

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: P299707

Luminaire Tested: **GLNA-AF-03-LED-E1-5MQ-7027-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299707  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24142)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-03-LED-E1-5MQ-7027-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(3) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10889.1 lumens  
Efficiency: N/A  
Efficacy: 113.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B4 - U0 - G2

Input Watts (W): 96  
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

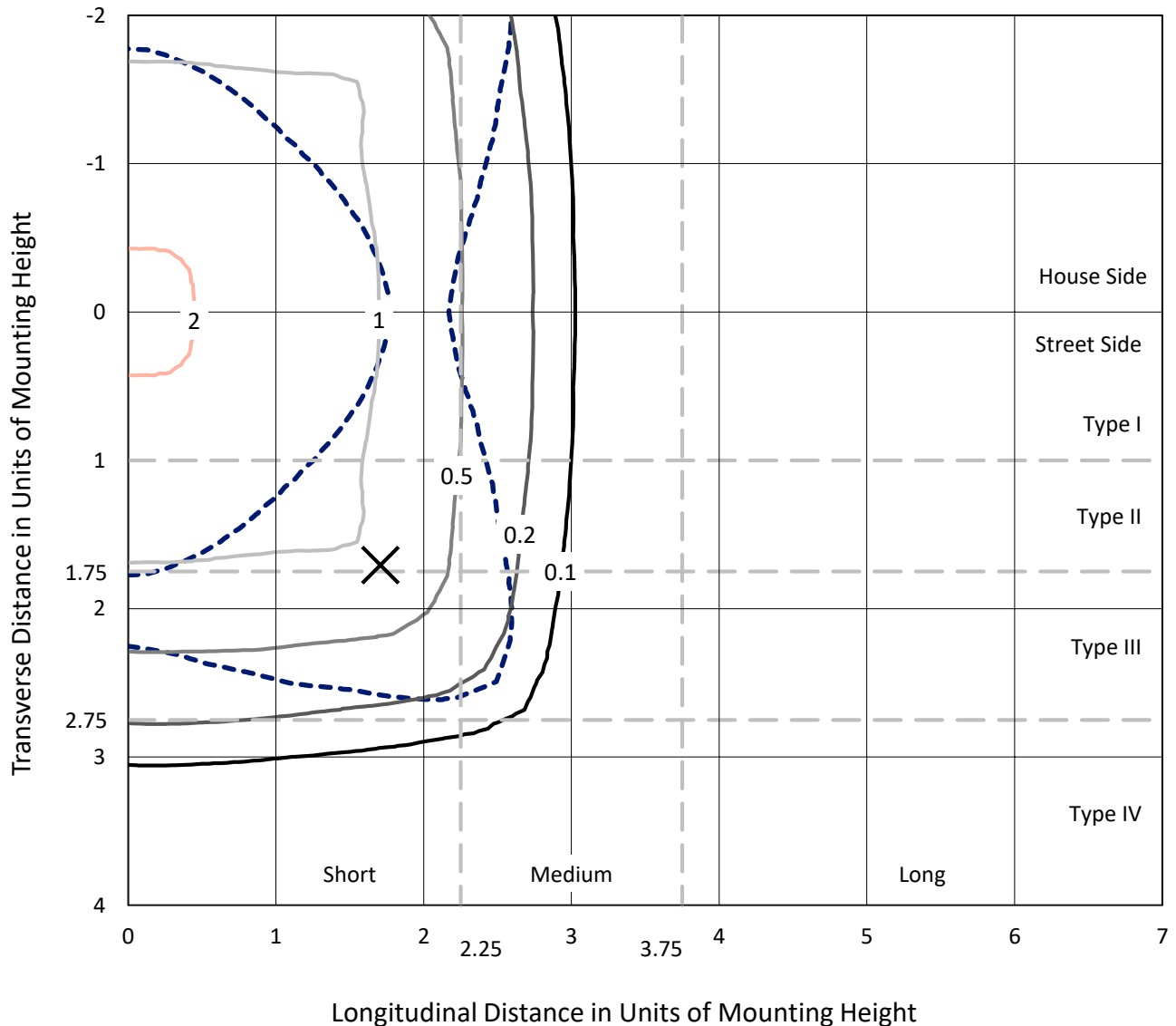


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### Iso-Footcandle Lines of Horizontal Illumination

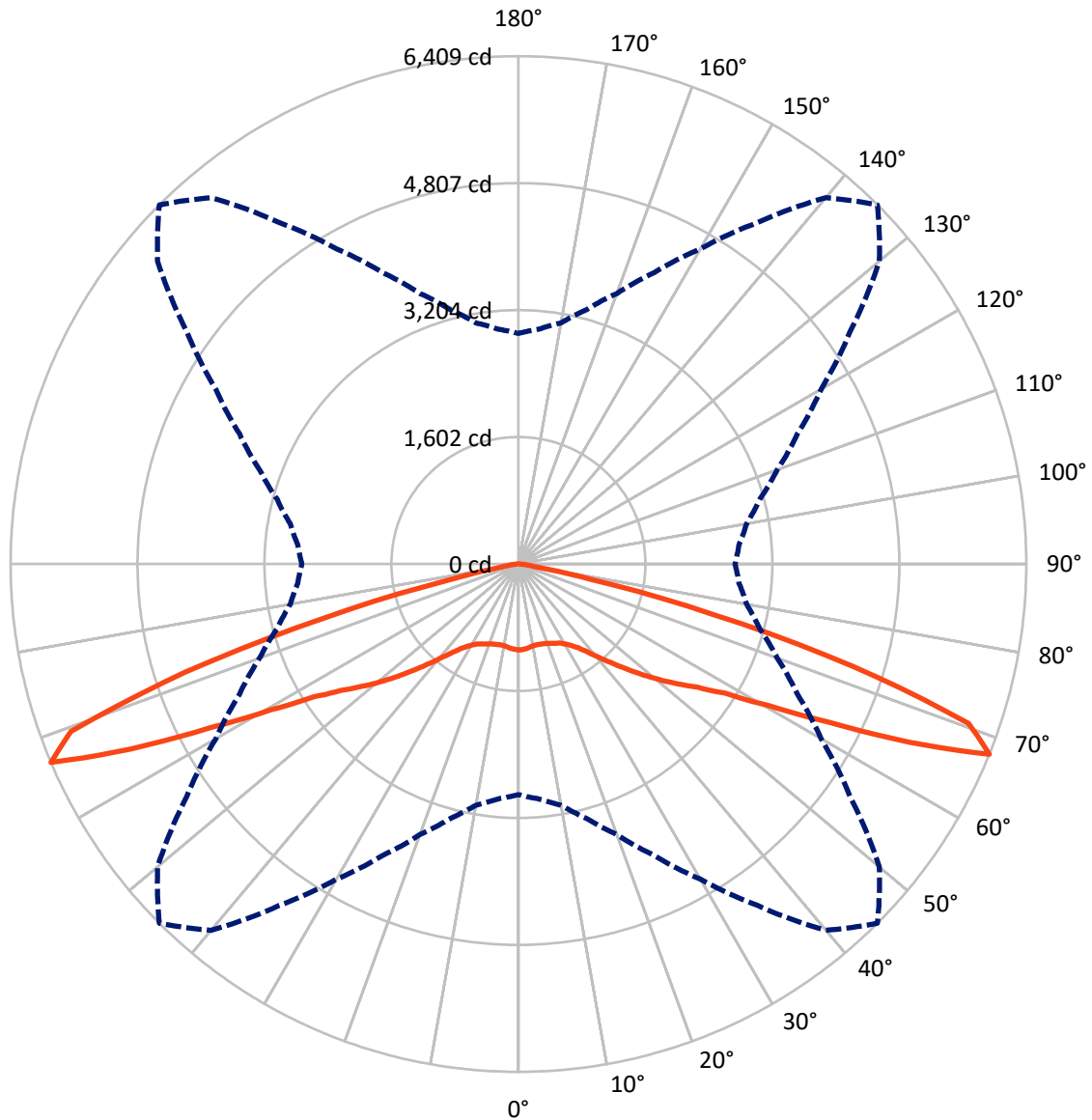
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 2.7 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5444.6	0.0	5444.6
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	5444.6	0.0	5444.6
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	10889.1	0.0	10889.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.6	0.9
10°-20°	294.7	2.7
20°-30°	501.0	4.6
30°-40°	819.0	7.5
40°-50°	1462.1	13.4
50°-60°	2465.1	22.6
60°-70°	3825.5	35.1
70°-80°	1344.1	12.3
80°-90°	76.0	0.7
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°	10889.1	100.0
0°-180°	10889.1	100.0



