

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: P299890

Luminaire Tested: **GLNA-AF-03-LED-E1-5WQ-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299890
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-03-LED-E1-5WQ-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15409.7 lumens
Efficiency: N/A
Efficacy: 124.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G2

Input Watts (W): 124
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

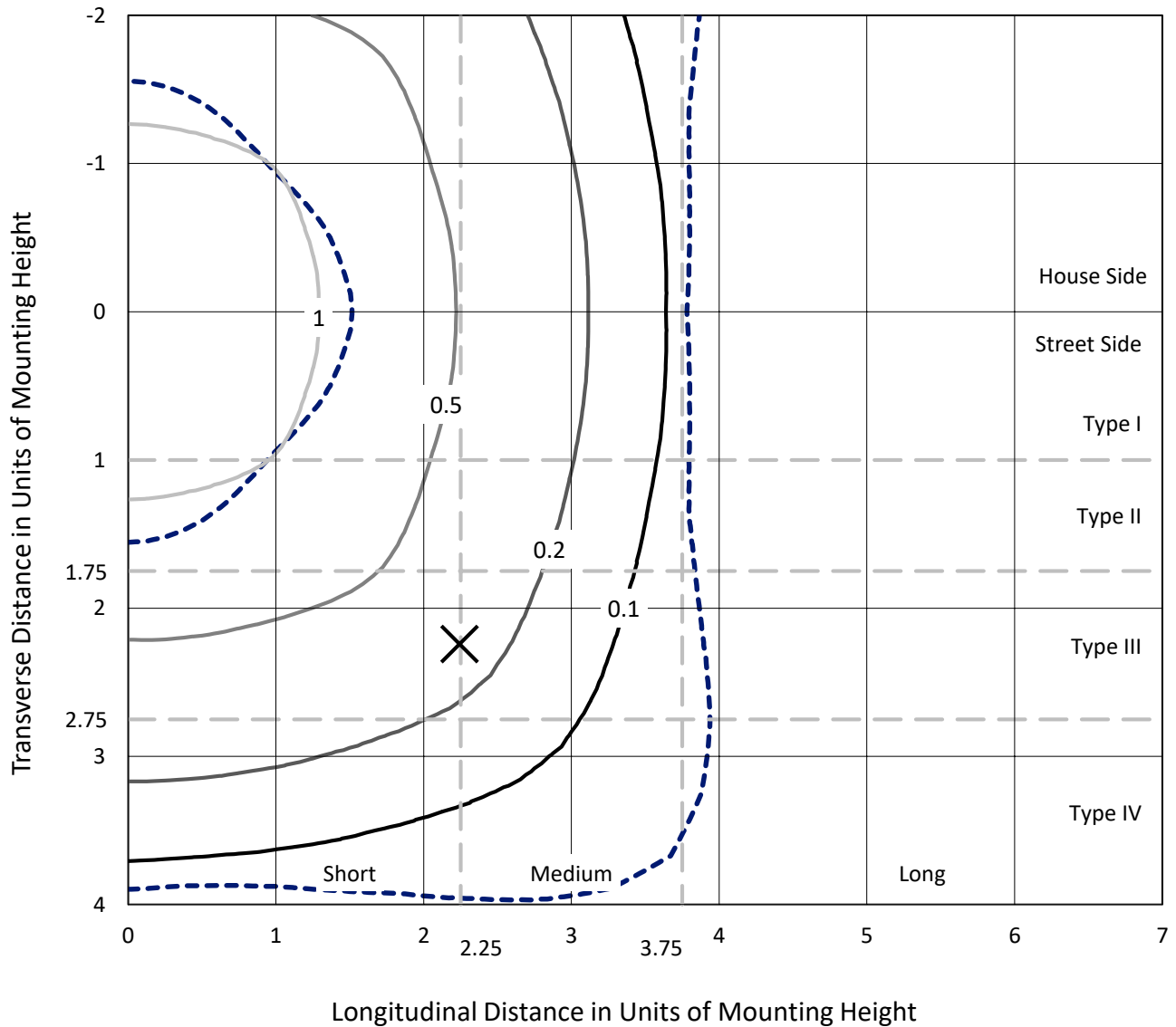


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

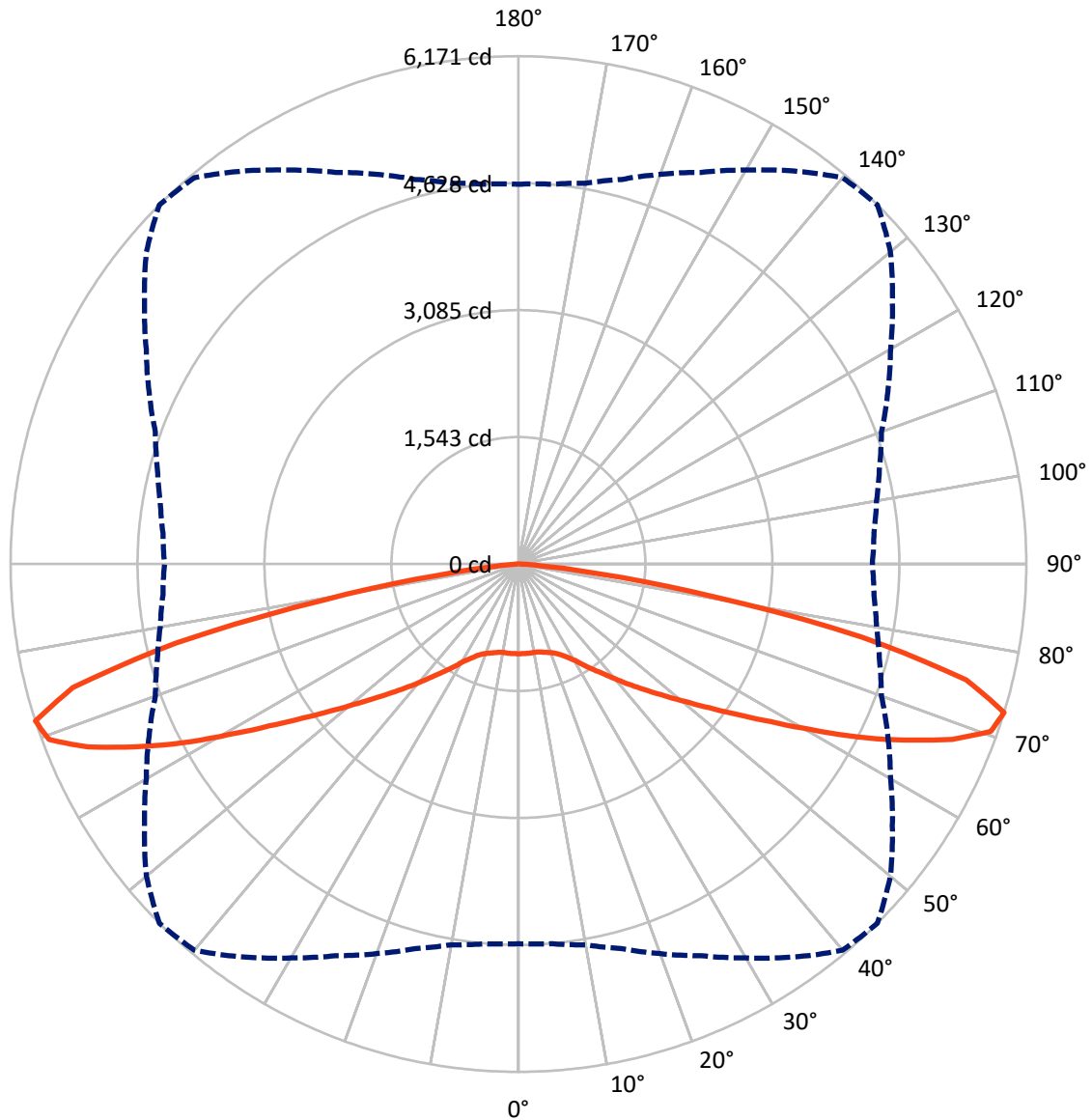


Based on 25 foot mounting height. Maximum calculated value = 1.7 fc
 Type V - Short - Semi-Cutoff

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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
House Side	Lumens	7704.8	0.0	7704.8
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	7704.8	0.0	7704.8
	% Fixture	50.0	0.0	50.0
Total	Lumens	15409.7	0.0	15409.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.2	0.7
10°-20°	316.5	2.1
20°-30°	578.3	3.8
30°-40°	997.1	6.5
40°-50°	1704.6	11.1
50°-60°	2762.9	17.9
60°-70°	4583.6	29.7
70°-80°	4037.0	26.2
80°-90°	325.5	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°	15409.7	100.0
0°-180°	15409.7	100.0



