

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: P299581

Luminaire Tested: **GLNA-AF-02-LED-E1-5MQ-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299581  
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-02-LED-E1-5MQ-7027  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(2) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

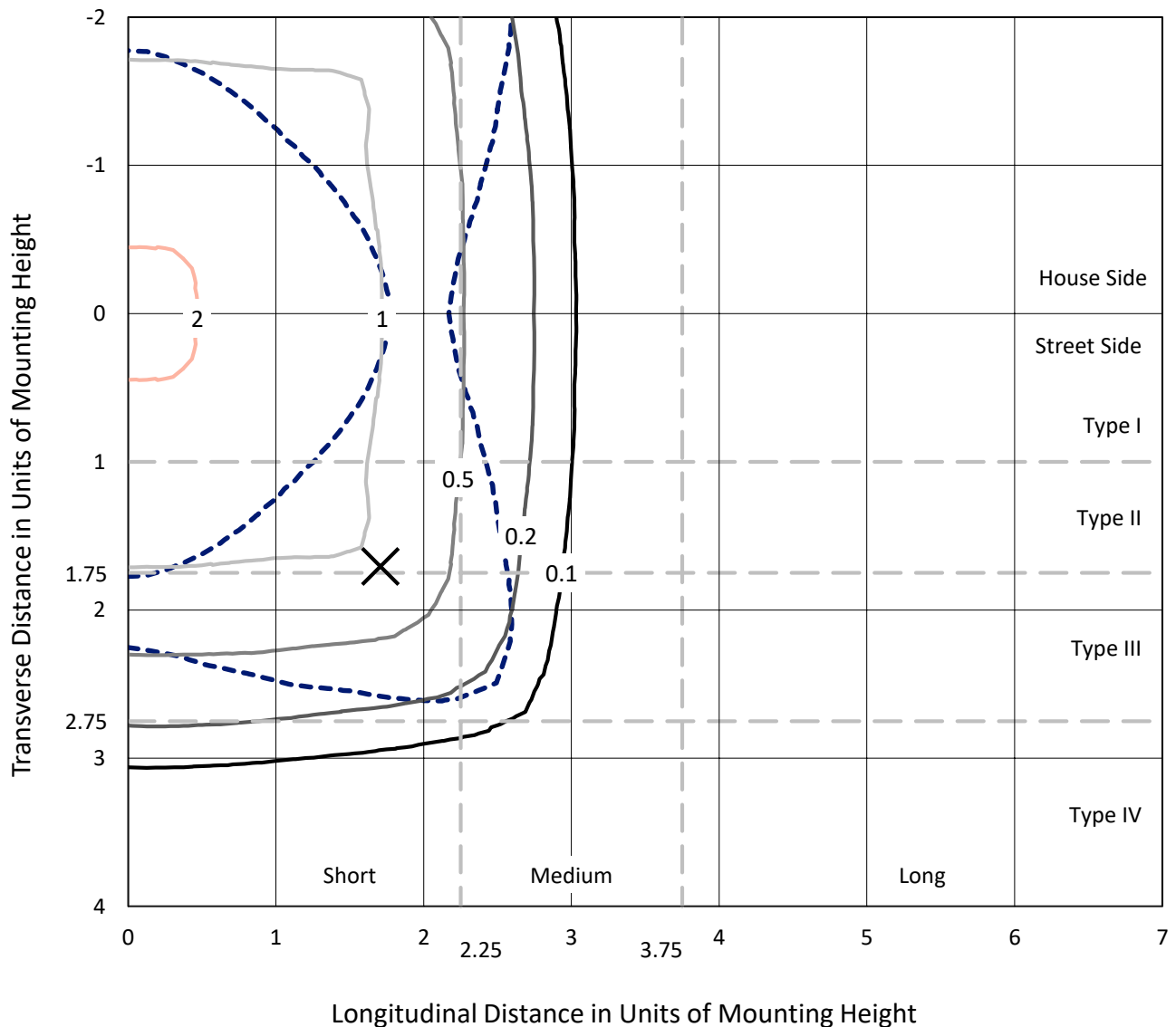
Lumens per Lamp: N/A  
Luminaire Lumens: 11077.6 lumens  
Efficiency: N/A  
Efficacy: 98.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B4 - U0 - G2  
  
Input Watts (W): 113  
Input Voltage (V): NR  
Input Current (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

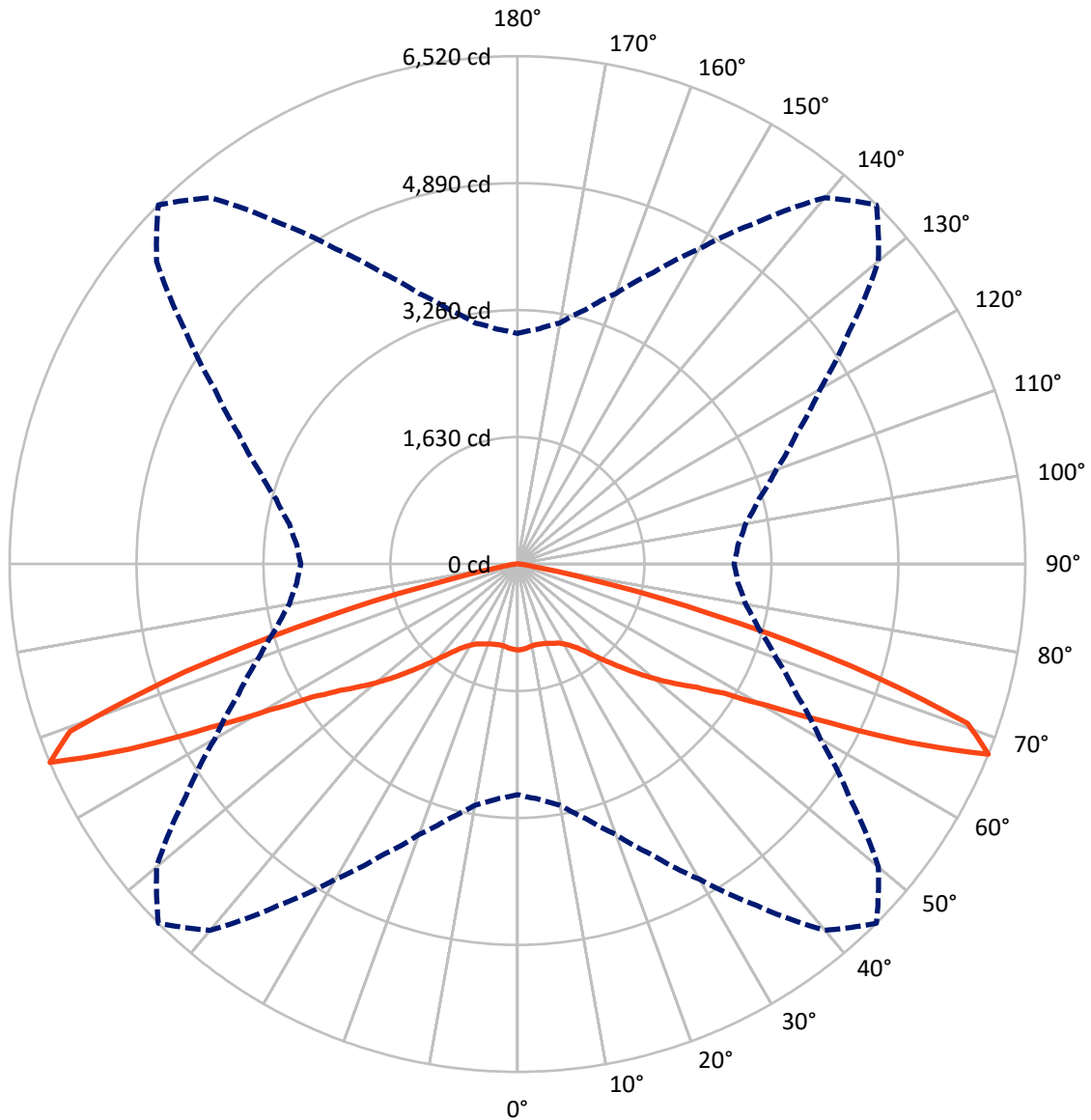
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 2.8 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	5538.8	0.0	5538.8
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	5538.8	0.0	5538.8
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	11077.6	0.0	11077.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	103.3	0.9
10°-20°	299.8	2.7
20°-30°	509.7	4.6
30°-40°	833.2	7.5
40°-50°	1487.4	13.4
50°-60°	2507.8	22.6
60°-70°	3891.7	35.1
70°-80°	1367.4	12.3
80°-90°	77.3	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°	11077.6	100.0
0°-180°	11077.6	100.0



REPORT NUMBER: P299581

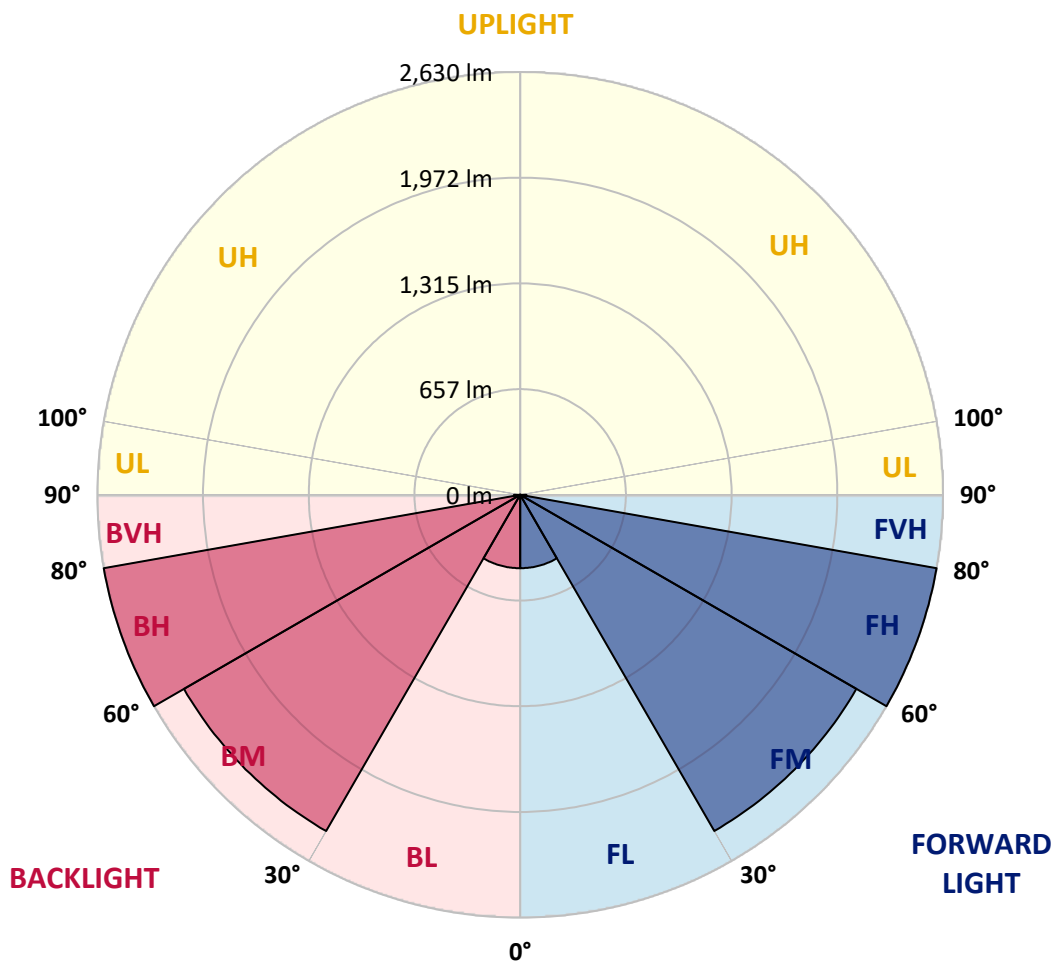
