

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: P299423

Luminaire Tested: **GLNA-AF-05-LED-E1-5NQ-7050-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299423
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24141)
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-E1-5NQ-7050-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 5000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24707.1 lumens
Efficiency: N/A
Efficacy: 117.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B4 - U0 - G2

Input Watts (W): 210
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

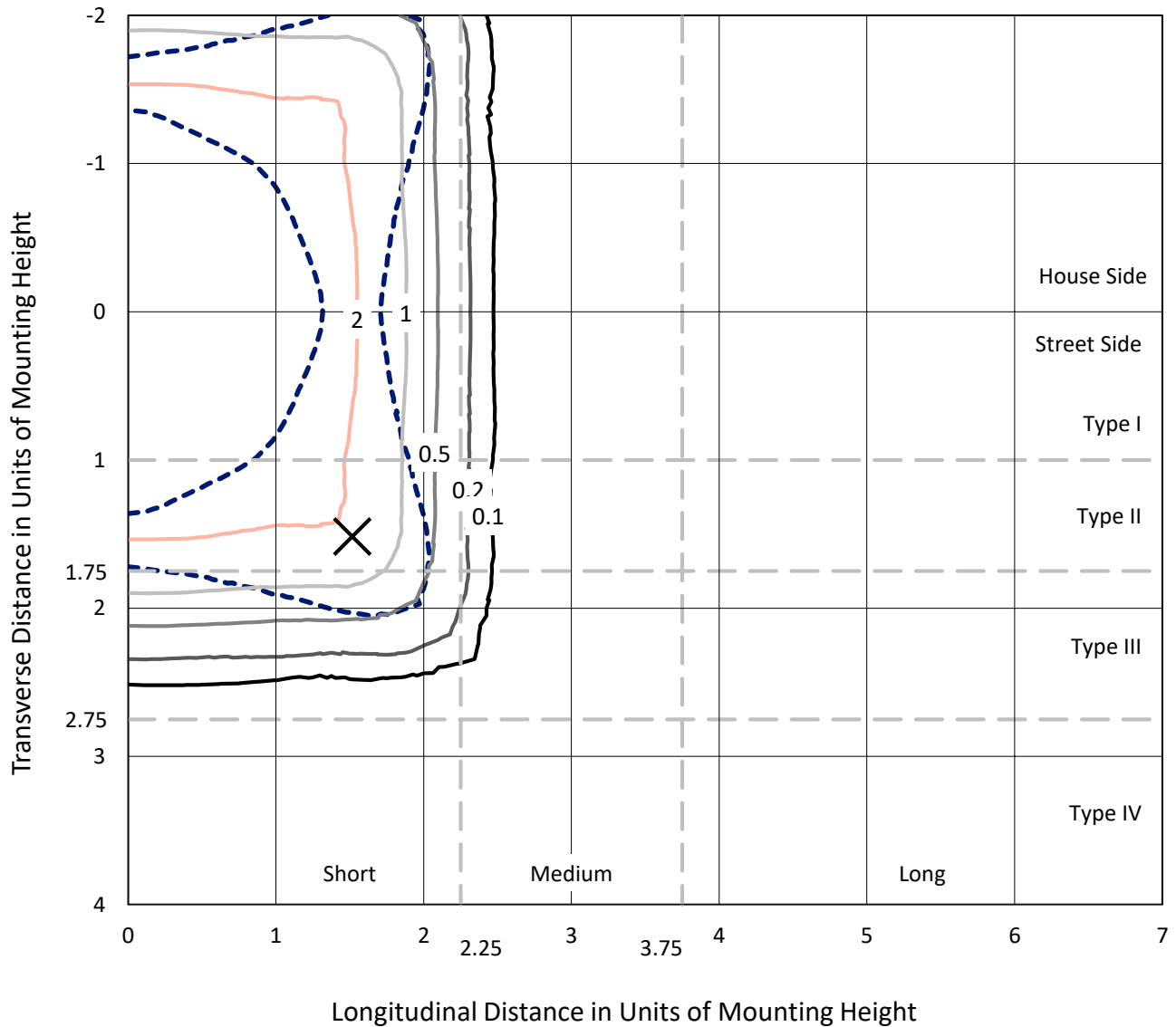


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

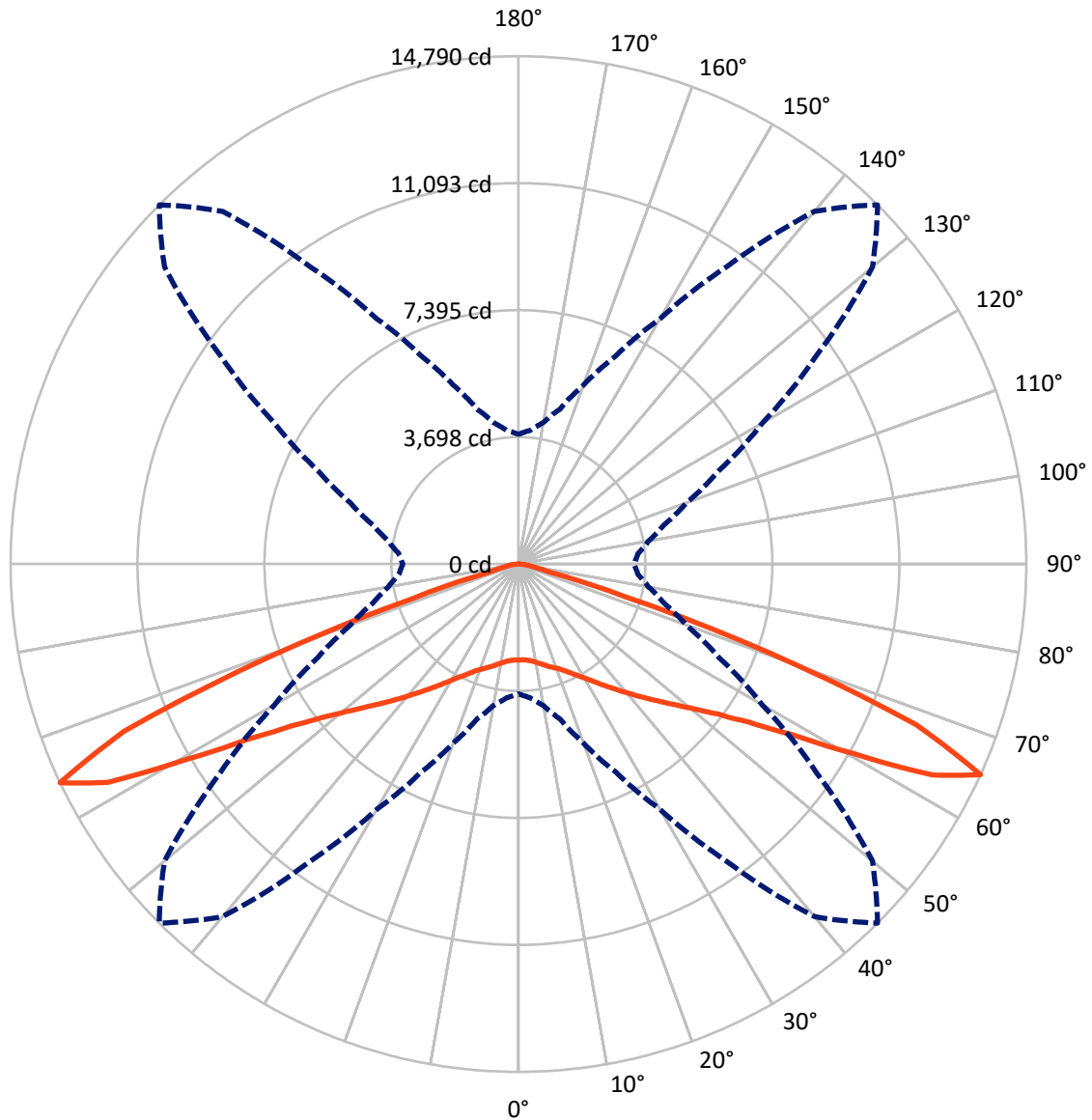


Based on 25 foot mounting height. Maximum calculated value = 4.5 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12353.6	0.0	12353.6
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	12353.6	0.0	12353.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	24707.1	0.0	24707.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	272.5	1.1
10°-20°	873.9	3.5
20°-30°	1634.0	6.6
30°-40°	2763.6	11.2
40°-50°	4518.8	18.3
50°-60°	7185.6	29.1
60°-70°	6495.3	26.3
70°-80°	822.0	3.3
80°-90°	141.4	0.6
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°	24707.1	100.0
0°-180°	24707.1	100.0



