

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: P299826

Luminaire Tested: **GLNA-AF-02-LED-E1-5WQ-7060**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299826  
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-7060  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(2) 70 CRI, 5700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

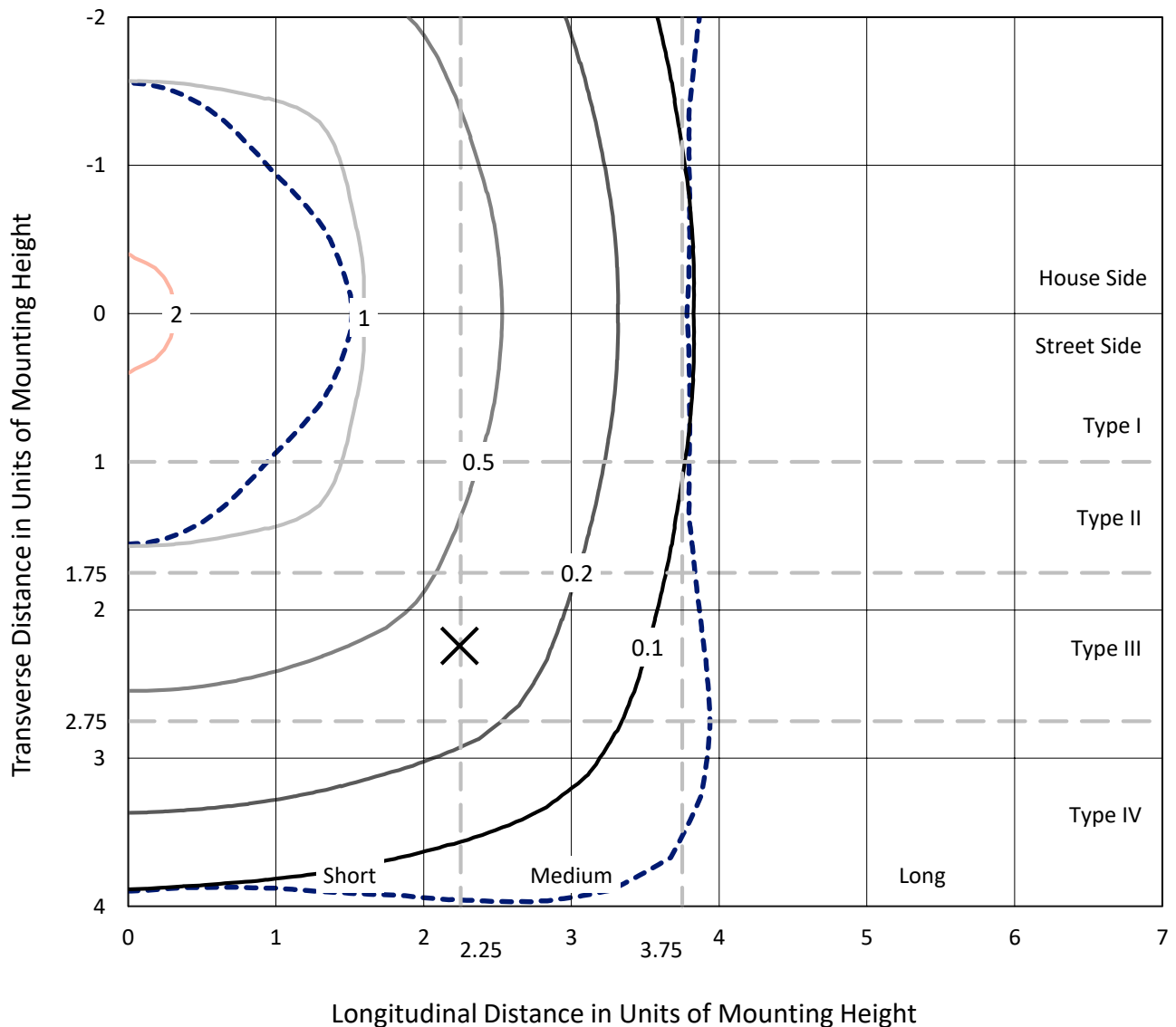
Lumens per Lamp: N/A  
Luminaire Lumens: 12782.8 lumens  
Efficiency: N/A  
Efficacy: 113.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B4 - U0 - G2  
  
Input Watts (W): 113  
Input Voltage (V): NR  
Input Current (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

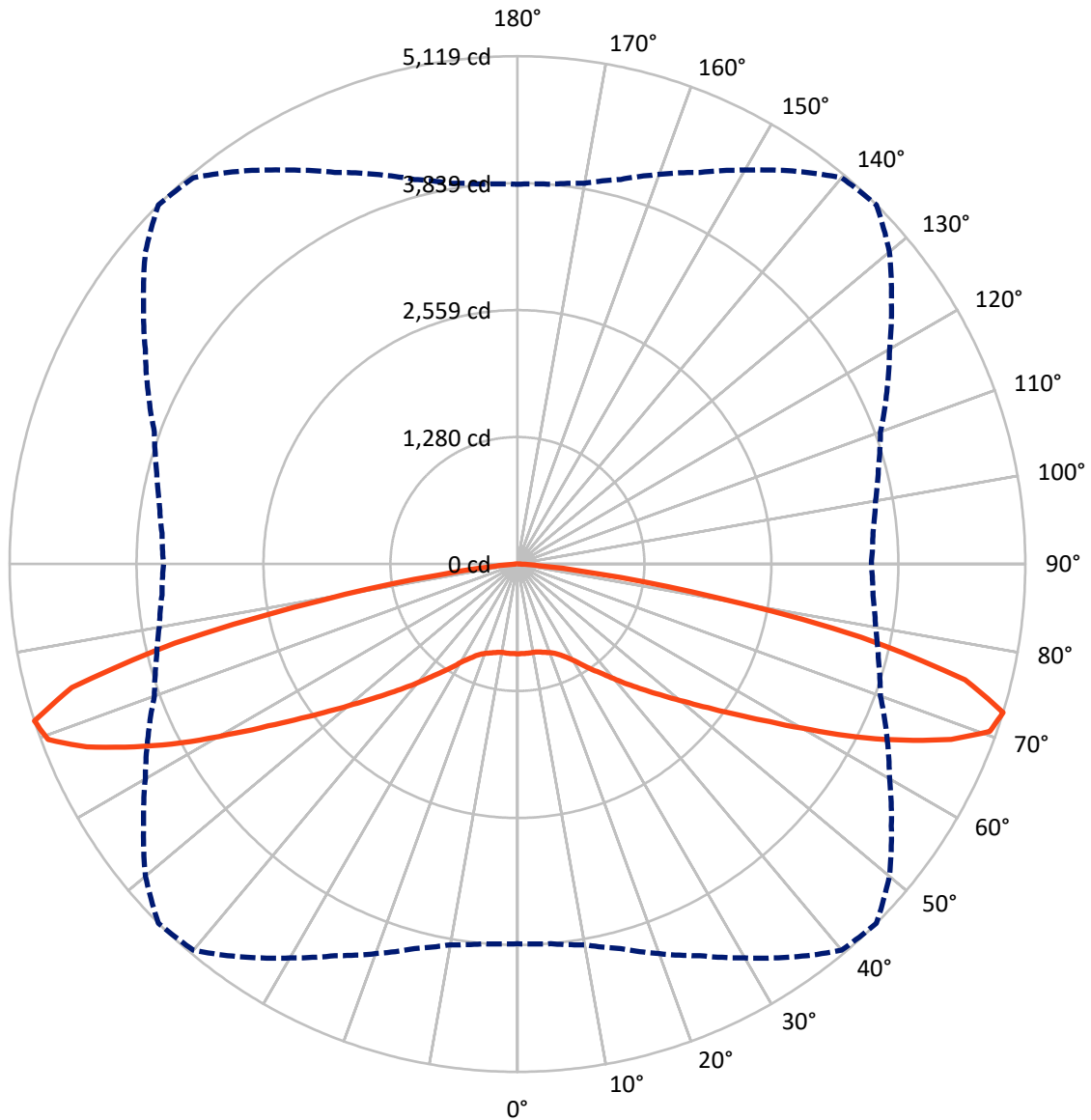
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 2.3 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	6391.4	0.0	6391.4
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	6391.4	0.0	6391.4
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	12782.8	0.0	12782.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.4	0.7
10°-20°	262.5	2.1
20°-30°	479.7	3.8
30°-40°	827.1	6.5
40°-50°	1414.0	11.1
50°-60°	2291.9	17.9
60°-70°	3802.2	29.7
70°-80°	3348.8	26.2
80°-90°	270.0	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°	12782.8	100.0
0°-180°	12782.8	100.0



