

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: P299479

Luminaire Tested: **GLNA-AF-05-LED-E1-5NQ-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299479
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-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17504.3 lumens
Efficiency: N/A
Efficacy: 108.1 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): 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

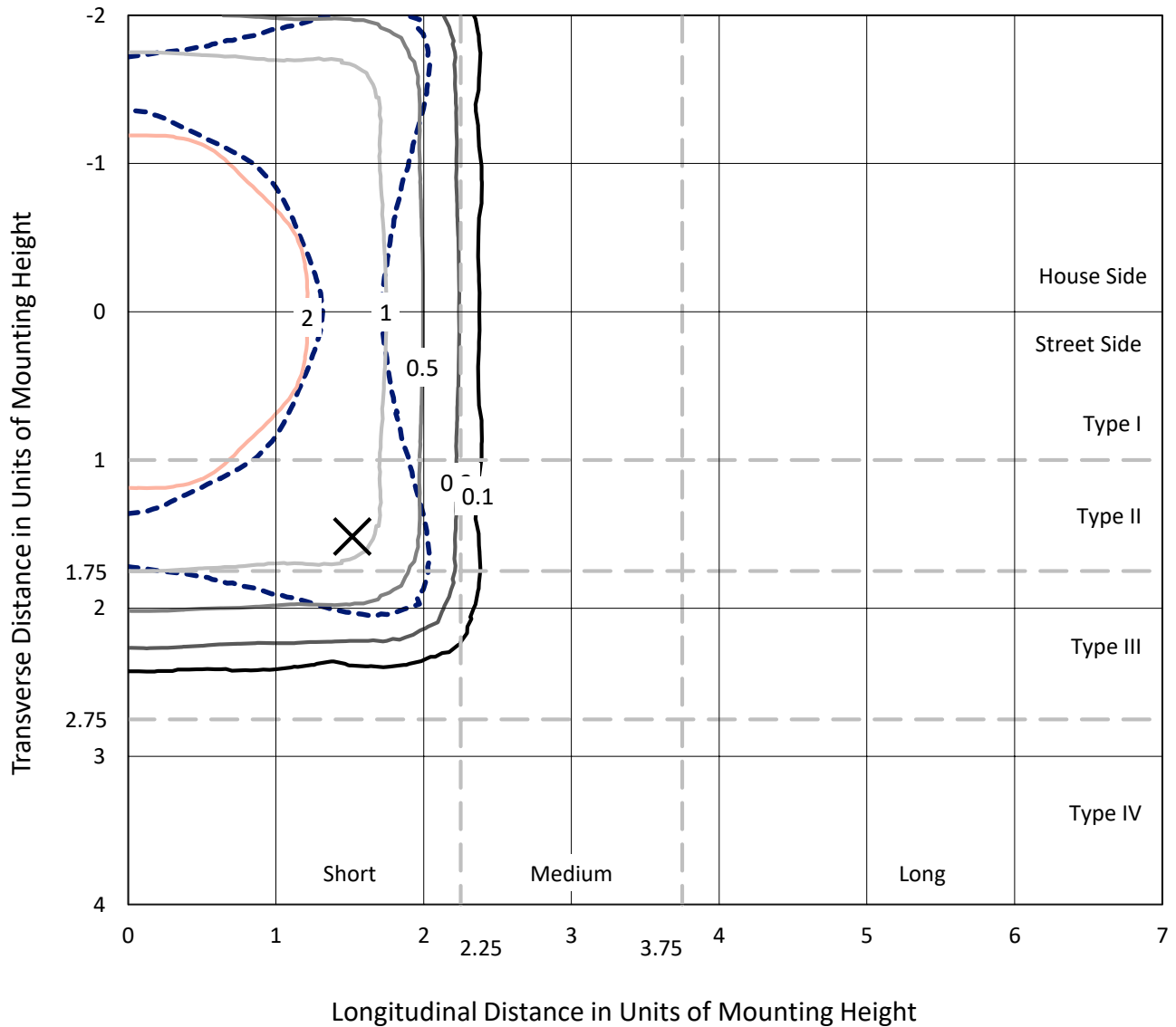


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

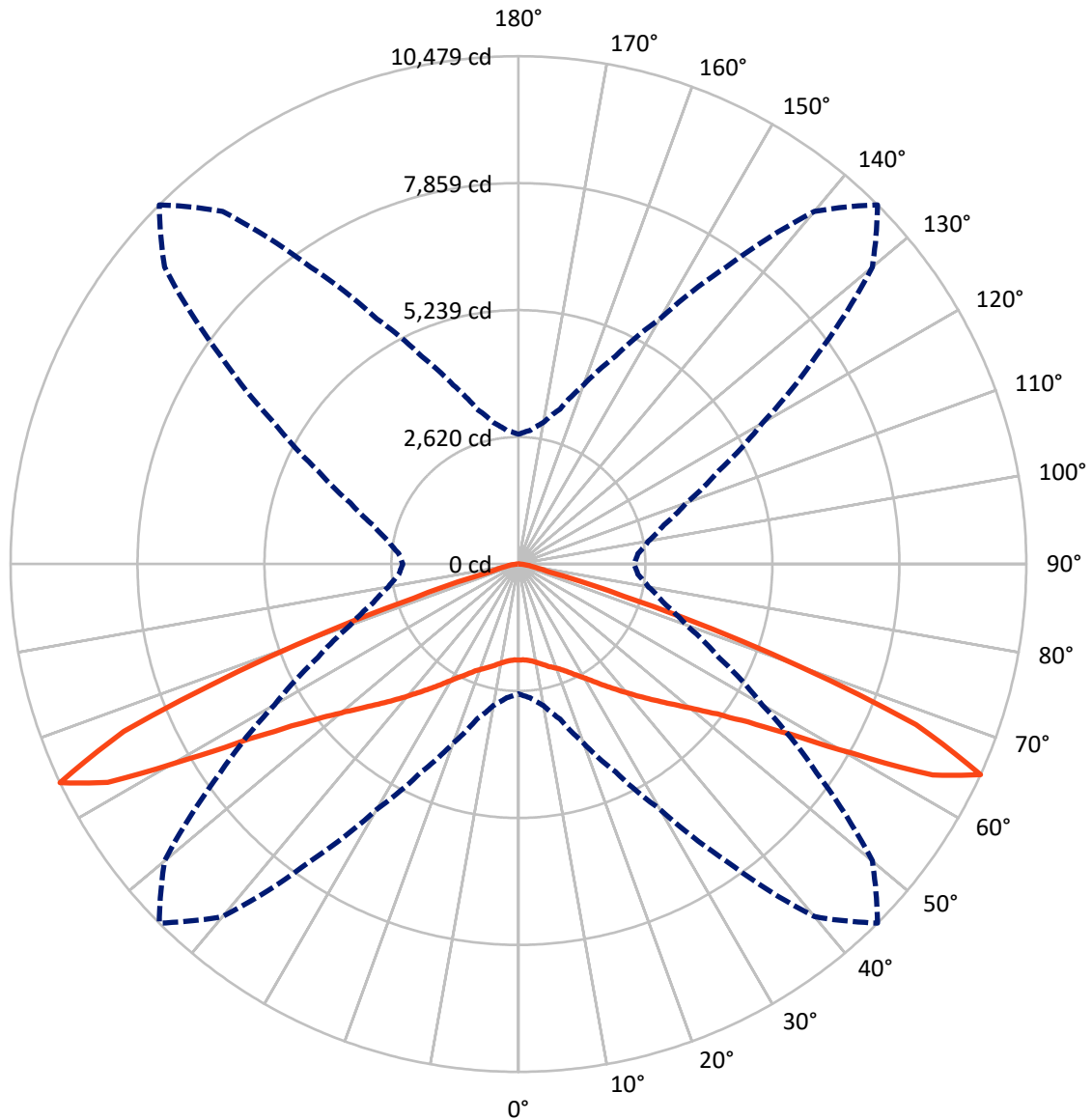


Based on 25 foot mounting height. Maximum calculated value = 3.2 fc
 Type V - Short - Full Cutoff

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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	8752.1	0.0	8752.1
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	8752.1	0.0	8752.1
	% Fixture	50.0	0.0	50.0
Total	Lumens	17504.3	0.0	17504.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	193.0	1.1
10°-20°	619.1	3.5
20°-30°	1157.7	6.6
30°-40°	1957.9	11.2
40°-50°	3201.4	18.3
50°-60°	5090.8	29.1
60°-70°	4601.7	26.3
70°-80°	582.4	3.3
80°-90°	100.2	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°	17504.3	100.0
0°-180°	17504.3	100.0