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	456.4	4.1			
FM	(30°-60°)	2414.2	21.8			
FH	(60°-80°)	2629.5	23.7			G2/5000
FVH	(80°-90°)	38.6	0.3			G1/100
BL	(0°-30°)	456.4	4.1	B1/500		
BM	(30°-60°)	2414.2	21.8	B2/2500		
BH	(60°-80°)	2629.5	23.7	B4/5000		G2/5000
BVH	(80°-90°)	38.6	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°	1103.9	1103.9	1103.9	1103.9	1103.9	1103.9	1103.9	1103.9	1103.9	1103.9	1103.9
2.5°	1099.8	1100.9	1100.9	1100.9	1100.4	1100.4	1099.3	1100.4	1099.8	1098.3	1098.8
5°	1090.7	1091.7	1091.7	1091.2	1092.7	1092.2	1090.7	1091.7	1091.2	1090.2	1090.7
7.5°	1077.4	1079.0	1079.0	1078.5	1080.0	1079.5	1078.5	1079.0	1079.0	1077.4	1077.4
10°	1062.7	1063.7	1063.7	1063.2	1065.7	1065.7	1065.2	1066.7	1067.2	1065.7	1064.7
12.5°	1048.9	1050.4	1050.4	1052.5	1055.0	1056.0	1058.6	1060.6	1062.7	1062.2	1060.1
15°	1040.8	1041.8	1043.8	1046.4	1050.4	1054.0	1058.1	1062.7	1066.7	1067.8	1064.7
17.5°	1035.7	1037.2	1040.2	1043.8	1049.4	1055.5	1061.6	1067.8	1073.4	1075.4	1071.8
20°	1034.1	1035.2	1038.2	1044.3	1052.0	1061.1	1069.8	1076.9	1084.6	1087.1	1084.6
22.5°	1037.2	1039.2	1042.8	1049.9	1060.1	1071.8	1082.0	1091.7	1101.4	1106.0	1102.4
25°	1050.9	1053.0	1057.6	1066.7	1077.9	1090.2	1101.9	1113.1	1121.8	1126.3	1123.8
27.5°	1076.4	1079.0	1084.6	1093.7	1106.0	1119.2	1131.9	1141.1	1148.2	1149.8	1146.7
