

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: P299831

Luminaire Tested: **GLNA-AF-03-LED-E1-5WQ-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299831  
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-7050  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(3) 70 CRI, 5000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 19074.2 lumens  
Efficiency: N/A  
Efficacy: 114.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B5 - U0 - G3

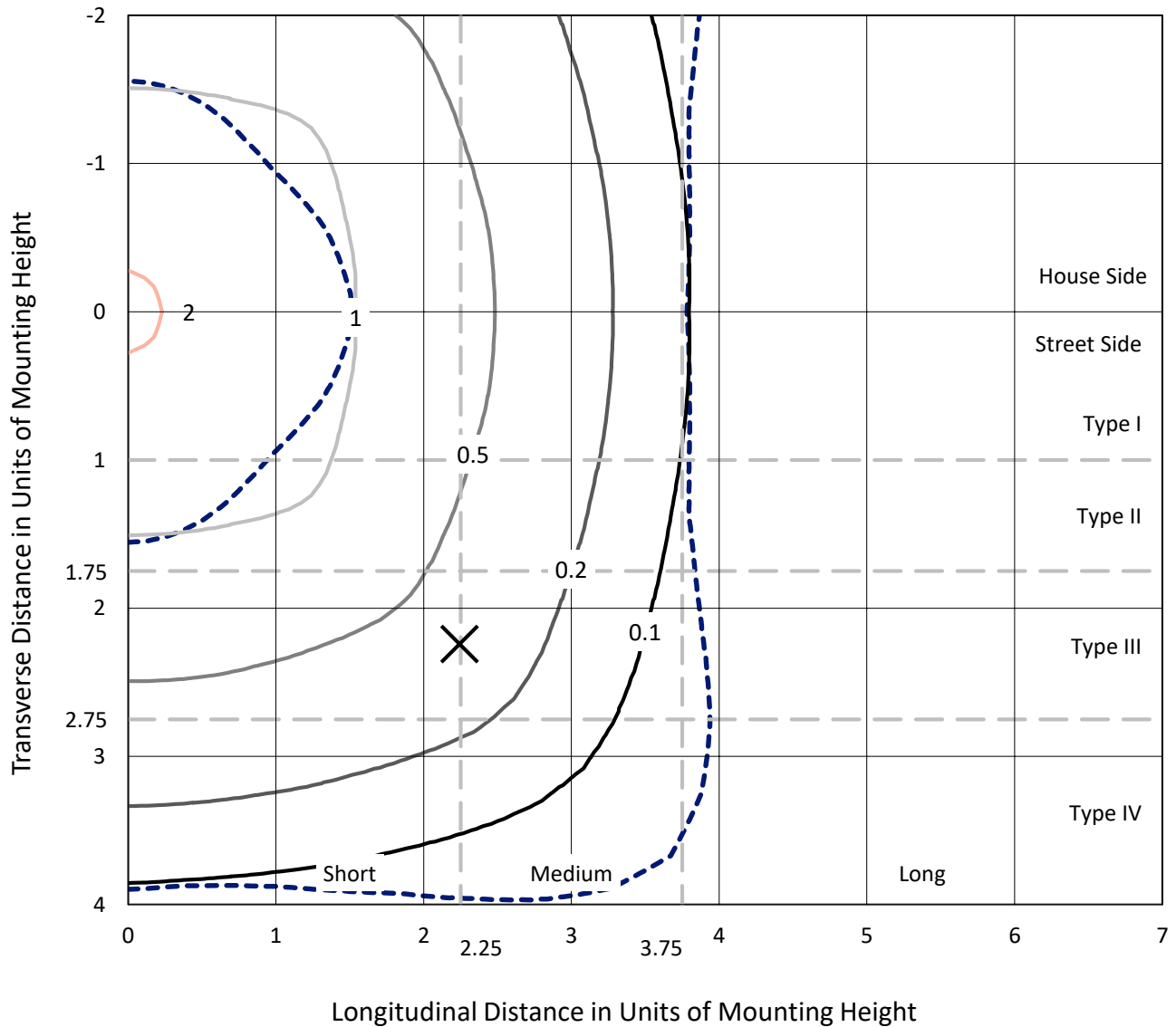
Input Watts (W): 166  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P299831  
 CATALOG NUMBER: GLNA-AF-03-LED-E1-5WQ-7050