Coefficient of Utilization



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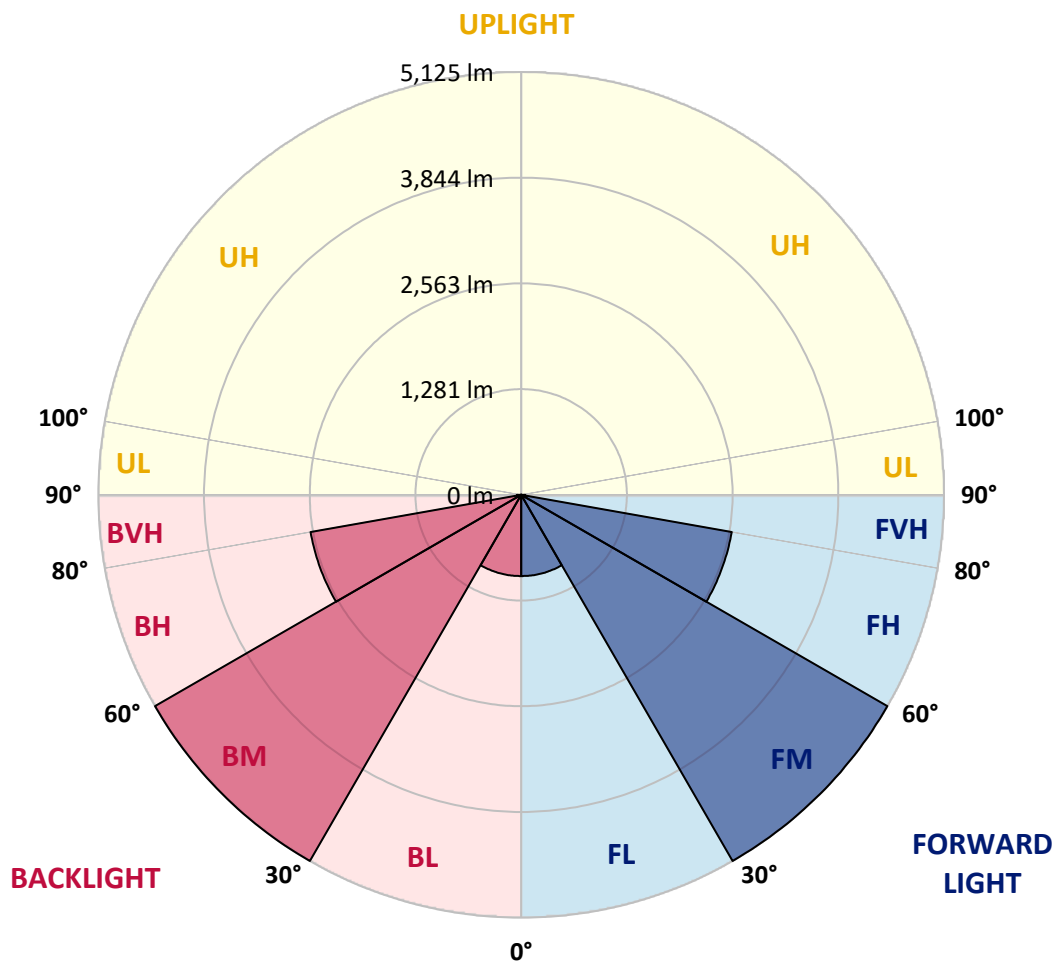
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	984.9	5.6			
FM (30°-60°)	5125.1	29.3			
FH (60°-80°)	2592.1	14.8			G2/5000
FVH (80°-90°)	50.1	0.3			G1/100
BL (0°-30°)	984.9	5.6	B2/1000		
BM (30°-60°)	5125.1	29.3	B4/8500		
BH (60°-80°)	2592.1	14.8	B4/5000		G2/5000
BVH (80°-90°)	50.1	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°	1980.6	1980.6	1980.6	1980.6	1980.6	1980.6	1980.6	1980.6	1980.6	1980.6	1980.6
2.5°	1982.3	1983.9	1985.5	1983.9	1985.5	1983.1	1981.4	1983.9	1981.4	1979.0	1980.6
5°	1999.5	2000.3	2000.3	1997.8	2000.3	1998.7	1996.2	1999.5	1997.0	1994.6	1996.2
7.5°	2028.2	2031.4	2029.0	2026.5	2028.2	2026.5	2024.9	2025.7	2024.9	2022.4	2023.2
10°	2066.7	2069.2	2067.5	2066.7	2068.3	2067.5	2065.9	2065.1	2065.9	2063.4	2063.4
12.5°	2113.4	2112.6	2111.8	2112.6	2115.1	2115.1	2114.2	2115.1	2116.7	2117.5	2115.9
15°	2159.3	2161.0	2161.0	2161.0	2165.9	2170.0	2172.4	2174.1	2177.4	2178.2	2174.9
17.5°	2216.7	2216.7	2215.9	2216.7	2221.6	2228.2	2230.7	2233.9	2237.2	2239.7	2235.6
20°	2280.7	2282.3	2282.3	2283.9	2290.5	2297.9	2297.9	2299.5	2297.9	2299.5	2297.1
22.5°	2358.5	2363.5	2363.5	2364.3	2370.8	2379.9	2377.4	2379.9	2375.8	2379.0	2375.8
25°	2460.2	2467.6	2465.9	2465.9	2470.9	2476.6	2477.4	2482.3	2481.5	2485.6	2483.1
27.5°	2575.0	2586.4	2589.7	2588.9	2592.2	2597.9	2599.6	2605.3	2602.0	2605.3	2603.7
30°	2712.7	2717.6	2724.2	2726.6	2730.7	2736.5	2736.5	2737.3	2733.2	2738.1	2740.6
32.5°	2855.3	2864.4	2870.9	2885.7	2893.0	2897.1	2896.3	2898.0	2893.9	2900.4	2905.3
35°	3043.9	3050.4	3061.1	3072.6	3082.4	3081.6	3079.1	3080.0	3080.0	3085.7	3090.6
37.5°	3271.0	3272.6	3286.5	3302.9	3307.9	3302.9	3288.2	3284.9	3277.5	3284.9	3293.1
40°	3511.2	3516.9	3544.8	3555.4	3557.9	3548.9	3527.6	3515.3	3498.9	3507.9	3519.4
