

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: P299974

Luminaire Tested: **GLNA-AF-07-LED-E1-5WQ-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299974
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24143)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-07-LED-E1-5WQ-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29112.6 lumens
Efficiency: N/A
Efficacy: 128.8 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B5 - U0 - G4

Input Watts (W): 226
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

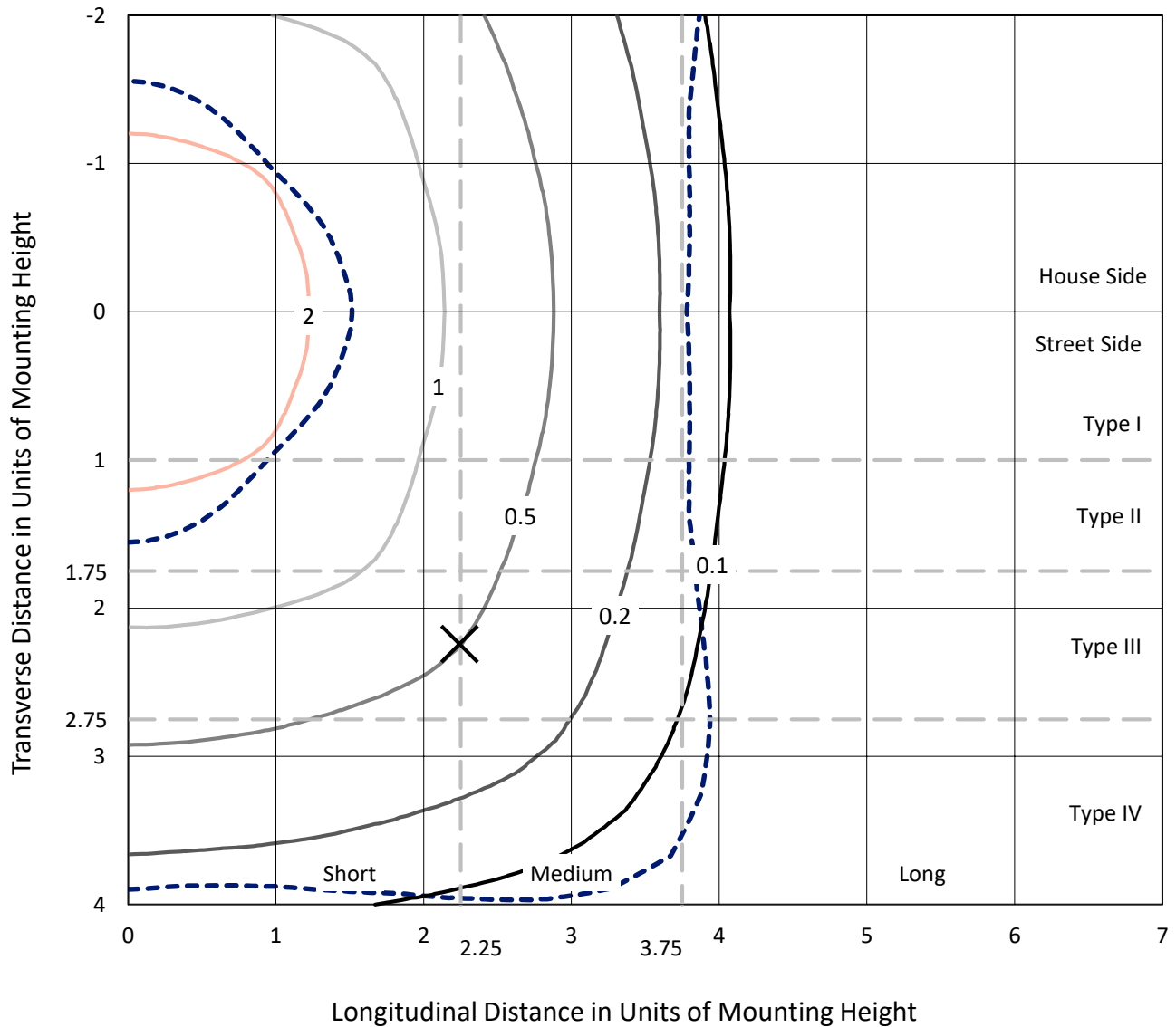


REPORT NUMBER: P299974

CATALOG NUMBER: GLNA-AF-07-LED-E1-5WQ-600

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

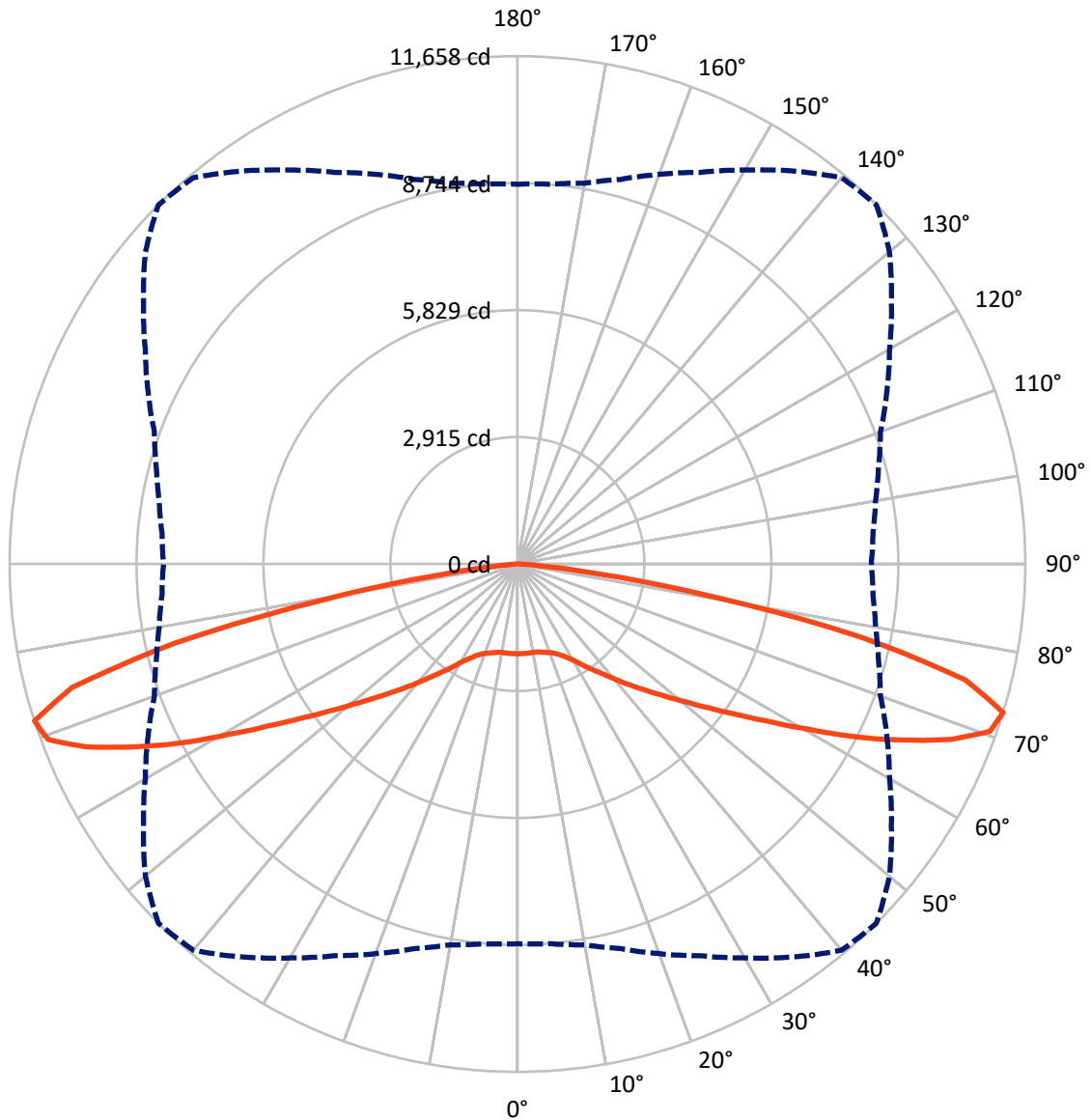


Based on 25 foot mounting height. Maximum calculated value = 3.3 fc
 Type V - Short - Semi-Cutoff

REPORT NUMBER: P299974

CATALOG NUMBER: GLNA-AF-07-LED-E1-5WQ-600

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

REPORT NUMBER: P299974

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	14556.3	0.0	14556.3
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	14556.3	0.0	14556.3
	% Fixture	50.0	0.0	50.0
Total	Lumens	29112.6	0.0	29112.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	196.9	0.7
10°-20°	597.9	2.1
20°-30°	1092.6	3.8
30°-40°	1883.8	6.5
40°-50°	3220.4	11.1
50°-60°	5219.8	17.9
60°-70°	8659.4	29.7
70°-80°	7626.9	26.2
80°-90°	614.9	2.1
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°	29112.6	100.0
0°-180°	29112.6	100.0