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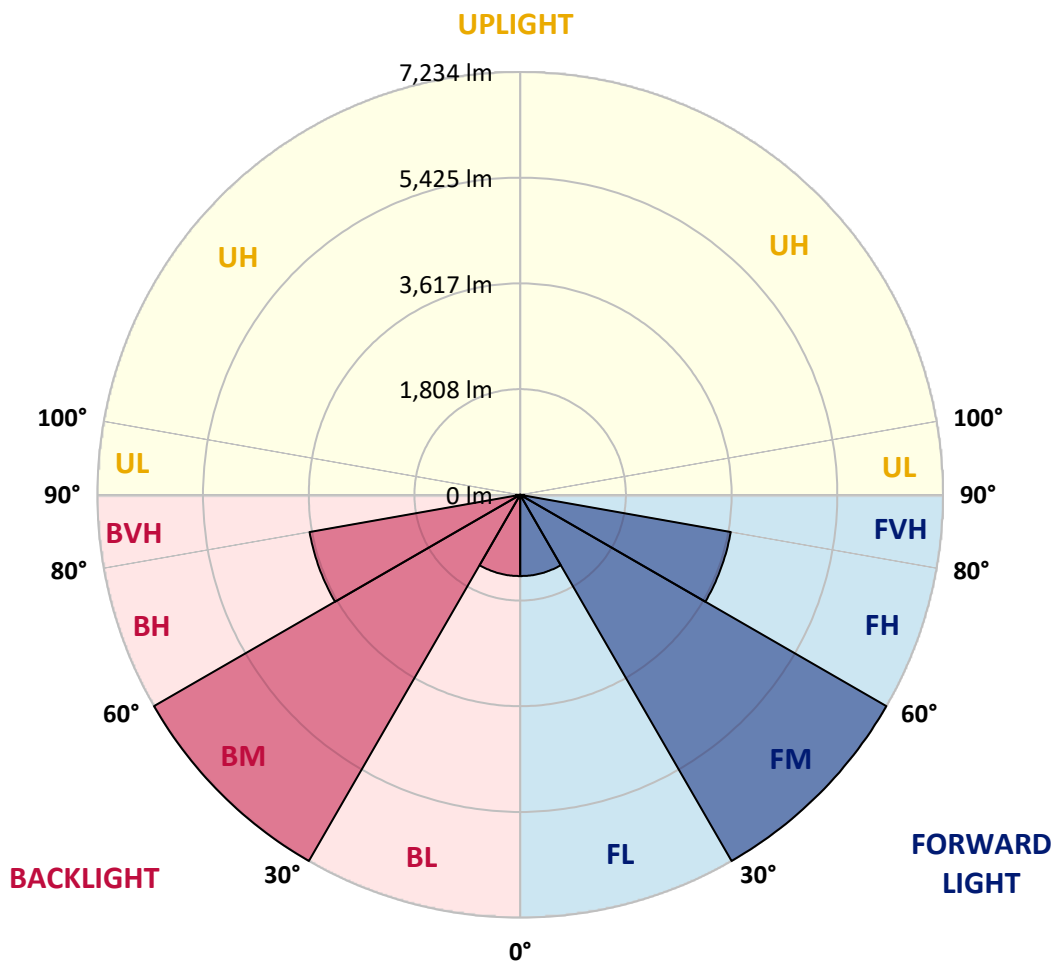
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1390.2	5.6			
FM	(30°-60°)	7234.0	29.3			
FH	(60°-80°)	3658.7	14.8			G2/5000
FVH	(80°-90°)	70.7	0.3			G1/100
BL	(0°-30°)	1390.2	5.6	B3/2500		
BM	(30°-60°)	7234.0	29.3	B4/8500		
BH	(60°-80°)	3658.7	14.8	B4/5000		G2/5000
BVH	(80°-90°)	70.7	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2795.6	2795.6	2795.6	2795.6	2795.6	2795.6	2795.6	2795.6	2795.6	2795.6	2795.6
2.5°	2797.9	2800.3	2802.6	2800.3	2802.6	2799.1	2796.8	2800.3	2796.8	2793.3	2795.6
5°	2822.2	2823.4	2823.4	2819.9	2823.4	2821.1	2817.6	2822.2	2818.8	2815.3	2817.6
7.5°	2862.7	2867.4	2863.9	2860.4	2862.7	2860.4	2858.1	2859.3	2858.1	2854.6	2855.8
10°	2917.1	2920.6	2918.3	2917.1	2919.4	2918.3	2916.0	2914.8	2916.0	2912.5	2912.5
12.5°	2983.1	2981.9	2980.8	2981.9	2985.4	2985.4	2984.2	2985.4	2987.7	2988.9	2986.6
15°	3047.9	3050.2	3050.2	3050.2	3057.1	3062.9	3066.4	3068.7	3073.3	3074.5	3069.9
17.5°	3128.9	3128.9	3127.7	3128.9	3135.8	3145.1	3148.5	3153.2	3157.8	3161.3	3155.5
20°	3219.1	3221.4	3221.4	3223.8	3233.0	3243.4	3243.4	3245.7	3243.4	3245.7	3242.3
22.5°	3329.1	3336.0	3336.0	3337.2	3346.4	3359.1	3355.7	3359.1	3353.4	3358.0	3353.4
25°	3472.5	3483.0	3480.6	3480.6	3487.6	3495.7	3496.8	3503.8	3502.6	3508.4	3504.9
27.5°	3634.5	3650.7	3655.4	3654.2	3658.8	3666.9	3669.3	3677.4	3672.7	3677.4	3675.0