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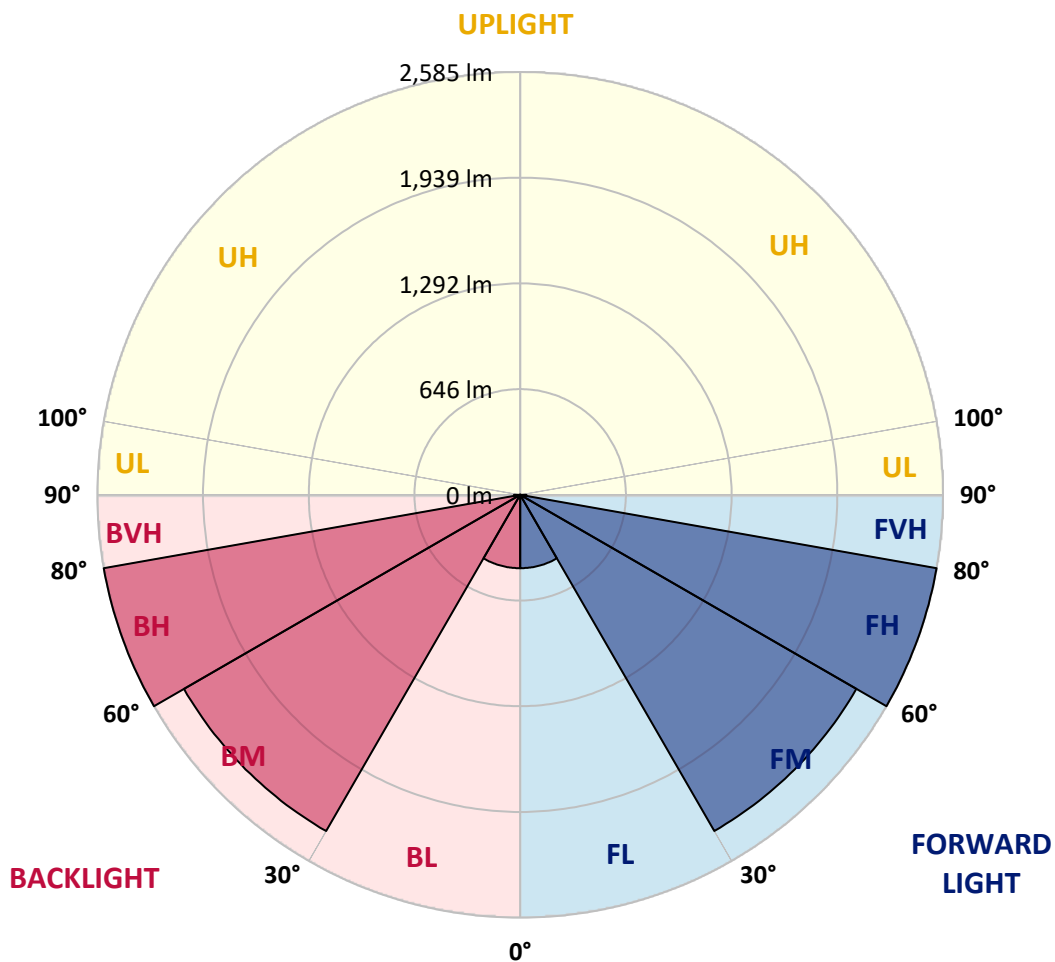
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	448.7	4.1			
FM	(30°-60°)	2373.1	21.8			
FH	(60°-80°)	2584.8	23.7			G2/5000
FVH	(80°-90°)	38.0	0.3			G1/100
BL	(0°-30°)	448.7	4.1	B1/500		
BM	(30°-60°)	2373.1	21.8	B2/2500		
BH	(60°-80°)	2584.8	23.7	B4/5000		G2/5000
BVH	(80°-90°)	38.0	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°	1085.1	1085.1	1085.1	1085.1	1085.1	1085.1	1085.1	1085.1	1085.1	1085.1	1085.1
2.5°	1081.1	1082.1	1082.1	1082.1	1081.6	1081.6	1080.6	1081.6	1081.1	1079.6	1080.1
5°	1072.1	1073.1	1073.1	1072.6	1074.1	1073.6	1072.1	1073.1	1072.6	1071.6	1072.1
7.5°	1059.1	1060.6	1060.6	1060.1	1061.6	1061.1	1060.1	1060.6	1060.6	1059.1	1059.1
10°	1044.6	1045.6	1045.6	1045.1	1047.6	1047.6	1047.1	1048.6	1049.1	1047.6	1046.6
12.5°	1031.1	1032.6	1032.6	1034.6	1037.1	1038.1	1040.6	1042.6	1044.6	1044.1	1042.1
15°	1023.1	1024.1	1026.1	1028.6	1032.6	1036.1	1040.1	1044.6	1048.6	1049.6	1046.6
17.5°	1018.0	1019.5	1022.6	1026.1	1031.6	1037.6	1043.6	1049.6	1055.1	1057.1	1053.6
20°	1016.5	1017.5	1020.6	1026.6	1034.1	1043.1	1051.6	1058.6	1066.1	1068.6	1066.1
22.5°	1019.5	1021.6	1025.1	1032.1	1042.1	1053.6	1063.6	1073.1	1082.6	1087.2	1083.6
25°	1033.1	1035.1	1039.6	1048.6	1059.6	1071.6	1083.1	1094.2	1102.7	1107.2	1104.7
27.5°	1058.1	1060.6	1066.1	1075.1	1087.2	1100.2	1112.7	1121.7	1128.7	1130.2	1127.2