REPORT NUMBER: P299974

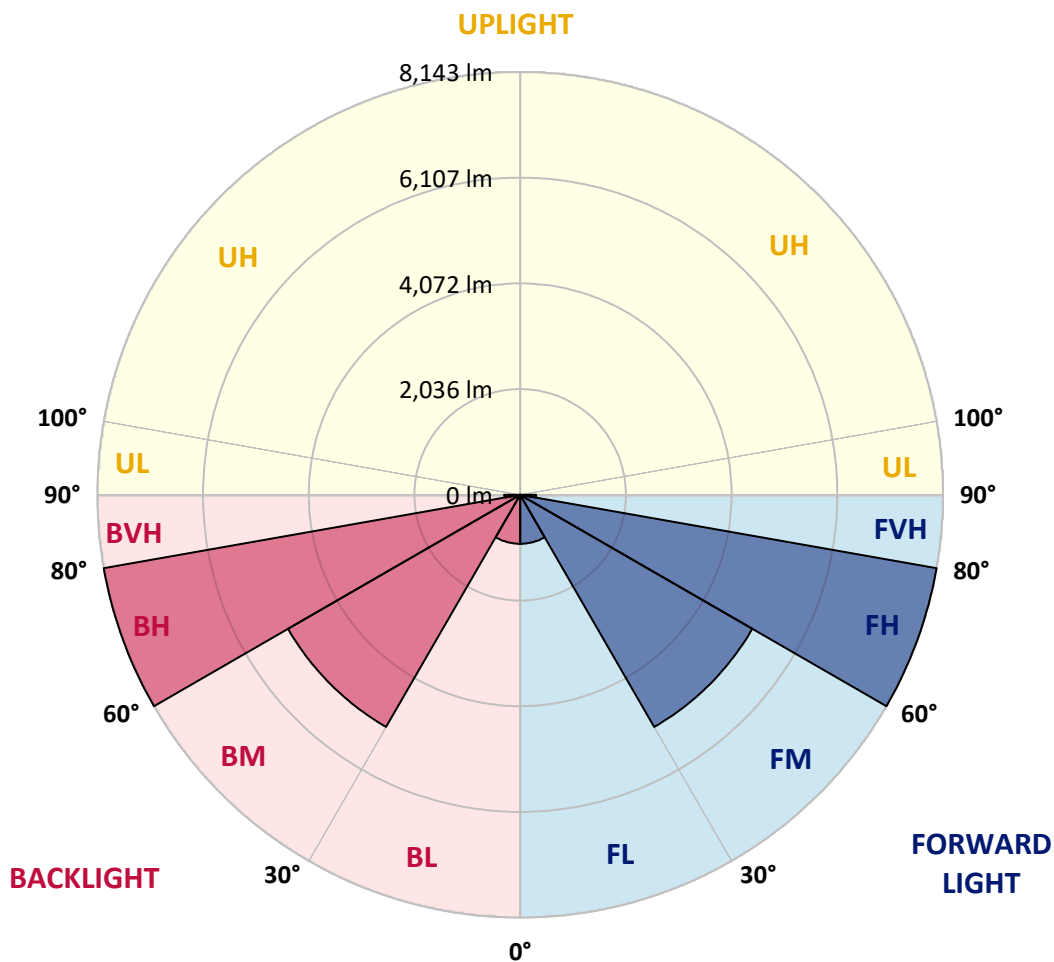
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	943.7	3.2			
FM	(30°-60°)	5162.0	17.7			
FH	(60°-80°)	8143.2	28.0			G4/12000
FVH	(80°-90°)	307.5	1.1			G3/500
BL	(0°-30°)	943.7	3.2	B2/1000		
BM	(30°-60°)	5162.0	17.7	B4/8500		
BH	(60°-80°)	8143.2	28.0	B5		G4/12000
BVH	(80°-90°)	307.5	1.1			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G4