30°	3828.9	3835.9	3845.1	3848.6	3854.4	3862.5	3862.5	3863.7	3857.9	3864.8	3868.3
32.5°	4030.3	4043.0	4052.3	4073.1	4083.5	4089.3	4088.1	4090.5	4084.7	4093.9	4100.9
35°	4296.4	4305.7	4320.7	4336.9	4350.8	4349.7	4346.2	4347.3	4347.3	4355.4	4362.4
37.5°	4616.9	4619.3	4638.9	4662.1	4669.0	4662.1	4641.2	4636.6	4626.2	4636.6	4648.2
40°	4956.0	4964.1	5003.4	5018.5	5021.9	5009.2	4979.1	4961.8	4938.6	4951.4	4967.6
42.5°	5311.2	5327.4	5363.3	5389.9	5401.5	5393.4	5351.7	5325.1	5295.0	5302.0	5318.2
45°	5704.6	5724.3	5775.2	5800.7	5822.7	5809.9	5769.4	5728.9	5681.5	5685.0	5710.4
47.5°	6144.4	6164.0	6230.0	6272.8	6284.4	6282.1	6236.9	6181.4	6116.6	6114.3	6136.3
50°	6637.3	6657.0	6739.1	6805.1	6838.6	6835.2	6781.9	6703.3	6624.6	6625.7	6653.5
52.5°	7118.7	7143.0	7228.6	7342.0	7407.9	7455.4	7423.0	7348.9	7252.9	7255.2	7280.7
55°	7569.9	7610.4	7708.8	7862.7	7985.4	8118.4	8156.6	8154.3	8096.4	8112.6	8138.1
57.5°	7788.6	7848.8	8000.4	8243.4	8493.3	8764.1	8993.2	9164.5	9237.4	9347.3	9321.8
60°	7374.4	7470.4	7693.8	8051.3	8545.4	9110.1	9715.3	10306.6	10811.1	11191.8	10973.1
62.5°	6037.9	6162.9	6433.6	6891.9	7639.4	8543.1	9701.4	11099.2	12622.0	13540.7	12884.6
65°	3778.0	3907.6	4183.0	4673.6	5548.4	6672.0	8243.4	10560.0	13405.3	14790.4	13455.1
67.5°	1473.0	1543.6	1692.9	2006.5	2663.7	3663.5	5240.6	7869.6	11272.8	12486.6	11063.3
70°	738.2	745.2	773.0	830.8	972.0	1262.4	1920.8	3648.4	6464.9	7808.3	6232.3