30°	1095.7	1101.2	1107.7	1117.7	1131.7	1142.7	1155.3	1163.3	1171.8	1171.8	1169.3
32.5°	1154.3	1159.8	1166.8	1176.3	1187.3	1199.3	1210.3	1217.4	1226.4	1226.9	1220.9
35°	1241.9	1244.4	1250.4	1256.4	1266.4	1276.9	1286.5	1291.0	1298.5	1299.0	1293.5
37.5°	1357.6	1358.1	1362.1	1364.1	1373.1	1384.6	1393.6	1396.6	1403.6	1402.6	1397.1
40°	1492.3	1494.8	1496.3	1499.3	1508.8	1519.8	1529.3	1530.8	1538.3	1536.8	1529.8
42.5°	1648.0	1649.0	1657.5	1662.0	1671.0	1676.5	1688.6	1690.1	1699.1	1695.1	1687.1
45°	1822.8	1831.8	1839.8	1848.8	1858.3	1864.8	1874.3	1872.3	1878.4	1872.3	1867.8
47.5°	2006.5	2013.1	2031.1	2045.1	2060.6	2066.1	2079.7	2073.7	2079.7	2071.1	2069.6
50°	2208.9	2220.4	2235.9	2251.9	2268.4	2277.5	2295.0	2287.5	2295.5	2287.5	2283.0
52.5°	2408.2	2411.2	2445.2	2468.8	2491.8	2502.3	2512.8	2509.3	2509.8	2509.3	2504.8
55°	2597.4	2604.5	2638.5	2670.6	2710.6	2740.2	2758.2	2756.2	2751.7	2747.2	2739.7
57.5°	2810.8	2817.8	2856.8	2896.4	2942.0	2984.0	3020.6	3058.1	3072.7	3076.7	3060.2
60°	3099.2	3098.7	3150.8	3198.9	3264.0	3326.6	3406.7	3488.3	3581.9	3625.5	3567.9
62.5°	3392.7	3404.7	3479.8	3564.9	3699.1	3829.8	3977.5	4122.8	4271.0	4391.7	4263.5
65°	3357.6	3403.7	3515.3	3708.1	3956.0	4250.5	4568.9	4906.0	5210.4	5419.7	5184.9
67.5°	2909.9	2975.5	3089.2	3323.6	3633.5	4058.2	4593.0	5259.5	6034.2	6408.7	5944.5