### Iso-Footcandle Lines of Horizontal Illumination

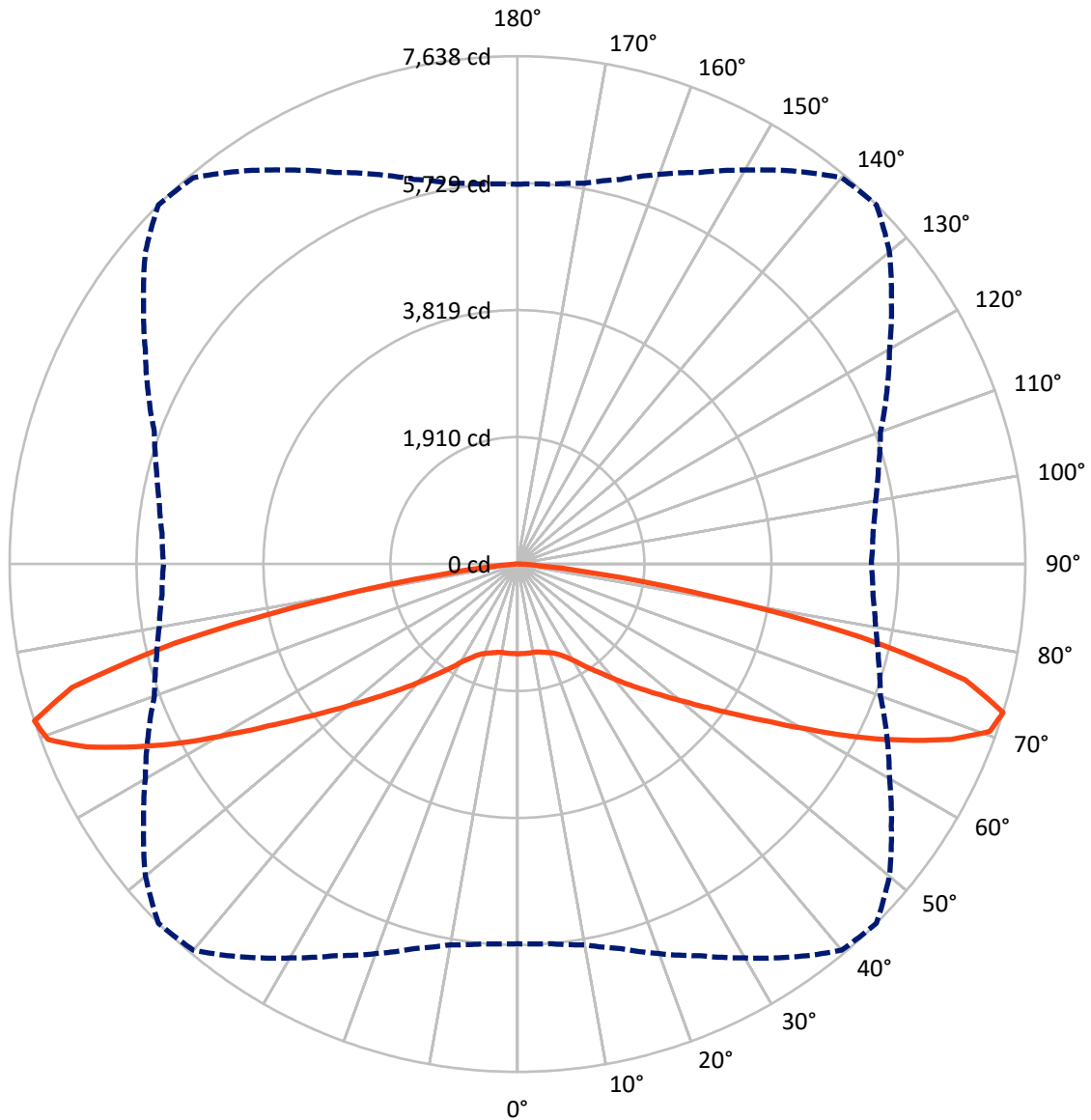
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.2 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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CATALOG NUMBER: GLNA-AF-03-LED-E1-5WQ-7050

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	9537.1	0.0	9537.1
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	9537.1	0.0	9537.1
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	19074.2	0.0	19074.2
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	129.0	0.7
10°-20°	391.7	2.1
20°-30°	715.8	3.8
30°-40°	1234.3	6.5
40°-50°	2109.9	11.1
50°-60°	3419.9	17.9
60°-70°	5673.6	29.7
70°-80°	4997.1	26.2
80°-90°	402.9	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°	19074.2	100.0
0°-180°	19074.2	100.0