42.5°	3762.8	3774.3	3799.7	3818.6	3826.8	3821.0	3791.5	3772.7	3751.4	3756.3	3767.8
45°	4041.6	4055.5	4091.6	4109.6	4125.2	4116.2	4087.5	4058.8	4025.2	4027.6	4045.7
47.5°	4353.1	4367.0	4413.8	4444.1	4452.3	4450.7	4418.7	4379.3	4333.4	4331.8	4347.4
50°	4702.3	4716.3	4774.5	4821.2	4845.0	4842.5	4804.8	4749.1	4693.3	4694.1	4713.8
52.5°	5043.4	5060.6	5121.2	5201.6	5248.3	5281.9	5259.0	5206.5	5138.5	5140.1	5158.1
55°	5363.1	5391.8	5461.5	5570.5	5657.4	5751.7	5778.7	5777.1	5736.1	5747.6	5765.6
57.5°	5518.0	5560.6	5668.0	5840.2	6017.3	6209.1	6371.4	6492.8	6544.4	6622.3	6604.2
60°	5224.5	5292.6	5450.8	5704.1	6054.2	6454.2	6883.0	7301.9	7659.3	7929.0	7774.1
62.5°	4277.7	4366.2	4558.0	4882.7	5412.3	6052.5	6873.1	7863.4	8942.3	9593.2	9128.4
65°	2676.6	2768.4	2963.5	3311.1	3930.9	4726.9	5840.2	7481.4	9497.3	10478.6	9532.5
67.5°	1043.6	1093.6	1199.4	1421.5	1887.2	2595.5	3712.8	5575.4	7986.4	8846.4	7838.0
70°	523.0	527.9	547.6	588.6	688.6	894.4	1360.9	2584.8	4580.2	5532.0	4415.4
72.5°	377.9	378.7	388.6	406.6	438.6	484.5	573.0	791.1	1489.6	2276.6	1396.1
75°	289.4	292.7	298.4	308.2	325.5	348.4	380.4	455.8	564.8	655.0	550.9
77.5°	223.0	229.5	233.6	242.7	253.3	268.9	277.9	306.6	356.6	375.5	369.7
80°	169.7	175.4	184.5	191.8	199.2	206.6	203.3	216.4	242.7	258.2	250.0
82.5°	108.2	114.8	141.0	147.6	150.8	155.8	150.0	150.8	162.3	172.2	162.3
85°	69.7	73.8	89.4	97.6	98.4	101.7	99.2	93.5	93.5	85.3	95.9
87.5°	32.0	32.8	40.2	47.5	49.2	44.3	43.4	41.8	33.6	32.0	34.4
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1980.6	1980.6	1980.6	1980.6	1980.6	1980.6	1980.6	1980.6
2.5°	1979.8	1981.4	1982.3	1984.7	1985.5	1985.5	1986.4	1988.0
5°	1995.4	1997.8	1998.7	2001.9	2002.8	2001.9	2003.6	2004.4
7.5°	2023.2	2027.3	2029.0	2032.3	2029.8	2033.1	2033.9	2033.9
10°	2064.2	2068.3	2069.2	2072.4	2070.8	2072.4	2072.4	2070.8