30°	1114.6	1120.2	1126.8	1137.0	1151.3	1162.5	1175.2	1183.4	1192.1	1192.1	1189.5
32.5°	1174.2	1179.8	1187.0	1196.6	1207.8	1220.1	1231.3	1238.4	1247.6	1248.1	1242.0
35°	1263.4	1265.9	1272.0	1278.1	1288.3	1299.0	1308.7	1313.3	1320.9	1321.4	1315.8
37.5°	1381.1	1381.6	1385.6	1387.7	1396.8	1408.6	1417.7	1420.8	1427.9	1426.9	1421.3
40°	1518.1	1520.6	1522.2	1525.2	1534.9	1546.1	1555.8	1557.3	1565.0	1563.4	1556.3
42.5°	1676.5	1677.5	1686.2	1690.8	1700.0	1705.6	1717.8	1719.3	1728.5	1724.4	1716.3
45°	1854.3	1863.5	1871.6	1880.8	1890.5	1897.1	1906.8	1904.7	1910.9	1904.7	1900.2
47.5°	2041.3	2047.9	2066.2	2080.5	2096.3	2101.9	2115.6	2109.5	2115.6	2107.0	2105.5
50°	2247.1	2258.8	2274.6	2290.9	2307.7	2316.9	2334.7	2327.1	2335.2	2327.1	2322.5
52.5°	2449.8	2452.9	2487.5	2511.5	2534.9	2545.6	2556.3	2552.7	2553.2	2552.7	2548.1
55°	2642.4	2649.5	2684.2	2716.8	2757.5	2787.6	2805.9	2803.9	2799.3	2794.7	2787.1
57.5°	2859.4	2866.5	2906.3	2946.5	2992.9	3035.7	3072.9	3111.1	3125.8	3129.9	3113.1
60°	3152.8	3152.3	3205.3	3254.2	3320.4	3384.1	3465.6	3548.7	3643.9	3688.2	3629.7
62.5°	3451.4	3463.6	3540.0	3626.6	3763.1	3896.1	4046.4	4194.1	4344.9	4467.7	4337.2
65°	3415.7	3462.6	3576.2	3772.3	4024.5	4324.0	4648.0	4990.8	5300.6	5513.5	5274.6
67.5°	2960.3	3027.0	3142.6	3381.1	3696.4	4128.4	4672.4	5350.5	6138.6	6519.6	6047.4
70°	2145.7	2221.1	2342.3	2575.1	2887.4	3298.0	3889.0	4703.0	5746.3	6130.4	5610.3
