/500
BL	(0°-30°)	374.4	1.9	B1/500		
BM	(30°-60°)	621.2	3.1	B1/1000		
BH	(60°-80°)	150.1	0.8	B1/500		G1/500
BVH	(80°-90°)	10.1	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	2951.3	2951.3	2951.3	2951.3	2951.3	2951.3	2951.3	2951.3	2951.3	2951.3	2951.3
2.5°	3240.6	3223.0	3212.4	3198.3	3180.6	3165.4	3159.5	3116.0	3074.8	3018.4	2953.7
5°	3300.6	3294.7	3275.9	3257.1	3235.9	3212.4	3199.5	3147.7	3088.9	3006.6	2893.7
7.5°	3306.5	3299.4	3275.9	3250.0	3220.6	3192.4	3170.1	3118.3	3064.2	2980.7	2843.2
10°	3297.0	3288.8	3271.2	3243.0	3206.5	3179.5	3157.1	3107.7	3061.9	2986.6	2833.8
12.5°	3286.5	3278.2	3270.0	3255.9	3224.1	3205.3	3186.5	3139.5	3098.3	3034.8	2867.9
15°	3297.0	3292.3	3301.7	3295.9	3278.2	3261.8	3243.0	3200.6	3163.0	3110.1	2930.2
17.5°	3341.7	3341.7	3371.1	3374.7	3358.2	3334.7	3307.6	3265.3	3233.6	3188.9	3004.3
20°	3446.4	3442.8	3480.5	3487.5	3447.6	3411.1	3371.1	3319.4	3294.7	3266.5	3077.2
22.5°	3626.3	3609.8	3632.2	3625.1	3546.3	3489.9	3440.5	3377.0	3364.1	3351.1	3158.3
25°	3860.3	3850.9	3866.2	3796.8	3658.0	3581.6	3522.8	3451.1	3451.1	3464.0	3250.0
27.5°	4200.1	4164.8	4113.1	3990.8	3782.7	3685.1	3621.6	3545.1	3565.1	3613.3	3371.1
30°	4548.1	4509.3	4390.6	4202.4	3934.3	3832.1	3758.0	3678.0	3725.0	3813.2	3533.4
32.5°	4891.5	4848.0	4679.8	4442.3	4151.9	4049.6	3977.9	3889.7	3968.4	4116.6	3770.9
35°	5224.2	5185.4	4991.4	4711.6	4441.1	4356.5	4290.6	4214.2	4315.3	4522.3	4106.0
37.5°	5598.2	5555.8	5319.5	5016.1	4792.7	4731.6	4683.4	4606.9	4783.3	5086.7	4572.8
40°	6057.9	5986.2	5667.5	5365.3	5199.5	5170.2	5137.2	5126.6	5400.6	5820.4	5194.8
42.5°	6584.7	6467.1	6032.0	5733.4	5646.4	5667.5	5659.3	5706.3	6173.1	6732.8	5952.1
45°	7111.5	6959.8	6437.7	6126.1	6137.9	6211.9	6257.8	6445.9	7140.9	7779.3	6766.9
47.5°	7558.3	7408.9	6826.9	6550.6	6691.7	6837.5	6962.1	7318.4	8135.6	8809.4	7400.7
50°	7940.4	7799.3	7239.6	7017.4	7334.9	7570.0	7772.3	8300.2	9205.6	9593.6	7845.2
52.5°	8253.2	8159.1	7667.6	7552.4	8069.8	8414.3	8710.6	9343.2	10153.3	10231.0	8190.9
55°	8557.7	8490.7	8127.4	8188.5	8932.8	9402.0	9777.1	10449.7	10969.4	10762.4	8522.5
57.5°	8908.1	8847.0	8651.8	8995.1	10067.5	10657.8	11067.0	11430.3	11687.8	11305.7	8835.2
60°	9265.6	9230.3	9235.0	9891.1	11370.3	11937.1	12162.9	12256.9	12393.3	11817.2	8852.9
62.5°	9606.6	9673.6	9901.7	10888.2	12617.9	13053.0	13167.0	13259.9	13100.0	11898.3	8179.1
65°	10183.9	10293.3	10837.7	12222.8	13990.1	14455.7	14573.3	14254.7	13211.7	10849.4	6652.9
67.5°	10466.1	10666.0	11637.3	13466.9	15321.1	15838.5	15795.0	14319.3	11856.0	8273.2	4269.5
69°	10407.3	10620.2	11821.9	13847.8	15763.3	16232.4	15956.1	13528.0	10100.4	5993.2	2620.9
70°	10174.5	10389.7	11726.6	13833.7	15819.7	16191.3	15657.4	12550.9	8540.1	4382.3	1639.1
72.5°	8496.6	8682.4	10410.9	12503.8	14573.3	14271.1	13098.8	8695.3	4161.3	1193.5	369.2
75°	5230.1	5333.6	7470.1	9419.6	11007.0	10231.0	8727.1	4325.9	1240.5	337.5	204.6
77.5°	2763.2	2810.2	4089.6	5552.3	6977.4	5773.4	4472.9	1687.3	571.5	211.7	148.2