Type V Short





REPORT NUMBER: P299974

CATALOG NUMBER: GLNA-AF-07-LED-E1-5WQ-600

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2061.6	2061.6	2061.6	2061.6	2061.6	2061.6	2061.6	2061.6	2061.6	2061.6	2061.6
2.5°	2061.6	2063.0	2064.3	2063.0	2063.0	2061.6	2060.3	2061.6	2060.3	2057.6	2059.0
5°	2068.3	2071.0	2071.0	2068.3	2069.6	2068.3	2065.6	2067.0	2064.3	2060.3	2060.3
7.5°	2076.3	2077.6	2077.6	2075.0	2076.3	2073.6	2071.0	2069.6	2067.0	2061.6	2057.6
10°	2088.3	2089.7	2088.3	2085.7	2085.7	2081.7	2075.0	2072.3	2067.0	2059.0	2054.9
12.5°	2101.7	2103.0	2101.7	2099.0	2097.7	2091.0	2085.7	2081.7	2077.6	2071.0	2064.3
15°	2120.4	2123.0	2120.4	2115.0	2111.0	2105.7	2103.0	2104.4	2105.7	2100.3	2093.7
17.5°	2155.1	2156.4	2152.4	2140.4	2135.1	2129.7	2129.7	2132.4	2136.4	2133.7	2127.0
20°	2219.2	2215.2	2205.8	2191.1	2184.5	2175.1	2173.8	2175.1	2175.1	2173.8	2168.4
22.5°	2299.3	2296.6	2284.6	2265.9	2256.6	2251.2	2243.2	2236.5	2235.2	2231.2	2225.9
25°	2395.4	2394.1	2379.4	2363.4	2356.7	2350.0	2343.4	2334.0	2326.0	2316.7	2311.3
27.5°	2518.3	2512.9	2491.6	2483.6	2474.2	2470.2	2460.9	2450.2	2443.5	2431.5	2424.8
30°	2653.1	2653.1	2635.8	2633.1	2633.1	2623.8	2613.1	2594.4	2582.4	2570.4	2566.3
32.5°	2788.0	2789.3	2772.0	2777.3	2781.3	2788.0	2790.7	2784.0	2776.0	2774.6	2766.6
35°	2982.9	2977.6	2960.2	2964.3	2962.9	2961.6	2961.6	2976.3	2978.9	2981.6	2965.6
37.5°	3224.6	3224.6	3207.3	3207.3	3199.3	3191.2	3180.6	3189.9	3204.6	3208.6	3197.9
40°	3501.0	3510.4	3489.0	3487.7	3490.3	3465.0	3453.0	3467.6	3477.0	3493.0	3481.0
42.5°	3826.8	3820.1	3798.8	3796.1	3781.4	3773.4	3762.7	3774.7	3789.4	3800.1	3804.1
45°	4139.3	4133.9	4109.9	4109.9	4095.2	4088.5	4093.9	4113.9	4120.6	4135.3	4150.0
47.5°	4447.7	4441.0	4425.0	4431.7	4433.0	4445.0	4462.4	4481.1	4499.8	4519.8	4526.5
50°	4762.8	4764.2	4746.8	4762.8	4782.9	4816.2	4863.0	4893.7	4932.4	4957.8	4965.8
52.5°	5049.9	5055.2	5073.9	5111.3	5151.4	5216.8	5296.9	5371.7	5435.8	5478.5	5475.9
55°	5394.4	5402.4	5447.8	5511.9	5577.3	5676.1	5795.0	5927.2	6034.0	6095.4	6056.7
57.5°	5835.0	5852.4	5903.1	5989.9	6087.4	6215.6	6378.5	6577.4	6743.0	6825.8	6763.0
60°	6439.9	6450.6	6512.0	6608.1	6725.6	6884.5	7102.2	7369.2	7602.9	7712.4	7640.3
62.5°	7237.0	7257.1	7306.5	7403.9	7524.1	7704.4	7970.1	8303.9	8595.0	8747.2	8584.3
65°	8189.1	8253.2	8294.6	8393.4	8505.5	8696.5	8974.2	9332.0	9644.5	9744.6	9556.4
67.5°	9131.8	9187.8	9259.9	9373.4	9486.9	9701.9	9959.6	10306.8	10649.9	10740.7	10448.3
70°	9544.4	9576.4	9688.6	9843.4	10061.1	10314.8	10612.5	11002.4	11427.1	11501.8	11130.6
72.5°	8717.8	8749.9	8875.4	9138.4	9517.6	9920.9	10440.3	11013.1	11573.9	11658.0	11146.6
75°	6593.5	6541.4	6727.0	7075.5	7586.9	8149.0	8875.4	9696.6	10507.1	10612.5	10002.3
