

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: P299944

Luminaire Tested: **GLNA-AF-02-LED-E1-5WQ-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299944  
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-02-LED-E1-5WQ-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(2) 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: 8420.9 lumens  
Efficiency: N/A  
Efficacy: 127.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G2

Input Watts (W): 66  
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

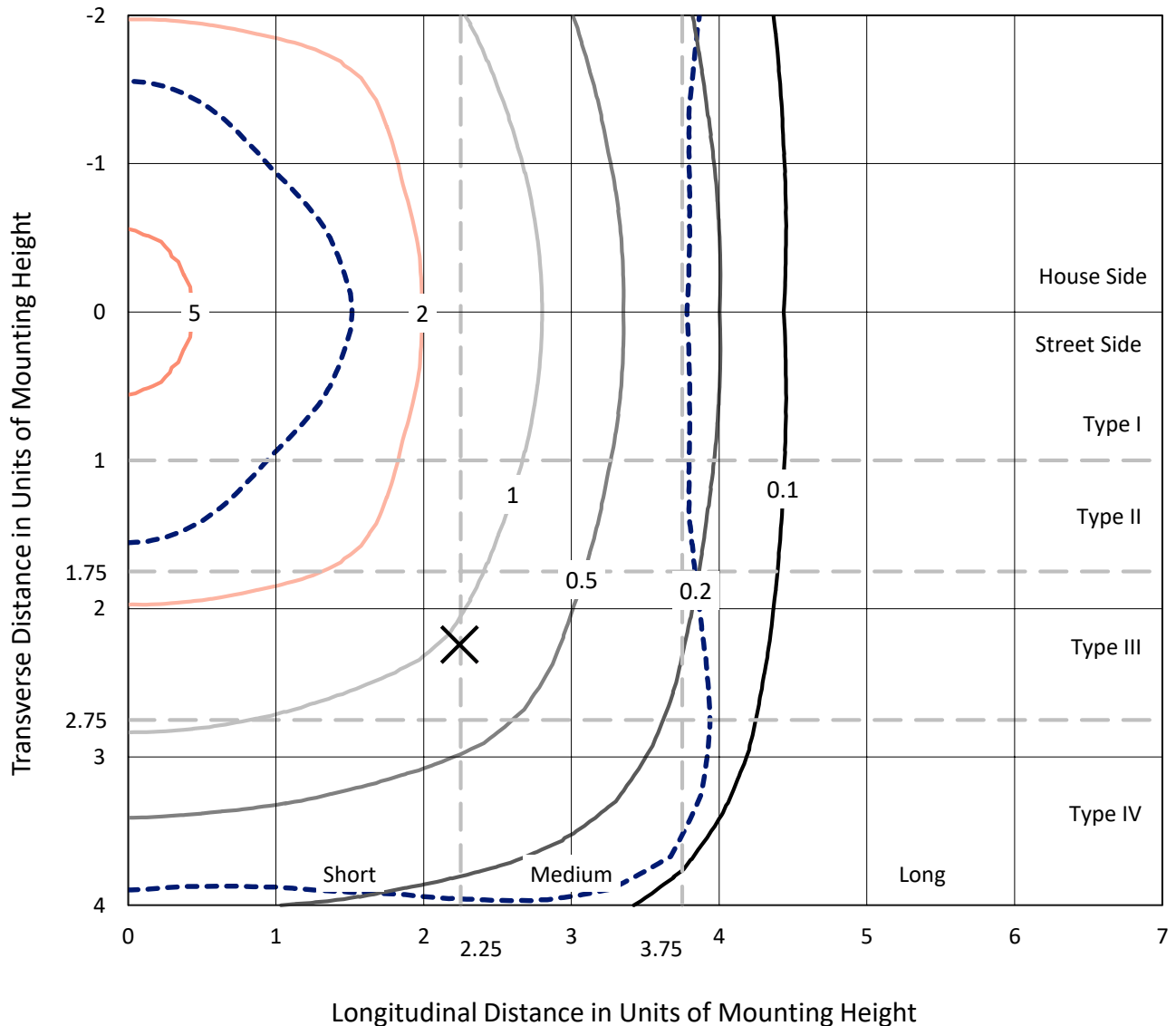


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

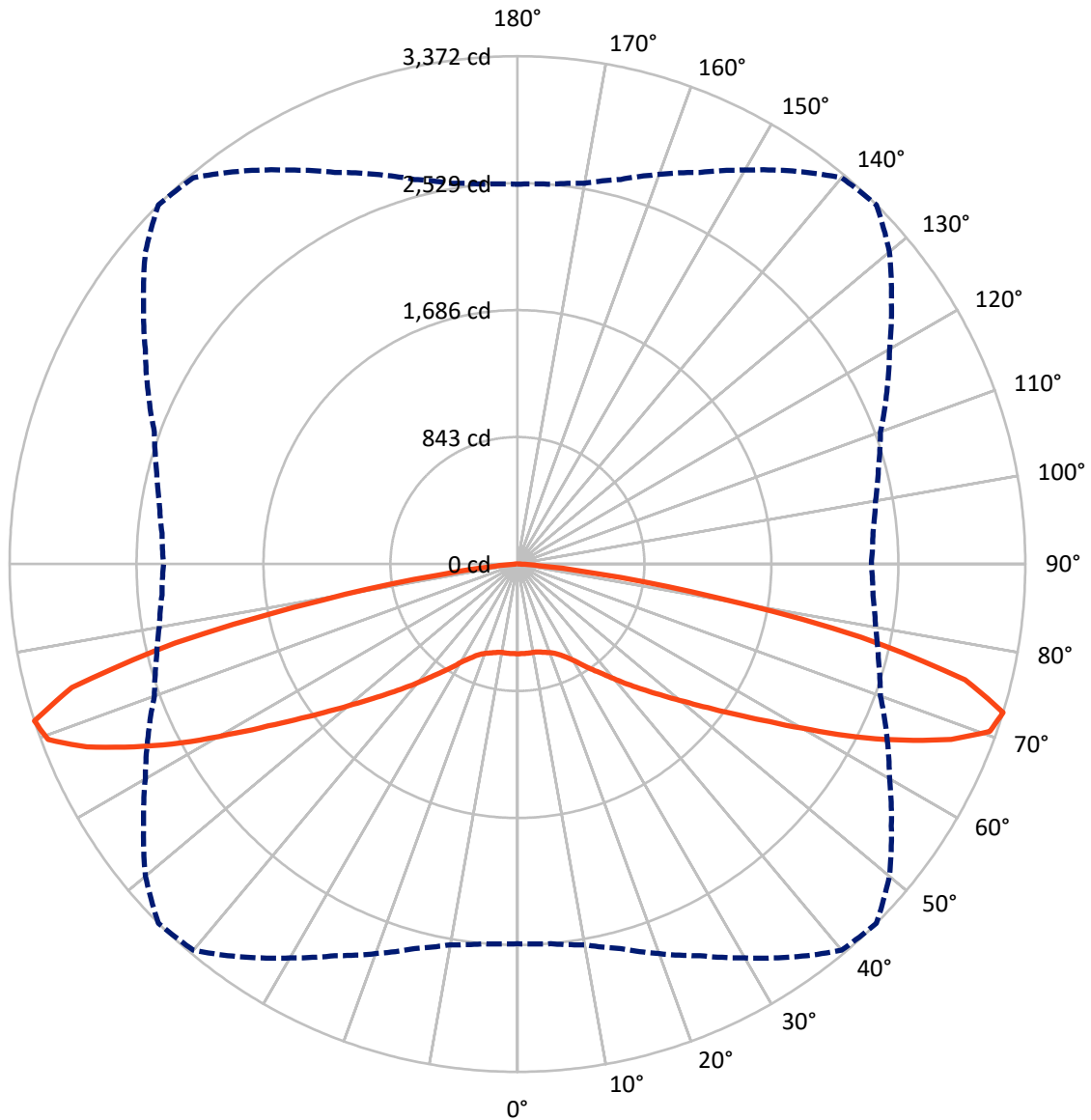


Based on 10 foot mounting height. Maximum calculated value = 6 fc  
 Type V - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