72.5°	533.4	534.6	548.5	573.9	619.1	683.9	808.8	1116.6	2102.5	3213.3	1970.6
75°	408.5	413.1	421.2	435.1	459.4	491.8	536.9	643.4	797.3	924.5	777.6
77.5°	314.7	324.0	329.8	342.5	357.6	379.5	392.3	432.8	503.4	530.0	521.9
80°	239.5	247.6	260.4	270.8	281.2	291.6	287.0	305.5	342.5	364.5	352.9
82.5°	152.7	162.0	199.0	208.3	212.9	219.9	211.8	212.9	229.1	243.0	229.1
85°	98.4	104.1	126.1	137.7	138.9	143.5	140.0	131.9	131.9	120.3	135.4
87.5°	45.1	46.3	56.7	67.1	69.4	62.5	61.3	59.0	47.4	45.1	48.6
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2795.6	2795.6	2795.6	2795.6	2795.6	2795.6	2795.6	2795.6
2.5°	2794.5	2796.8	2797.9	2801.4	2802.6	2802.6	2803.7	2806.0
5°	2816.5	2819.9	2821.1	2825.7	2826.9	2825.7	2828.0	2829.2
7.5°	2855.8	2861.6	2863.9	2868.5	2865.1	2869.7	2870.8	2870.8
10°	2913.7	2919.4	2920.6	2925.2	2922.9	2925.2	2925.2	2922.9
12.5°	2990.0	2991.2	2987.7	2991.2	2986.6	2988.9	2985.4	2983.1
15°	3074.5	3071.0	3062.9	3062.9	3056.0	3057.1	3056.0	3054.8
17.5°	3156.6	3149.7	3143.9	3141.6	3135.8	3134.7	3131.2	3131.2
20°	3246.9	3243.4	3240.0	3235.3	3229.5	3223.8	3222.6	3224.9
22.5°	3355.7	3354.5	3354.5	3352.2	3344.1	3338.3	3334.8	3334.8
25°	3501.5	3491.1	3491.1	3489.9	3486.4	3483.0	3476.0	3479.5
27.5°	3665.8	3660.0	3664.6	3663.5	3660.0	3660.0	3655.4	3655.4
30°	3868.3	3866.0	3872.9	3867.1	3855.6	3854.4	3849.8	3844.0