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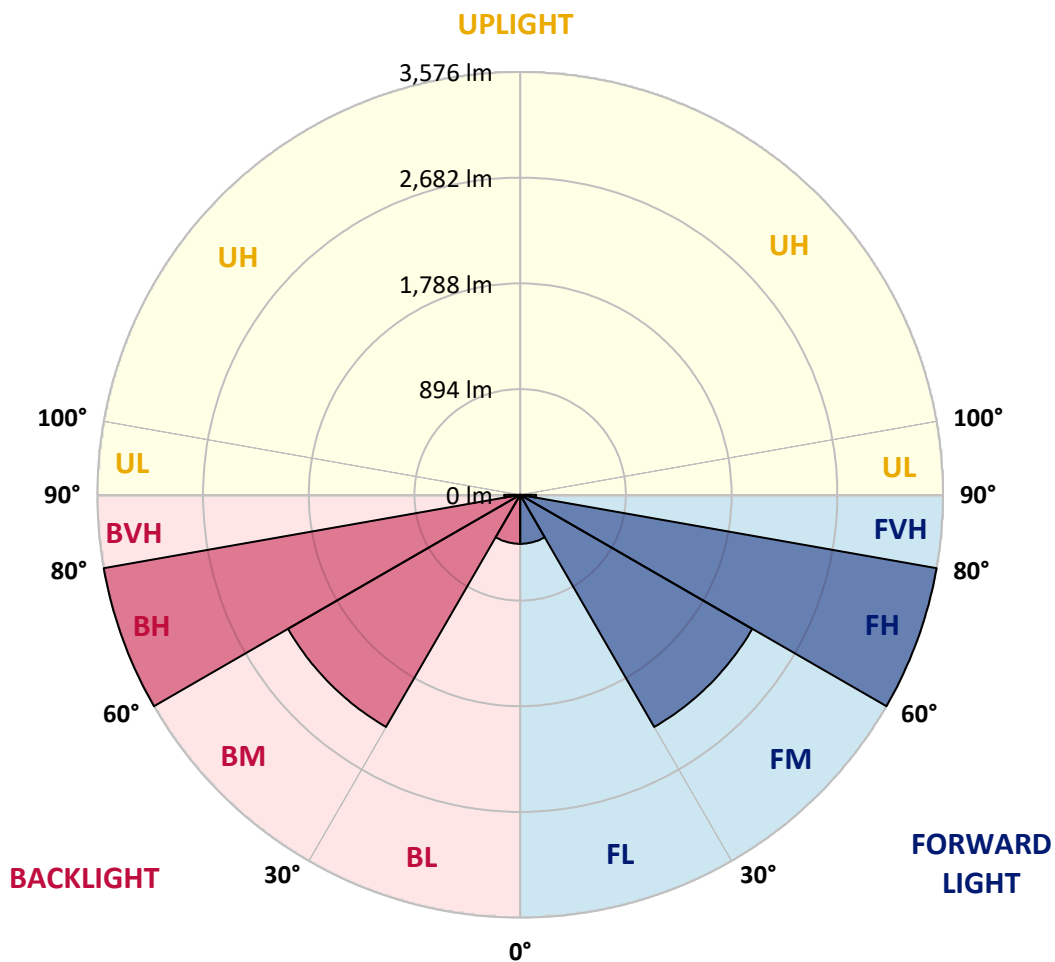
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	414.3	3.2			
FM	(30°-60°)	2266.5	17.7			
FH	(60°-80°)	3575.5	28.0			G2/5000
FVH	(80°-90°)	135.0	1.1			G2/225
BL	(0°-30°)	414.3	3.2	B1/500		
BM	(30°-60°)	2266.5	17.7	B2/2500		
BH	(60°-80°)	3575.5	28.0	B4/5000		G2/5000
BVH	(80°-90°)	135.0	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°	905.2	905.2	905.2	905.2	905.2	905.2	905.2	905.2	905.2	905.2	905.2
2.5°	905.2	905.8	906.4	905.8	905.8	905.2	904.6	905.2	904.6	903.5	904.0
5°	908.2	909.3	909.3	908.2	908.7	908.2	907.0	907.6	906.4	904.6	904.6
7.5°	911.7	912.3	912.3	911.1	911.7	910.5	909.3	908.7	907.6	905.2	903.5
10°	916.9	917.5	916.9	915.8	915.8	914.0	911.1	909.9	907.6	904.0	902.3
12.5°	922.8	923.4	922.8	921.6	921.1	918.1	915.8	914.0	912.3	909.3	906.4
15°	931.0	932.2	931.0	928.7	926.9	924.6	923.4	924.0	924.6	922.2	919.3
17.5°	946.3	946.8	945.1	939.8	937.5	935.1	935.1	936.3	938.1	936.9	933.9
20°	974.4	972.6	968.5	962.1	959.2	955.1	954.5	955.1	955.1	954.5	952.1
22.5°	1009.6	1008.4	1003.1	994.9	990.8	988.5	985.0	982.0	981.4	979.7	977.3
25°	1051.8	1051.2	1044.8	1037.7	1034.8	1031.9	1028.9	1024.8	1021.3	1017.2	1014.9
27.5°	1105.7	1103.4	1094.0	1090.5	1086.4	1084.6	1080.5	1075.8	1072.9	1067.6	1064.7
30°	1164.9	1164.9	1157.3	1156.2	1156.2	1152.0	1147.4	1139.1	1133.9	1128.6	1126.8