72.5°	1067.8	1108.5	1183.4	1331.6	1568.0	1901.2	2437.1	3219.6	4142.6	4495.2	4019.9
75°	362.7	381.6	394.3	442.7	517.6	648.5	914.9	1407.5	2147.2	2574.1	2116.7
77.5°	209.4	209.9	218.5	227.2	239.9	254.2	289.9	380.5	658.2	934.8	681.1
80°	135.5	135.0	142.1	148.8	157.4	164.5	166.6	176.3	203.3	241.0	215.5
82.5°	70.3	79.0	94.8	103.4	119.7	122.8	118.7	115.1	121.8	126.3	129.4
85°	38.7	33.6	50.4	65.2	72.3	73.4	73.4	69.3	71.8	70.3	76.4
87.5°	17.8	16.3	19.9	32.1	34.1	29.0	30.6	27.0	19.4	18.8	21.4
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°	1103.9	1103.9	1103.9	1103.9	1103.9	1103.9	1103.9	1103.9
2.5°	1098.8	1099.3	1099.3	1100.9	1101.4	1102.4	1103.4	1103.9
5°	1090.2	1091.7	1090.7	1092.2	1092.2	1093.2	1093.2	1093.7
7.5°	1077.4	1079.0	1079.0	1079.0	1078.5	1080.0	1080.0	1080.0
10°	1064.2	1065.2	1064.7	1063.7	1062.7	1064.2	1063.7	1063.2
12.5°	1060.1	1057.6	1055.5	1054.5	1052.5	1053.0	1051.5	1051.5
15°	1062.7	1058.1	1054.5	1053.0	1050.9	1049.9	1048.9	1049.4
17.5°	1069.3	1063.7	1059.1	1056.5	1054.0	1052.5	1050.4	1050.9
20°	1081.0	1074.4	1067.8	1062.7	1058.1	1055.5	1054.0	1053.5
22.5°	1098.3	1088.6	1079.0	1071.3	1065.2	1061.6	1060.1	1059.1
25°	1118.2	1107.5	1096.3	1087.6	1081.5	1076.9	1073.9	1073.9
27.5°	1143.2	1134.5	1124.3	1114.1	1108.5	1103.9	1101.9	1100.9
30°	1184.9	1176.8	1168.6	1158.9	1151.8	1147.2	1143.7	1140.6