REPORT NUMBER: P299831

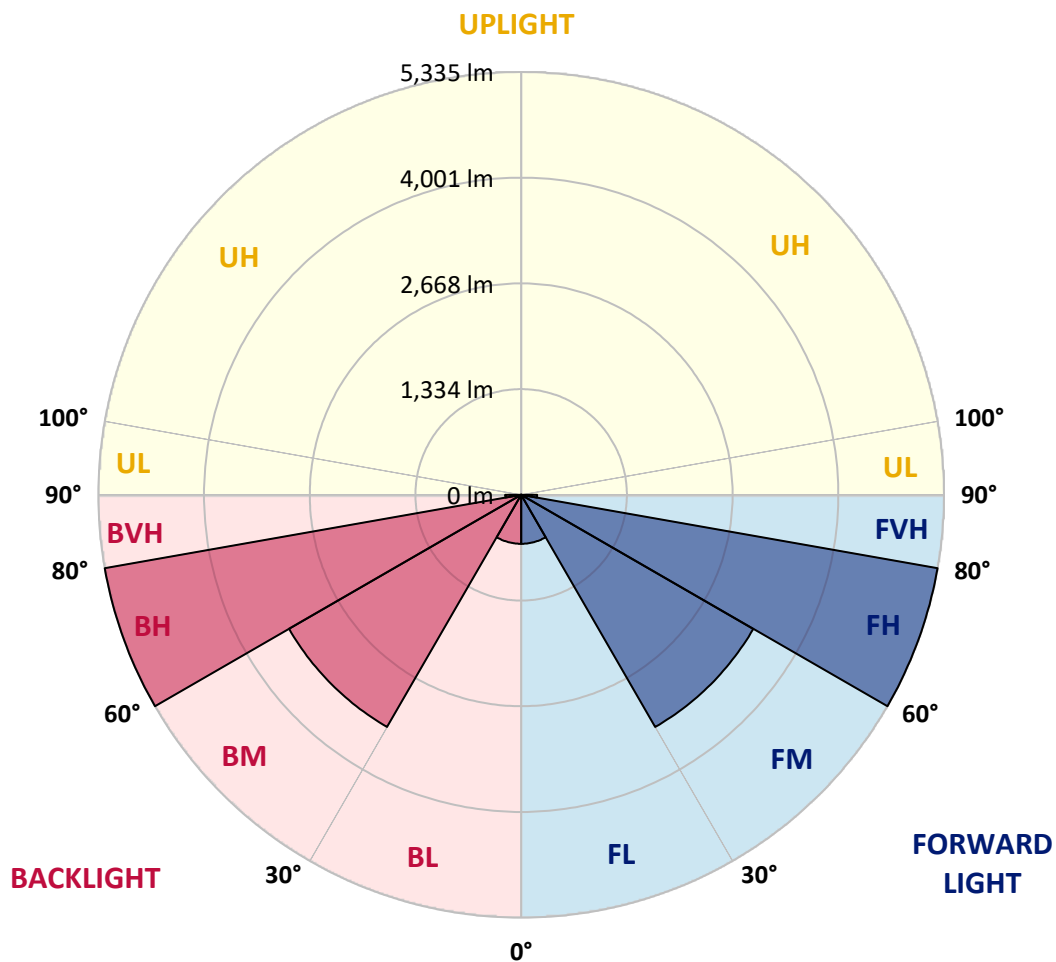
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	618.3	3.2			
FM	(30°-60°)	3382.1	17.7			
FH	(60°-80°)	5335.3	28.0			G3/7500
FVH	(80°-90°)	201.5	1.1			G2/225
BL	(0°-30°)	618.3	3.2	B2/1000		
BM	(30°-60°)	3382.1	17.7	B3/5000		
BH	(60°-80°)	5335.3	28.0	B5		G3/7500
BVH	(80°-90°)	201.5	1.1			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G3**