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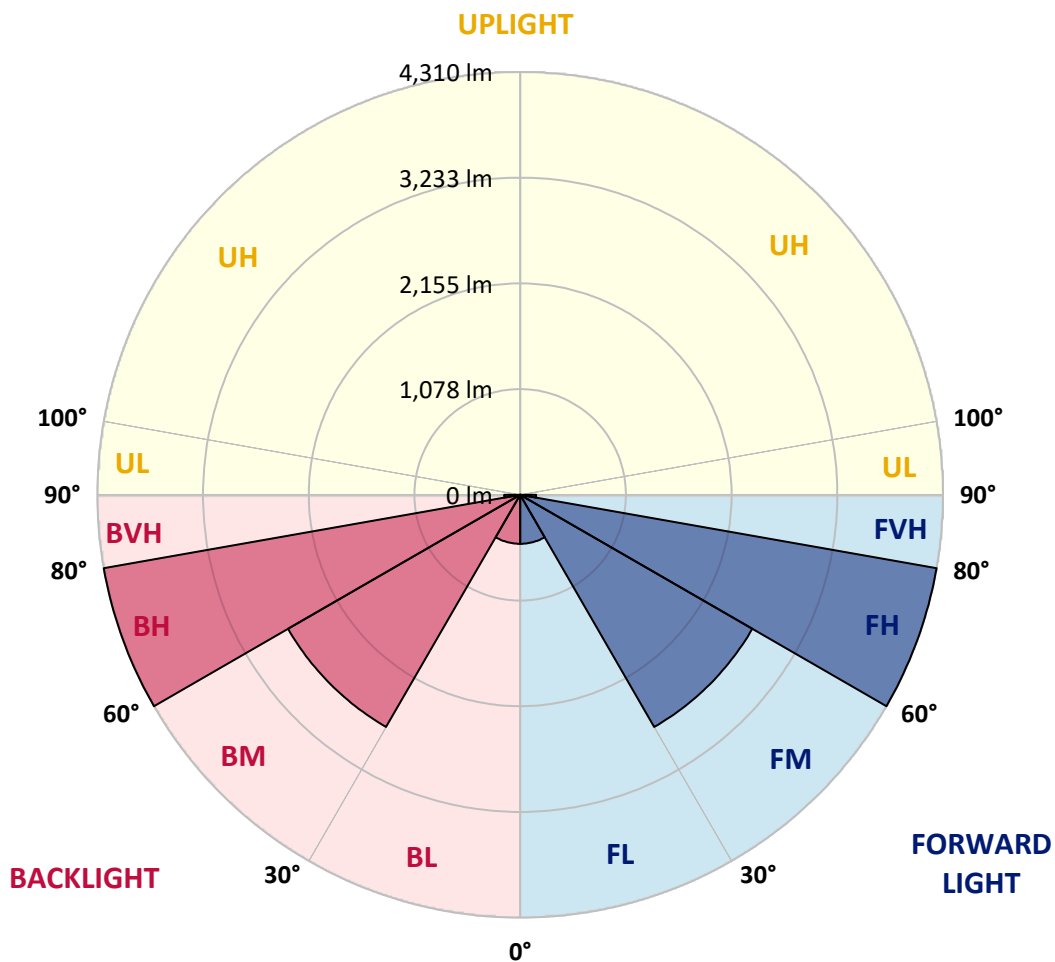
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	499.5	3.2			
FM (30°-60°)	2732.3	17.7			
FH (60°-80°)	4310.3	28.0			G2/5000
FVH (80°-90°)	162.7	1.1			G2/225
BL (0°-30°)	499.5	3.2	B1/500		
BM (30°-60°)	2732.3	17.7	B3/5000		
BH (60°-80°)	4310.3	28.0	B4/5000		G2/5000
BVH (80°-90°)	162.7	1.1			G2/225
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°	1091.2	1091.2	1091.2	1091.2	1091.2	1091.2	1091.2	1091.2	1091.2	1091.2	1091.2
2.5°	1091.2	1092.0	1092.7	1092.0	1092.0	1091.2	1090.5	1091.2	1090.5	1089.1	1089.8
5°	1094.8	1096.2	1096.2	1094.8	1095.5	1094.8	1093.4	1094.1	1092.7	1090.5	1090.5
7.5°	1099.0	1099.7	1099.7	1098.3	1099.0	1097.6	1096.2	1095.5	1094.1	1091.2	1089.1
10°	1105.4	1106.1	1105.4	1104.0	1104.0	1101.8	1098.3	1096.9	1094.1	1089.8	1087.7
12.5°	1112.4	1113.2	1112.4	1111.0	1110.3	1106.8	1104.0	1101.8	1099.7	1096.2	1092.7
15°	1122.3	1123.8	1122.3	1119.5	1117.4	1114.6	1113.2	1113.9	1114.6	1111.7	1108.2
17.5°	1140.7	1141.4	1139.3	1132.9	1130.1	1127.3	1127.3	1128.7	1130.8	1129.4	1125.9
20°	1174.6	1172.5	1167.6	1159.8	1156.3	1151.3	1150.6	1151.3	1151.3	1150.6	1147.8
22.5°	1217.0	1215.6	1209.3	1199.4	1194.4	1191.6	1187.4	1183.8	1183.1	1181.0	1178.2
25°	1267.9	1267.2	1259.5	1251.0	1247.4	1243.9	1240.4	1235.4	1231.2	1226.2	1223.4
27.5°	1333.0	1330.1	1318.8	1314.6	1309.6	1307.5	1302.6	1296.9	1293.4	1287.0	1283.5
30°	1404.3	1404.3	1395.2	1393.7	1393.7	1388.8	1383.1	1373.2	1366.9	1360.5	1358.4
32.5°	1475.7	1476.4	1467.2	1470.1	1472.2	1475.7	1477.1	1473.6	1469.4	1468.7	1464.4
35°	1578.9	1576.1	1566.9	1569.0	1568.3	1567.6	1567.6	1575.4	1576.8	1578.2	1569.7
37.5°	1706.8	1706.8	1697.6	1697.6	1693.4	1689.2	1683.5	1688.5	1696.2	1698.4	1692.7
40°	1853.1	1858.1	1846.8	1846.1	1847.5	1834.1	1827.7	1835.5	1840.4	1848.9	1842.5