32.5°	4102.0	4099.7	4110.1	4103.2	4084.7	4074.3	4065.0	4060.4
35°	4362.4	4363.5	4376.3	4371.6	4350.8	4343.9	4327.7	4325.4
37.5°	4647.0	4665.5	4687.5	4692.2	4674.8	4670.2	4652.8	4643.6
40°	4981.4	5005.7	5039.3	5047.4	5028.9	5025.4	5001.1	4988.4
42.5°	5337.8	5379.5	5421.2	5428.1	5409.6	5391.1	5367.9	5358.7
45°	5735.9	5785.6	5840.0	5853.9	5826.1	5804.2	5774.1	5774.1
47.5°	6182.5	6245.0	6306.4	6344.5	6319.1	6295.9	6260.1	6236.9
50°	6710.2	6795.8	6875.7	6915.0	6874.5	6830.5	6768.1	6747.2
52.5°	7372.1	7464.6	7534.1	7513.2	7450.8	7389.4	7321.2	7293.4
55°	8216.8	8248.0	8248.0	8169.3	8044.4	7941.4	7833.8	7797.9
57.5°	9273.2	9152.9	8967.8	8732.9	8437.8	8180.9	8007.3	7925.2
60°	10514.8	9936.3	9282.5	8640.3	8112.6	7677.6	7419.5	7301.5
62.5°	11342.2	9828.7	8518.8	7487.8	6728.7	6204.5	5848.1	5709.3
65°	10600.5	8197.1	6442.9	5209.4	4382.0	3848.6	3495.7	3366.1
67.5°	7764.3	5136.5	3430.9	2458.9	1801.7	1437.2	1292.5	1232.3
70°	3485.3	1808.6	1108.5	865.5	746.3	685.0	658.4	649.1
72.5°	1050.7	760.2	641.0	578.6	531.1	501.0	479.1	476.7
75°	634.1	527.7	468.6	431.6	401.5	377.2	365.7	362.2
77.5°	443.2	387.6	359.9	333.3	310.1	291.6	281.2	273.1
80°	311.3	284.7	271.9	256.9	241.8	224.5	209.4	202.5
82.5°	208.3	202.5	202.5	193.2	180.5	164.3	134.2	127.3
85°	134.2	133.1	135.4	131.9	122.7	105.3	86.8	82.2
87.5°	62.5	63.6	70.6	69.4	67.1	55.5	44.0	41.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)