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

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4210.4	0.0	4210.4
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	4210.4	0.0	4210.4
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	8420.9	0.0	8420.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.9	0.7
10°-20°	172.9	2.1
20°-30°	316.0	3.8
30°-40°	544.9	6.5
40°-50°	931.5	11.1
50°-60°	1509.8	17.9
60°-70°	2504.8	29.7
70°-80°	2206.1	26.2
80°-90°	177.9	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°	8420.9	100.0
0°-180°	8420.9	100.0



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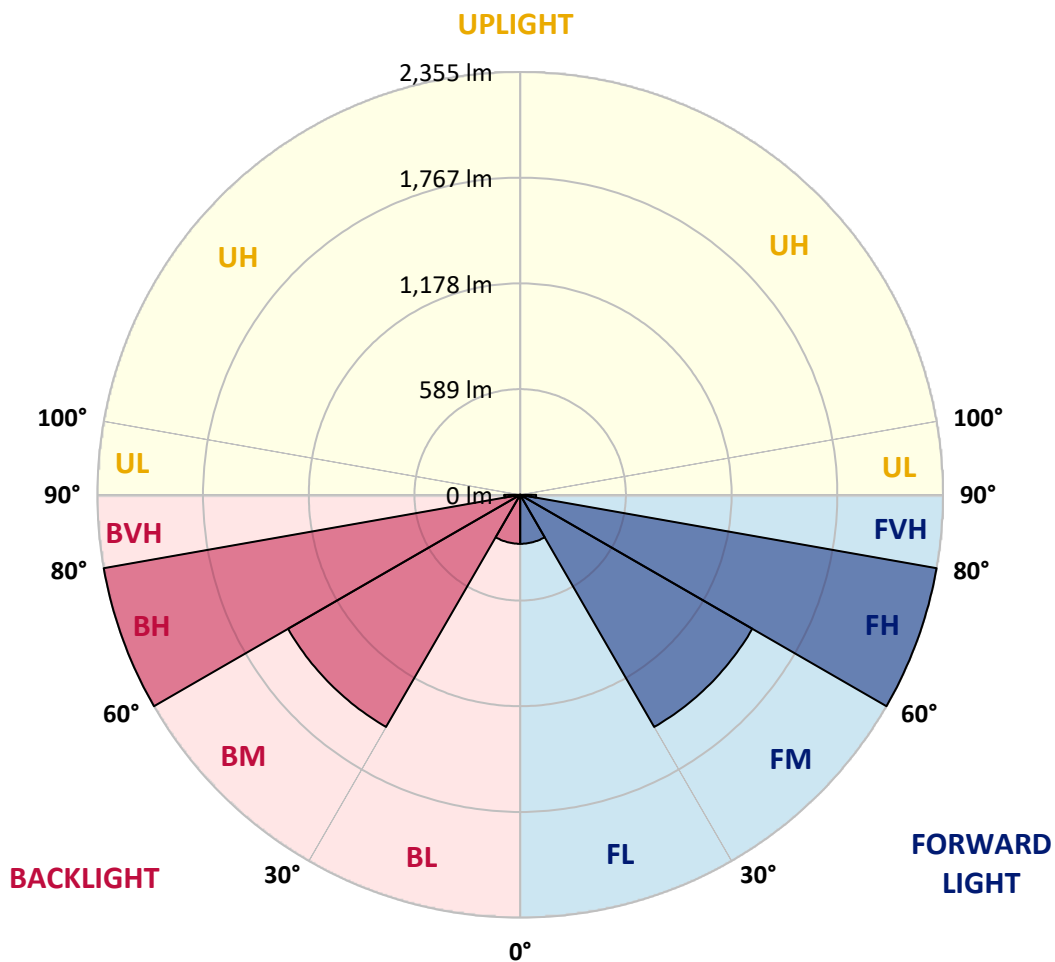
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	273.0	3.2			
FM	(30°-60°)	1493.1	17.7			
FH	(60°-80°)	2355.4	28.0			G2/5000
FVH	(80°-90°)	88.9	1.1			G1/100
BL	(0°-30°)	273.0	3.2	B1/500		
BM	(30°-60°)	1493.1	17.7	B2/2500		
BH	(60°-80°)	2355.4	28.0	B3/2500		G2/5000
BVH	(80°-90°)	88.9	1.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G2**