32.5°	1224.2	1224.7	1217.1	1219.5	1221.2	1224.2	1225.3	1222.4	1218.9	1218.3	1214.8
35°	1309.8	1307.4	1299.8	1301.5	1301.0	1300.4	1300.4	1306.8	1308.0	1309.2	1302.1
37.5°	1415.9	1415.9	1408.3	1408.3	1404.7	1401.2	1396.5	1400.6	1407.1	1408.8	1404.1
40°	1537.2	1541.3	1532.0	1531.4	1532.5	1521.4	1516.1	1522.6	1526.7	1533.7	1528.4
42.5°	1680.3	1677.4	1668.0	1666.8	1660.4	1656.8	1652.1	1657.4	1663.9	1668.6	1670.3
45°	1817.5	1815.1	1804.6	1804.6	1798.1	1795.2	1797.5	1806.3	1809.3	1815.7	1822.2
47.5°	1952.9	1950.0	1942.9	1945.9	1946.5	1951.7	1959.4	1967.6	1975.8	1984.6	1987.5
50°	2091.3	2091.9	2084.2	2091.3	2100.1	2114.7	2135.2	2148.7	2165.7	2176.9	2180.4
52.5°	2217.3	2219.7	2227.9	2244.3	2261.9	2290.6	2325.8	2358.6	2386.8	2405.5	2404.3
55°	2368.6	2372.1	2392.0	2420.2	2448.9	2492.3	2544.5	2602.5	2649.4	2676.4	2659.4
57.5°	2562.1	2569.7	2592.0	2630.1	2672.9	2729.1	2800.7	2888.0	2960.7	2997.1	2969.5
60°	2827.6	2832.3	2859.3	2901.5	2953.1	3022.9	3118.4	3235.7	3338.3	3386.4	3354.7
62.5°	3177.7	3186.4	3208.1	3250.9	3303.7	3382.9	3499.5	3646.1	3773.9	3840.7	3769.2
65°	3595.7	3623.8	3642.0	3685.4	3734.6	3818.5	3940.4	4097.5	4234.7	4278.7	4196.0
67.5°	4009.6	4034.2	4065.9	4115.7	4165.5	4259.9	4373.1	4525.5	4676.2	4716.1	4587.7
70°	4190.8	4204.8	4254.1	4322.1	4417.6	4529.0	4659.8	4831.0	5017.4	5050.2	4887.3