Type V Short



REPORT NUMBER: P299831

CATALOG NUMBER: GLNA-AF-03-LED-E1-5WQ-7050

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1350.8	1350.8	1350.8	1350.8	1350.8	1350.8	1350.8	1350.8	1350.8	1350.8	1350.8
2.5°	1350.8	1351.6	1352.5	1351.6	1351.6	1350.8	1349.9	1350.8	1349.9	1348.1	1349.0
5°	1355.1	1356.9	1356.9	1355.1	1356.0	1355.1	1353.4	1354.2	1352.5	1349.9	1349.9
7.5°	1360.4	1361.2	1361.2	1359.5	1360.4	1358.6	1356.9	1356.0	1354.2	1350.8	1348.1
10°	1368.2	1369.1	1368.2	1366.5	1366.5	1363.9	1359.5	1357.7	1354.2	1349.0	1346.4
12.5°	1377.0	1377.9	1377.0	1375.2	1374.4	1370.0	1366.5	1363.9	1361.2	1356.9	1352.5
15°	1389.2	1391.0	1389.2	1385.7	1383.1	1379.6	1377.9	1378.7	1379.6	1376.1	1371.7
17.5°	1412.0	1412.9	1410.2	1402.4	1398.9	1395.4	1395.4	1397.1	1399.7	1398.0	1393.6
20°	1454.0	1451.4	1445.2	1435.6	1431.2	1425.1	1424.2	1425.1	1425.1	1424.2	1420.7
22.5°	1506.5	1504.7	1496.8	1484.6	1478.5	1475.0	1469.7	1465.4	1464.5	1461.9	1458.4
25°	1569.5	1568.6	1559.0	1548.5	1544.1	1539.7	1535.3	1529.2	1524.0	1517.8	1514.3
27.5°	1649.9	1646.4	1632.4	1627.2	1621.1	1618.5	1612.3	1605.3	1601.0	1593.1	1588.7
30°	1738.3	1738.3	1726.9	1725.2	1725.2	1719.1	1712.1	1699.8	1691.9	1684.1	1681.4
32.5°	1826.7	1827.5	1816.2	1819.7	1822.3	1826.7	1828.4	1824.0	1818.8	1817.9	1812.7
35°	1954.4	1950.9	1939.5	1942.1	1941.3	1940.4	1940.4	1950.0	1951.8	1953.5	1943.0
37.5°	2112.7	2112.7	2101.4	2101.4	2096.1	2090.9	2083.9	2090.0	2099.6	2102.2	2095.2
40°	2293.8	2299.9	2286.0	2285.1	2286.8	2270.2	2262.3	2272.0	2278.1	2288.6	2280.7
42.5°	2507.3	2502.9	2488.9	2487.2	2477.5	2472.3	2465.3	2473.2	2482.8	2489.8	2492.4
45°	2712.0	2708.5	2692.8	2692.8	2683.1	2678.8	2682.3	2695.4	2699.8	2709.4	2719.0
47.5°	2914.1	2909.7	2899.2	2903.6	2904.5	2912.3	2923.7	2936.0	2948.2	2961.3	2965.7
50°	3120.5	3121.4	3110.0	3120.5	3133.7	3155.5	3186.2	3206.3	3231.7	3248.3	3253.5
52.5°	3308.6	3312.1	3324.4	3348.9	3375.1	3418.0	3470.5	3519.5	3561.5	3589.5	3587.7
55°	3534.3	3539.6	3569.3	3611.3	3654.2	3718.9	3796.8	3883.4	3953.4	3993.6	3968.3
57.5°	3823.0	3834.4	3867.7	3924.5	3988.4	4072.4	4179.1	4309.5	4417.9	4472.2	4431.1
60°	4219.3	4226.3	4266.6	4329.6	4406.6	4510.7	4653.3	4828.2	4981.3	5053.1	5005.8
62.5°	4741.6	4754.7	4787.1	4851.0	4929.7	5047.8	5221.9	5440.6	5631.3	5731.1	5624.3
65°	5365.4	5407.4	5434.5	5499.2	5572.7	5697.8	5879.8	6114.2	6319.0	6384.6	6261.2
67.5°	5983.0	6019.8	6067.0	6141.4	6215.7	6356.6	6525.4	6752.9	6977.7	7037.2	6845.6
70°	6253.3	6274.3	6347.8	6449.3	6591.9	6758.1	6953.2	7208.7	7486.9	7535.9	7292.7
72.5°	5711.8	5732.8	5815.0	5987.4	6235.8	6500.0	6840.4	7215.7	7583.1	7638.2	7303.1
75°	4320.0	4285.8	4407.4	4635.8	4970.8	5339.1	5815.0	6353.1	6884.1	6953.2	6553.4
77.5°	2232.6	2228.2	2320.1	2603.5	3003.3	3422.4	3946.4	4554.4	5074.1	5284.0	4958.6
80°	629.0	636.0	679.7	820.6	1054.2	1356.9	1766.3	2335.8	2761.0	2977.9	2796.0
82.5°	246.7	266.0	282.6	308.8	339.4	384.1	512.7	762.9	1023.6	1223.0	1001.7
85°	88.4	94.5	133.9	158.3	161.0	169.7	193.3	225.7	272.1	324.6	266.8
87.5°	33.2	36.7	42.9	70.9	70.0	63.9	77.9	81.4	61.2	56.0	69.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P299831