42.5°	2025.6	2022.1	2010.7	2009.3	2001.6	1997.3	1991.7	1998.0	2005.8	2011.5	2013.6
45°	2191.0	2188.1	2175.4	2175.4	2167.6	2164.1	2166.9	2177.5	2181.1	2188.9	2196.6
47.5°	2354.2	2350.7	2342.2	2345.8	2346.5	2352.8	2362.0	2371.9	2381.8	2392.4	2395.9
50°	2521.0	2521.7	2512.5	2521.0	2531.6	2549.3	2574.0	2590.3	2610.8	2624.2	2628.5
52.5°	2673.0	2675.8	2685.7	2705.5	2726.7	2761.3	2803.7	2843.3	2877.2	2899.9	2898.4
55°	2855.3	2859.6	2883.6	2917.5	2952.2	3004.5	3067.4	3137.3	3193.9	3226.4	3205.9
57.5°	3088.6	3097.8	3124.6	3170.5	3222.1	3290.0	3376.2	3481.5	3569.2	3613.0	3579.8
60°	3408.7	3414.4	3446.9	3497.8	3560.0	3644.1	3759.3	3900.6	4024.3	4082.3	4044.1
62.5°	3830.7	3841.3	3867.4	3919.0	3982.6	4078.0	4218.7	4395.4	4549.4	4630.0	4543.8
65°	4334.6	4368.5	4390.4	4442.7	4502.1	4603.2	4750.2	4939.6	5105.0	5158.0	5058.3
67.5°	4833.6	4863.3	4901.4	4961.5	5021.6	5135.4	5271.8	5455.5	5637.2	5685.2	5530.4
70°	5052.0	5068.9	5128.3	5210.3	5325.5	5459.8	5617.4	5823.7	6048.5	6088.1	5891.6
72.5°	4614.5	4631.4	4697.9	4837.1	5037.8	5251.3	5526.2	5829.4	6126.2	6170.8	5900.1
75°	3490.0	3462.4	3560.7	3745.1	4015.8	4313.4	4697.9	5132.5	5561.5	5617.4	5294.4
77.5°	1803.7	1800.1	1874.3	2103.3	2426.3	2764.9	3188.2	3679.4	4099.2	4268.9	4005.9
80°	508.2	513.8	549.2	662.9	851.7	1096.2	1427.0	1887.1	2230.6	2405.8	2258.8
82.5°	199.3	214.9	228.3	249.5	274.2	310.3	414.2	616.3	826.9	988.1	809.2
85°	71.4	76.3	108.1	127.9	130.0	137.1	156.2	182.3	219.8	262.2	215.6
87.5°	26.9	29.7	34.6	57.2	56.5	51.6	62.9	65.7	49.5	45.2	55.8
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°	1091.2	1091.2	1091.2	1091.2	1091.2	1091.2	1091.2	1091.2
2.5°	1088.4	1089.1	1089.1	1089.8	1090.5	1090.5	1092.0	1092.0
5°	1089.1	1089.1	1087.7	1088.4	1087.7	1087.7	1088.4	1088.4
7.5°	1087.7	1087.0	1085.6	1084.9	1083.5	1083.5	1083.5	1083.5
10°	1085.6	1084.9	1083.5	1082.8	1082.1	1082.1	1082.1	1082.1
12.5°	1091.2	1089.1	1087.7	1087.0	1087.0	1087.0	1087.0	1087.0