32.5°	1238.4	1231.8	1225.2	1218.0	1211.4	1205.3	1199.7	1197.1
35°	1313.8	1308.7	1304.1	1296.0	1293.4	1289.9	1286.8	1284.3
37.5°	1417.7	1415.7	1415.7	1407.0	1405.0	1403.5	1400.4	1400.9
40°	1554.3	1556.3	1553.7	1550.7	1549.2	1545.1	1545.1	1548.7
42.5°	1715.7	1717.3	1722.9	1717.8	1723.4	1718.3	1715.2	1717.8
45°	1903.2	1908.8	1920.0	1914.9	1918.5	1909.8	1899.1	1899.6
47.5°	2113.6	2118.7	2123.3	2119.7	2120.2	2106.0	2091.7	2088.1
50°	2332.1	2334.2	2336.7	2331.6	2332.7	2316.9	2300.6	2301.1
52.5°	2548.1	2557.8	2568.0	2554.3	2551.2	2533.4	2510.4	2501.3
55°	2795.2	2809.0	2797.3	2773.3	2749.4	2725.4	2695.4	2690.3
57.5°	3099.9	3076.4	3039.7	2994.4	2961.3	2927.7	2897.1	2884.4
60°	3523.7	3435.6	3369.3	3302.1	3259.8	3218.5	3178.3	3172.2
62.5°	4122.8	3970.5	3838.5	3699.4	3585.8	3497.2	3426.4	3406.5
65°	4873.7	4513.5	4201.2	3909.8	3656.7	3465.6	3345.4	3292.4
67.5°	5196.6	4485.5	3950.1	3536.4	3205.3	2974.0	2844.1	2779.4
70°	4566.5	3719.8	3137.6	2723.4	2421.8	2175.2	2057.6	1988.3
72.5°	3141.6	2366.3	1871.1	1527.3	1286.3	1080.0	998.5	992.4
75°	1410.6	934.3	643.9	496.2	417.7	363.2	346.4	333.7
77.5°	394.8	291.9	260.3	243.5	227.2	208.4	201.2	202.8
80°	192.1	181.4	174.2	163.5	148.8	133.0	125.8	128.9
82.5°	127.4	125.8	130.4	122.8	101.4	86.1	72.3	66.2
85°	77.4	78.5	80.0	80.5	68.3	47.9	32.6	36.7
87.5°	30.6	35.2	38.2	39.7	37.2	22.9	18.3	18.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)