70°	2109.2	2183.3	2302.5	2531.3	2838.3	3241.9	3822.8	4623.0	5648.6	6026.2	5514.9
72.5°	1049.6	1089.7	1163.3	1309.0	1541.3	1868.8	2395.6	3164.8	4072.2	4418.7	3951.5
75°	356.5	375.1	387.6	435.2	508.8	637.5	899.4	1383.6	2110.7	2530.3	2080.7
77.5°	205.8	206.3	214.8	223.3	235.9	249.9	284.9	374.1	647.0	918.9	669.5
80°	133.2	132.7	139.7	146.2	154.7	161.7	163.7	173.3	199.8	236.9	211.8
82.5°	69.1	77.6	93.1	101.7	117.7	120.7	116.7	113.2	119.7	124.2	127.2
85°	38.1	33.1	49.6	64.1	71.1	72.1	72.1	68.1	70.6	69.1	75.1
87.5°	17.5	16.0	19.5	31.5	33.6	28.5	30.0	26.5	19.0	18.5	21.0
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°	1085.1	1085.1	1085.1	1085.1	1085.1	1085.1	1085.1	1085.1
2.5°	1080.1	1080.6	1080.6	1082.1	1082.6	1083.6	1084.6	1085.1
5°	1071.6	1073.1	1072.1	1073.6	1073.6	1074.6	1074.6	1075.1
7.5°	1059.1	1060.6	1060.6	1060.6	1060.1	1061.6	1061.6	1061.6
10°	1046.1	1047.1	1046.6	1045.6	1044.6	1046.1	1045.6	1045.1
12.5°	1042.1	1039.6	1037.6	1036.6	1034.6	1035.1	1033.6	1033.6
15°	1044.6	1040.1	1036.6	1035.1	1033.1	1032.1	1031.1	1031.6
17.5°	1051.1	1045.6	1041.1	1038.6	1036.1	1034.6	1032.6	1033.1
20°	1062.6	1056.1	1049.6	1044.6	1040.1	1037.6	1036.1	1035.6
22.5°	1079.6	1070.1	1060.6	1053.1	1047.1	1043.6	1042.1	1041.1
25°	1099.2	1088.7	1077.6	1069.1	1063.1	1058.6	1055.6	1055.6
27.5°	1123.7	1115.2	1105.2	1095.2	1089.7	1085.1	1083.1	1082.1
30°	1164.8	1156.8	1148.7	1139.2	1132.2	1127.7	1124.2	1121.2