72.5°	3827.8	3841.9	3897.0	4012.5	4179.0	4356.1	4584.1	4835.7	5081.9	5118.8	4894.3
75°	2895.1	2872.2	2953.7	3106.7	3331.3	3578.1	3897.0	4257.6	4613.5	4659.8	4391.8
77.5°	1496.2	1493.3	1554.8	1744.8	2012.7	2293.5	2644.7	3052.2	3400.4	3541.2	3323.1
80°	421.5	426.2	455.5	549.9	706.5	909.3	1183.7	1565.4	1850.3	1995.7	1873.8
82.5°	165.3	178.2	189.4	207.0	227.5	257.4	343.6	511.2	686.0	819.6	671.3
85°	59.2	63.3	89.7	106.1	107.9	113.7	129.6	151.3	182.3	217.5	178.8
87.5°	22.3	24.6	28.7	47.5	46.9	42.8	52.2	54.5	41.0	37.5	46.3
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°	905.2	905.2	905.2	905.2	905.2	905.2	905.2	905.2
2.5°	902.9	903.5	903.5	904.0	904.6	904.6	905.8	905.8
5°	903.5	903.5	902.3	902.9	902.3	902.3	902.9	902.9
7.5°	902.3	901.7	900.5	899.9	898.8	898.8	898.8	898.8
10°	900.5	899.9	898.8	898.2	897.6	897.6	897.6	897.6
12.5°	905.2	903.5	902.3	901.7	901.7	901.7	901.7	901.7
15°	917.5	913.4	910.5	910.5	911.1	912.3	912.3	913.4
17.5°	932.8	928.1	925.2	922.8	924.0	925.7	926.9	928.1
20°	951.0	948.6	944.5	942.2	942.2	944.5	945.7	946.3
22.5°	976.2	974.4	972.6	969.7	969.7	970.9	973.2	973.2
25°	1013.7	1012.5	1011.3	1009.0	1008.4	1008.4	1009.6	1010.8
27.5°	1060.6	1061.2	1060.0	1059.4	1057.7	1057.1	1058.8	1058.2
30°	1123.3	1126.3	1129.2	1126.8	1123.9	1122.1	1120.4	1118.0
32.5°	1208.3	1204.8	1202.5	1198.4	1193.1	1188.4	1184.9	1180.8