12.5°	2118.3	2119.2	2116.7	2119.2	2115.9	2117.5	2115.1	2113.4
15°	2178.2	2175.7	2170.0	2170.0	2165.1	2165.9	2165.1	2164.3
17.5°	2236.4	2231.5	2227.4	2225.7	2221.6	2220.8	2218.4	2218.4
20°	2300.3	2297.9	2295.4	2292.1	2288.0	2283.9	2283.1	2284.8
22.5°	2377.4	2376.6	2376.6	2374.9	2369.2	2365.1	2362.6	2362.6
25°	2480.7	2473.3	2473.3	2472.5	2470.0	2467.6	2462.7	2465.1
27.5°	2597.1	2593.0	2596.3	2595.5	2593.0	2593.0	2589.7	2589.7
30°	2740.6	2738.9	2743.8	2739.7	2731.5	2730.7	2727.4	2723.3
32.5°	2906.2	2904.5	2911.9	2907.0	2893.9	2886.5	2879.9	2876.6
35°	3090.6	3091.4	3100.5	3097.2	3082.4	3077.5	3066.0	3064.4
37.5°	3292.3	3305.4	3321.0	3324.3	3312.0	3308.7	3296.4	3289.8
40°	3529.2	3546.4	3570.2	3575.9	3562.8	3560.4	3543.1	3534.1
42.5°	3781.7	3811.2	3840.7	3845.6	3832.5	3819.4	3803.0	3796.5
45°	4063.7	4099.0	4137.5	4147.3	4127.7	4112.1	4090.8	4090.8
47.5°	4380.1	4424.4	4467.9	4494.9	4476.9	4460.5	4435.1	4418.7
50°	4754.0	4814.6	4871.2	4899.1	4870.4	4839.2	4795.0	4780.2
52.5°	5222.9	5288.5	5337.7	5322.9	5278.6	5235.2	5186.8	5167.1
55°	5821.3	5843.5	5843.5	5787.7	5699.2	5626.2	5550.0	5524.6
57.5°	6569.8	6484.6	6353.4	6187.0	5977.9	5795.9	5673.0	5614.8
60°	7449.4	7039.6	6576.4	6121.4	5747.6	5439.3	5256.5	5172.9
62.5°	8035.6	6963.3	6035.3	5304.9	4767.1	4395.7	4143.2	4044.9
65°	7510.1	5807.4	4564.6	3690.7	3104.6	2726.6	2476.6	2384.8
67.5°	5500.8	3639.1	2430.7	1742.1	1276.4	1018.2	915.7	873.1
70°	2469.2	1281.3	785.4	613.2	528.8	485.3	466.5	459.9
72.5°	744.4	538.6	454.2	409.9	376.3	355.0	339.4	337.8
75°	449.2	373.8	332.0	305.8	284.5	267.3	259.1	256.6
77.5°	314.0	274.6	255.0	236.1	219.7	206.6	199.2	193.5
80°	220.5	201.7	192.7	182.0	171.3	159.0	148.4	143.5
82.5°	147.6	143.5	143.5	136.9	127.9	116.4	95.1	90.2
85°	95.1	94.3	95.9	93.5	86.9	74.6	61.5	58.2
87.5°	44.3	45.1	50.0	49.2	47.5	39.4	31.2	29.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)