CATALOG NUMBER: GLNA-AF-03-LED-E1-5WQ-7050

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1350.8	1350.8	1350.8	1350.8	1350.8	1350.8	1350.8	1350.8
2.5°	1347.3	1348.1	1348.1	1349.0	1349.9	1349.9	1351.6	1351.6
5°	1348.1	1348.1	1346.4	1347.3	1346.4	1346.4	1347.3	1347.3
7.5°	1346.4	1345.5	1343.8	1342.9	1341.1	1341.1	1341.1	1341.1
10°	1343.8	1342.9	1341.1	1340.3	1339.4	1339.4	1339.4	1339.4
12.5°	1350.8	1348.1	1346.4	1345.5	1345.5	1345.5	1345.5	1345.5
15°	1369.1	1363.0	1358.6	1358.6	1359.5	1361.2	1361.2	1363.0
17.5°	1391.9	1384.9	1380.5	1377.0	1378.7	1381.4	1383.1	1384.9
20°	1419.0	1415.5	1409.4	1405.9	1405.9	1409.4	1411.1	1412.0
22.5°	1456.6	1454.0	1451.4	1447.0	1447.0	1448.7	1452.2	1452.2
25°	1512.6	1510.8	1509.1	1505.6	1504.7	1504.7	1506.5	1508.2
27.5°	1582.6	1583.5	1581.7	1580.8	1578.2	1577.3	1580.0	1579.1
30°	1676.2	1680.6	1684.9	1681.4	1677.1	1674.4	1671.8	1668.3
32.5°	1803.0	1797.8	1794.3	1788.2	1780.3	1773.3	1768.0	1761.9
35°	1922.9	1914.1	1910.6	1915.9	1915.0	1910.6	1904.5	1899.3
37.5°	2069.9	2068.1	2069.9	2079.5	2077.7	2082.1	2069.9	2069.0
40°	2255.3	2257.1	2269.3	2280.7	2286.8	2293.0	2286.0	2279.0
42.5°	2470.5	2469.7	2474.0	2489.8	2500.3	2507.3	2492.4	2490.7
45°	2698.0	2691.9	2695.4	2708.5	2719.0	2726.9	2710.2	2710.2
47.5°	2948.2	2937.7	2926.3	2941.2	2947.3	2952.6	2939.5	2935.1
50°	3227.3	3205.4	3180.9	3187.0	3187.0	3185.3	3168.7	3167.8
52.5°	3547.5	3507.2	3462.6	3446.0	3436.4	3425.9	3397.0	3383.0
55°	3915.8	3855.4	3785.4	3742.6	3719.8	3690.9	3642.8	3629.7
57.5°	4346.2	4251.7	4131.0	4078.5	4027.8	3980.5	3927.1	3912.3
60°	4856.2	4717.1	4557.0	4459.9	4404.8	4359.3	4304.2	4301.6
62.5°	5424.9	5205.3	5024.2	4936.7	4896.5	4856.2	4803.7	4810.7
65°	6003.1	5773.9	5604.2	5533.4	5495.7	5462.5	5410.0	5417.9
67.5°	6573.5	6362.7	6176.4	6103.7	6061.8	6019.8	5972.5	5980.4
70°	6983.0	6721.4	6511.4	6350.4	6249.8	6136.1	6062.6	6044.3
72.5°	6865.7	6462.4	6129.1	5809.8	5622.6	5470.4	5367.1	5322.5
75°	5941.9	5390.8	4962.1	4570.2	4349.7	4170.4	4040.0	3958.6
77.5°	4412.7	3793.3	3286.8	2835.4	2478.4	2238.7	2069.9	1960.5
80°	2415.4	1837.2	1342.9	944.0	693.7	576.5	509.2	476.8
82.5°	752.4	485.5	357.8	308.8	286.9	274.7	254.6	222.2
85°	239.7	210.0	195.1	186.3	177.6	154.8	106.7	97.1
87.5°	92.7	95.4	94.5	89.2	91.0	65.6	52.5	46.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)