77.5°	3407.6	3400.9	3541.1	3973.7	4583.9	5223.5	6023.3	6951.3	7744.4	8064.9	7568.2
80°	960.0	970.7	1037.5	1252.5	1609.0	2071.0	2695.9	3565.1	4214.0	4545.2	4267.5
82.5°	376.5	405.9	431.3	471.3	518.1	586.2	782.5	1164.3	1562.2	1866.7	1528.9
85°	134.9	144.2	204.3	241.7	245.7	259.0	295.1	344.5	415.3	495.4	407.3
87.5°	50.7	56.1	65.4	108.2	106.8	97.5	118.8	124.2	93.5	85.5	105.5
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°	2061.6	2061.6	2061.6	2061.6	2061.6	2061.6	2061.6	2061.6
2.5°	2056.3	2057.6	2057.6	2059.0	2060.3	2060.3	2063.0	2063.0
5°	2057.6	2057.6	2054.9	2056.3	2054.9	2054.9	2056.3	2056.3
7.5°	2054.9	2053.6	2050.9	2049.6	2046.9	2046.9	2046.9	2046.9
10°	2050.9	2049.6	2046.9	2045.6	2044.3	2044.3	2044.3	2044.3
12.5°	2061.6	2057.6	2054.9	2053.6	2053.6	2053.6	2053.6	2053.6
15°	2089.7	2080.3	2073.6	2073.6	2075.0	2077.6	2077.6	2080.3
17.5°	2124.4	2113.7	2107.0	2101.7	2104.4	2108.4	2111.0	2113.7
20°	2165.8	2160.4	2151.1	2145.7	2145.7	2151.1	2153.8	2155.1
22.5°	2223.2	2219.2	2215.2	2208.5	2208.5	2211.2	2216.5	2216.5
25°	2308.6	2306.0	2303.3	2298.0	2296.6	2296.6	2299.3	2302.0
27.5°	2415.5	2416.8	2414.1	2412.8	2408.8	2407.5	2411.5	2410.1
30°	2558.3	2565.0	2571.7	2566.3	2559.7	2555.7	2551.7	2546.3
32.5°	2751.9	2743.9	2738.6	2729.2	2717.2	2706.5	2698.5	2689.2
35°	2934.9	2921.5	2916.2	2924.2	2922.9	2916.2	2906.8	2898.8
37.5°	3159.2	3156.5	3159.2	3173.9	3171.2	3177.9	3159.2	3157.9
40°	3442.3	3444.9	3463.6	3481.0	3490.3	3499.7	3489.0	3478.3
42.5°	3770.7	3769.4	3776.1	3800.1	3816.1	3826.8	3804.1	3801.5
45°	4117.9	4108.6	4113.9	4133.9	4150.0	4162.0	4136.6	4136.6
47.5°	4499.8	4483.8	4466.4	4489.1	4498.4	4506.5	4486.4	4479.8
50°	4925.7	4892.3	4855.0	4864.3	4864.3	4861.6	4836.3	4834.9
52.5°	5414.4	5353.0	5284.9	5259.5	5244.9	5228.8	5184.8	5163.4
55°	5976.6	5884.4	5777.6	5712.2	5677.5	5633.4	5560.0	5539.9
57.5°	6633.5	6489.3	6305.0	6224.9	6147.5	6075.4	5993.9	5971.2
60°	7412.0	7199.7	6955.3	6807.1	6723.0	6653.5	6569.4	6565.4
62.5°	8279.9	7944.7	7668.3	7534.8	7473.4	7412.0	7331.8	7342.5
65°	9162.5	8812.6	8553.6	8445.4	8388.0	8337.3	8257.2	8269.2
67.5°	10033.1	9711.3	9426.8	9316.0	9251.9	9187.8	9115.7	9127.8
70°	10657.9	10258.7	9938.2	9692.6	9539.0	9365.4	9253.3	9225.2
72.5°	10479.0	9863.5	9354.7	8867.4	8581.6	8349.3	8191.7	8123.6
75°	9069.0	8227.8	7573.5	6975.3	6638.9	6365.1	6166.2	6042.0
77.5°	6735.0	5789.6	5016.5	4327.5	3782.8	3416.9	3159.2	2992.3
80°	3686.6	2804.0	2049.6	1440.7	1058.9	879.9	777.1	727.7
82.5°	1148.3	741.1	546.1	471.3	438.0	419.3	388.6	339.2
85°	365.9	320.5	297.8	284.4	271.1	236.3	162.9	148.2
87.5°	141.5	145.5	144.2	136.2	138.9	100.1	80.1	70.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)