32.5°	1217.4	1210.8	1204.3	1197.3	1190.8	1184.8	1179.3	1176.8
35°	1291.5	1286.5	1281.9	1273.9	1271.4	1267.9	1264.9	1262.4
37.5°	1393.6	1391.6	1391.6	1383.1	1381.1	1379.6	1376.6	1377.1
40°	1527.8	1529.8	1527.3	1524.3	1522.8	1518.8	1518.8	1522.3
42.5°	1686.6	1688.1	1693.6	1688.6	1694.1	1689.1	1686.1	1688.6
45°	1870.8	1876.4	1887.4	1882.4	1885.9	1877.4	1866.8	1867.3
47.5°	2077.7	2082.7	2087.2	2083.7	2084.2	2070.1	2056.1	2052.6
50°	2292.5	2294.5	2297.0	2292.0	2293.0	2277.5	2261.4	2261.9
52.5°	2504.8	2514.3	2524.3	2510.8	2507.8	2490.3	2467.8	2458.7
55°	2747.7	2761.2	2749.7	2726.1	2702.6	2679.1	2649.5	2644.5
57.5°	3047.1	3024.1	2988.0	2943.5	2910.9	2877.9	2847.8	2835.3
60°	3463.8	3377.1	3312.0	3245.9	3204.4	3163.8	3124.2	3118.2
62.5°	4052.7	3902.9	3773.2	3636.5	3524.9	3437.7	3368.1	3348.6
65°	4790.8	4436.7	4129.8	3843.3	3594.5	3406.7	3288.5	3236.4
67.5°	5108.3	4409.2	3882.9	3476.3	3150.8	2923.4	2795.7	2732.2
70°	4488.8	3656.6	3084.2	2677.1	2380.6	2138.2	2022.6	1954.5
72.5°	3088.2	2326.0	1839.3	1501.3	1264.4	1061.6	981.5	975.5
75°	1386.6	918.4	633.0	487.7	410.6	357.0	340.5	328.0
77.5°	388.1	286.9	255.9	239.4	223.3	204.8	197.8	199.3
80°	188.8	178.3	171.3	160.7	146.2	130.7	123.7	126.7
82.5°	125.2	123.7	128.2	120.7	99.7	84.6	71.1	65.1
85°	76.1	77.1	78.6	79.1	67.1	47.1	32.0	36.1
87.5°	30.0	34.6	37.6	39.1	36.6	22.5	18.0	18.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)