Type V Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3
2.5°	596.3	596.7	597.1	596.7	596.7	596.3	595.9	596.3	595.9	595.2	595.6
5°	598.3	599.0	599.0	598.3	598.6	598.3	597.5	597.9	597.1	595.9	595.9
7.5°	600.6	601.0	601.0	600.2	600.6	599.8	599.0	598.6	597.9	596.3	595.2
10°	604.1	604.4	604.1	603.3	603.3	602.1	600.2	599.4	597.9	595.6	594.4
12.5°	607.9	608.3	607.9	607.1	606.8	604.8	603.3	602.1	601.0	599.0	597.1
15°	613.3	614.1	613.3	611.8	610.6	609.1	608.3	608.7	609.1	607.5	605.6
17.5°	623.4	623.7	622.6	619.1	617.6	616.0	616.0	616.8	618.0	617.2	615.3
20°	641.9	640.7	638.0	633.8	631.9	629.2	628.8	629.2	629.2	628.8	627.2
22.5°	665.1	664.3	660.8	655.4	652.7	651.2	648.9	646.9	646.5	645.4	643.8
25°	692.9	692.5	688.2	683.6	681.7	679.8	677.8	675.1	672.8	670.1	668.6
27.5°	728.4	726.9	720.7	718.4	715.7	714.5	711.8	708.7	706.8	703.3	701.4
30°	767.4	767.4	762.4	761.6	761.6	758.9	755.8	750.4	747.0	743.5	742.3
32.5°	806.4	806.8	801.8	803.3	804.5	806.4	807.2	805.3	803.0	802.6	800.3
35°	862.8	861.3	856.3	857.4	857.0	856.6	856.6	860.9	861.7	862.4	857.8
37.5°	932.7	932.7	927.7	927.7	925.4	923.1	920.0	922.7	926.9	928.1	925.0
40°	1012.7	1015.4	1009.2	1008.8	1009.6	1002.2	998.8	1003.0	1005.7	1010.4	1006.9
42.5°	1106.9	1105.0	1098.8	1098.0	1093.8	1091.5	1088.4	1091.9	1096.1	1099.2	1100.3
45°	1197.3	1195.7	1188.8	1188.8	1184.5	1182.6	1184.2	1190.0	1191.9	1196.1	1200.4
47.5°	1286.5	1284.6	1279.9	1281.9	1282.3	1285.7	1290.8	1296.2	1301.6	1307.4	1309.3
50°	1377.7	1378.0	1373.0	1377.7	1383.4	1393.1	1406.6	1415.5	1426.7	1434.0	1436.4
52.5°	1460.7	1462.2	1467.6	1478.5	1490.0	1509.0	1532.1	1553.8	1572.3	1584.7	1583.9
55°	1560.3	1562.7	1575.8	1594.3	1613.3	1641.8	1676.2	1714.4	1745.3	1763.1	1751.9
57.5°	1687.8	1692.8	1707.5	1732.6	1760.8	1797.9	1845.0	1902.5	1950.4	1974.4	1956.2
60°	1862.8	1865.8	1883.6	1911.4	1945.4	1991.4	2054.3	2131.6	2199.1	2230.8	2210.0
62.5°	2093.3	2099.1	2113.4	2141.6	2176.4	2228.5	2305.4	2401.9	2486.1	2530.1	2483.0
65°	2368.7	2387.2	2399.2	2427.8	2460.2	2515.5	2595.8	2699.3	2789.7	2818.7	2764.2
67.5°	2641.4	2657.6	2678.5	2711.3	2744.1	2806.3	2880.8	2981.2	3080.5	3106.8	3022.2
70°	2760.7	2770.0	2802.4	2847.2	2910.2	2983.6	3069.7	3182.5	3305.3	3326.9	3219.5
72.5°	2521.6	2530.9	2567.2	2643.3	2753.0	2869.6	3019.9	3185.6	3347.8	3372.1	3224.2
75°	1907.2	1892.1	1945.8	2046.6	2194.5	2357.1	2567.2	2804.7	3039.2	3069.7	2893.2
77.5°	985.6	983.7	1024.3	1149.4	1325.9	1510.9	1742.2	2010.7	2240.1	2332.8	2189.1