15°	1106.1	1101.1	1097.6	1097.6	1098.3	1099.7	1099.7	1101.1
17.5°	1124.5	1118.8	1115.3	1112.4	1113.9	1116.0	1117.4	1118.8
20°	1146.4	1143.5	1138.6	1135.8	1135.8	1138.6	1140.0	1140.7
22.5°	1176.8	1174.6	1172.5	1169.0	1169.0	1170.4	1173.2	1173.2
25°	1222.0	1220.6	1219.2	1216.3	1215.6	1215.6	1217.0	1218.5
27.5°	1278.5	1279.2	1277.8	1277.1	1275.0	1274.3	1276.4	1275.7
30°	1354.2	1357.7	1361.2	1358.4	1354.9	1352.7	1350.6	1347.8
32.5°	1456.6	1452.4	1449.6	1444.6	1438.3	1432.6	1428.4	1423.4
35°	1553.5	1546.4	1543.6	1547.8	1547.1	1543.6	1538.6	1534.4
37.5°	1672.2	1670.8	1672.2	1680.0	1678.6	1682.1	1672.2	1671.5
40°	1822.0	1823.5	1833.3	1842.5	1847.5	1852.4	1846.8	1841.1
42.5°	1995.9	1995.2	1998.7	2011.5	2019.9	2025.6	2013.6	2012.2
45°	2179.7	2174.7	2177.5	2188.1	2196.6	2203.0	2189.6	2189.6
47.5°	2381.8	2373.3	2364.1	2376.1	2381.1	2385.3	2374.7	2371.2
50°	2607.3	2589.6	2569.8	2574.7	2574.7	2573.3	2559.9	2559.2
52.5°	2865.9	2833.4	2797.4	2783.9	2776.2	2767.7	2744.4	2733.1
55°	3163.5	3114.7	3058.2	3023.5	3005.2	2981.8	2943.0	2932.4
57.5°	3511.2	3434.9	3337.3	3294.9	3253.9	3215.8	3172.7	3160.7
60°	3923.3	3810.9	3681.5	3603.1	3558.6	3521.8	3477.3	3475.2
62.5°	4382.7	4205.3	4059.0	3988.3	3955.8	3923.3	3880.8	3886.5
65°	4849.8	4664.6	4527.5	4470.3	4439.9	4413.0	4370.6	4377.0
67.5°	5310.6	5140.3	4989.8	4931.1	4897.2	4863.3	4825.1	4831.4
70°	5641.4	5430.1	5260.5	5130.4	5049.1	4957.3	4897.9	4883.0
72.5°	5546.7	5220.9	4951.6	4693.6	4542.4	4419.4	4336.0	4300.0
75°	4800.3	4355.1	4008.8	3692.1	3514.0	3369.1	3263.8	3198.1
77.5°	3564.9	3064.5	2655.3	2290.6	2002.3	1808.6	1672.2	1583.9
80°	1951.4	1484.2	1084.9	762.6	560.5	465.8	411.3	385.2
82.5°	607.8	392.3	289.1	249.5	231.8	221.9	205.7	179.5
85°	193.7	169.6	157.6	150.5	143.5	125.1	86.2	78.5
87.5°	74.9	77.0	76.3	72.1	73.5	53.0	42.4	37.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)