35°	1288.7	1282.8	1280.4	1284.0	1283.4	1280.4	1276.3	1272.8
37.5°	1387.1	1386.0	1387.1	1393.6	1392.4	1395.4	1387.1	1386.6
40°	1511.4	1512.6	1520.8	1528.4	1532.5	1536.6	1532.0	1527.3
42.5°	1655.7	1655.1	1658.0	1668.6	1675.6	1680.3	1670.3	1669.1
45°	1808.1	1804.0	1806.3	1815.1	1822.2	1827.4	1816.3	1816.3
47.5°	1975.8	1968.7	1961.1	1971.1	1975.2	1978.7	1969.9	1967.0
50°	2162.8	2148.1	2131.7	2135.8	2135.8	2134.7	2123.5	2122.9
52.5°	2377.4	2350.4	2320.5	2309.4	2302.9	2295.9	2276.5	2267.2
55°	2624.2	2583.8	2536.8	2508.1	2492.9	2473.5	2441.3	2432.5
57.5°	2912.7	2849.3	2768.4	2733.3	2699.2	2667.6	2631.8	2621.9
60°	3254.5	3161.2	3053.9	2988.9	2951.9	2921.4	2884.5	2882.8
62.5°	3635.5	3488.4	3367.0	3308.4	3281.4	3254.5	3219.3	3224.0
65°	4023.1	3869.5	3755.7	3708.2	3683.0	3660.8	3625.6	3630.9
67.5°	4405.3	4264.0	4139.2	4090.5	4062.4	4034.2	4002.6	4007.8
70°	4679.7	4504.4	4363.7	4255.8	4188.4	4112.2	4062.9	4050.6
72.5°	4601.2	4330.9	4107.5	3893.5	3768.0	3666.0	3596.8	3566.9
75°	3982.0	3612.7	3325.4	3062.7	2915.0	2794.8	2707.5	2652.9
77.5°	2957.2	2542.1	2202.7	1900.1	1660.9	1500.3	1387.1	1313.9
80°	1618.7	1231.2	899.9	632.6	464.9	386.4	341.2	319.5
82.5°	504.2	325.4	239.8	207.0	192.3	184.1	170.6	148.9
85°	160.6	140.7	130.7	124.9	119.0	103.8	71.5	65.1
87.5°	62.1	63.9	63.3	59.8	61.0	44.0	35.2	31.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)