80°	277.7	280.8	300.1	362.3	465.4	599.0	779.8	1031.2	1218.9	1314.7	1234.4
82.5°	108.9	117.4	124.7	136.3	149.9	169.6	226.3	336.8	451.9	539.9	442.2
85°	39.0	41.7	59.1	69.9	71.1	74.9	85.4	99.6	120.1	143.3	117.8
87.5°	14.7	16.2	18.9	31.3	30.9	28.2	34.4	35.9	27.0	24.7	30.5
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°	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3
2.5°	594.8	595.2	595.2	595.6	595.9	595.9	596.7	596.7
5°	595.2	595.2	594.4	594.8	594.4	594.4	594.8	594.8
7.5°	594.4	594.0	593.2	592.9	592.1	592.1	592.1	592.1
10°	593.2	592.9	592.1	591.7	591.3	591.3	591.3	591.3
12.5°	596.3	595.2	594.4	594.0	594.0	594.0	594.0	594.0
15°	604.4	601.7	599.8	599.8	600.2	601.0	601.0	601.7
17.5°	614.5	611.4	609.5	607.9	608.7	609.8	610.6	611.4
20°	626.5	624.9	622.2	620.7	620.7	622.2	623.0	623.4
22.5°	643.1	641.9	640.7	638.8	638.8	639.6	641.1	641.1
25°	667.8	667.0	666.2	664.7	664.3	664.3	665.1	665.8
27.5°	698.7	699.1	698.3	697.9	696.7	696.4	697.5	697.1
30°	740.0	741.9	743.9	742.3	740.4	739.2	738.1	736.5
32.5°	796.0	793.7	792.1	789.4	786.0	782.9	780.6	777.9
35°	848.9	845.1	843.5	845.8	845.4	843.5	840.8	838.5
37.5°	913.8	913.0	913.8	918.1	917.3	919.2	913.8	913.4
40°	995.7	996.5	1001.9	1006.9	1009.6	1012.3	1009.2	1006.1
42.5°	1090.7	1090.3	1092.2	1099.2	1103.8	1106.9	1100.3	1099.6
45°	1191.1	1188.4	1190.0	1195.7	1200.4	1203.9	1196.5	1196.5
47.5°	1301.6	1296.9	1291.9	1298.5	1301.2	1303.5	1297.7	1295.8
50°	1424.8	1415.1	1404.3	1407.0	1407.0	1406.2	1398.9	1398.5
52.5°	1566.1	1548.4	1528.7	1521.3	1517.1	1512.4	1499.7	1493.5
55°	1728.7	1702.1	1671.2	1652.3	1642.2	1629.5	1608.2	1602.4
57.5°	1918.8	1877.0	1823.7	1800.6	1778.2	1757.3	1733.8	1727.2
60°	2143.9	2082.5	2011.8	1969.0	1944.6	1924.5	1900.2	1899.1
62.5°	2395.0	2298.0	2218.1	2179.5	2161.7	2143.9	2120.7	2123.8
65°	2650.3	2549.1	2474.1	2442.9	2426.2	2411.6	2388.4	2391.9
67.5°	2902.1	2809.0	2726.7	2694.7	2676.1	2657.6	2636.7	2640.2
70°	3082.8	2967.3	2874.7	2803.6	2759.2	2709.0	2676.5	2668.4
72.5°	3031.1	2853.0	2705.9	2564.9	2482.3	2415.0	2369.5	2349.8
75°	2623.2	2379.9	2190.7	2017.6	1920.3	1841.1	1783.6	1747.7
77.5°	1948.1	1674.7	1451.0	1251.7	1094.2	988.3	913.8	865.5
80°	1066.4	811.1	592.9	416.7	306.3	254.5	224.8	210.5
82.5°	332.2	214.4	158.0	136.3	126.7	121.3	112.4	98.1
85°	105.8	92.7	86.1	82.3	78.4	68.4	47.1	42.9
87.5°	40.9	42.1	41.7	39.4	40.2	29.0	23.2	20.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)