80°	1633.2	1668.5	2202.3	2538.6	3019.5	2522.2	1788.4	1035.9	409.2	132.9	131.7
82.5°	934.8	957.1	1596.8	1411.0	1189.9	1015.9	890.1	981.8	245.7	89.4	136.4
85°	343.3	348.0	898.3	1073.5	707.9	420.9	442.1	813.7	65.8	56.4	107.0
87.5°	159.9	156.4	462.1	657.3	413.9	266.9	344.5	178.7	25.9	36.5	29.4
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°	2951.3	2951.3	2951.3	2951.3	2951.3	2951.3	2951.3	2951.3	2951.3	2951.3	2951.3
2.5°	2916.1	2872.6	2793.8	2712.7	2630.3	2566.9	2504.5	2455.1	2438.7	2408.1	2410.5
5°	2826.7	2746.8	2582.1	2415.2	2241.1	2097.7	1962.5	1853.1	1800.2	1746.1	1746.1
7.5°	2749.1	2632.7	2375.2	2103.6	1822.5	1586.2	1373.4	1213.5	1125.3	1054.7	1053.5
10°	2719.7	2562.1	2202.3	1813.1	1421.6	1099.4	846.6	684.3	600.9	546.8	544.4
12.5°	2732.6	2537.5	2069.5	1545.0	1053.5	706.7	490.3	385.7	350.4	333.9	333.9
15°	2770.3	2530.4	1936.6	1282.8	744.3	442.1	325.7	297.5	295.1	295.1	295.1
17.5°	2816.1	2532.8	1800.2	1027.7	506.8	316.3	281.0	277.5	279.8	279.8	279.8
20°	2863.2	2533.9	1653.2	791.3	357.5	275.1	264.6	263.4	265.7	265.7	266.9
22.5°	2920.8	2539.8	1506.2	591.4	295.1	259.9	251.6	251.6	252.8	252.8	251.6
25°	2986.6	2551.6	1353.4	438.6	269.3	249.3	242.2	241.0	242.2	241.0	239.9
27.5°	3068.9	2568.0	1182.9	343.3	257.5	238.7	232.8	232.8	231.6	230.5	229.3
30°	3172.4	2586.8	991.2	291.6	245.7	229.3	223.4	222.2	221.1	218.7	218.7
32.5°	3330.0	2628.0	801.9	264.6	232.8	216.4	211.7	211.7	209.3	206.9	205.8
35°	3572.2	2709.1	632.6	248.1	218.7	202.2	196.4	196.4	194.0	192.8	191.7
37.5°	3907.3	2832.6	491.5	232.8	204.6	187.0	181.1	179.9	177.6	175.2	174.0
40°	4352.9	2985.4	386.9	218.7	190.5	171.7	167.0	164.6	159.9	156.4	156.4
42.5°	4912.6	3159.5	313.9	203.4	174.0	157.6	154.0	150.5	142.3	138.7	137.6
45°	5498.2	3315.9	265.7	185.8	157.6	143.5	141.1	135.2	124.6	121.1	121.1
47.5°	5920.3	3352.3	234.0	169.3	142.3	128.2	127.0	116.4	107.0	104.6	103.5
50°	6183.7	3280.6	208.1	152.9	128.2	114.1	110.5	97.6	91.7	89.4	88.2
52.5°	6361.3	3152.4	187.0	138.7	115.2	101.1	92.9	83.5	78.8	76.4	76.4
55°	6503.6	2971.3	165.8	125.8	104.6	90.5	78.8	71.7	67.0	64.7	64.7
57.5°	6543.5	2725.6	144.6	115.2	94.1	80.0	67.0	62.3	56.4	55.3	55.3
60°	6253.1	2282.3	128.2	102.3	84.7	69.4	58.8	52.9	47.0	45.9	44.7
62.5°	5487.6	1766.1	112.9	90.5	74.1	60.0	50.6	43.5	38.8	38.8	38.8
65°	4186.0	1184.1	98.8	78.8	64.7	50.6	43.5	35.3	32.9	32.9	34.1
67.5°	2505.7	644.4	84.7	67.0	55.3	42.3	36.5	30.6	29.4	30.6	30.6
69°	1468.6	378.6	76.4	60.0	48.2	37.6	31.7	27.0	29.4	30.6	30.6
70°	906.6	255.2	70.6	54.1	43.5	34.1	29.4	25.9	28.2	29.4	29.4
72.5°	252.8	131.7	56.4	42.3	35.3	28.2	23.5	23.5	27.0	28.2	28.2
75°	164.6	97.6	43.5	31.7	27.0	22.3	20.0	22.3	25.9	27.0	27.0
77.5°	136.4	80.0	35.3	25.9	22.3	21.2	18.8	20.0	23.5	24.7	24.7
80°	124.6	56.4	28.2	23.5	20.0	18.8	17.6	16.5	21.2	22.3	22.3
82.5°	118.8	44.7	24.7	21.2	18.8	16.5	15.3	16.5	18.8	20.0	21.2
85°	74.1	29.4	22.3	20.0	16.5	15.3	15.3	15.3	17.6	18.8	18.8
87.5°	27.0	23.5	20.0	16.5	14.1	14.1	14.1	14.1	15.3	17.6	17.6
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)