

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: P299644

Luminaire Tested: **GLNA-AF-02-LED-E1-5MQ-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299644  
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-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(2) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10300.4 lumens  
Efficiency: N/A  
Efficacy: 121.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B3 - U0 - G2

Input Watts (W): 85  
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

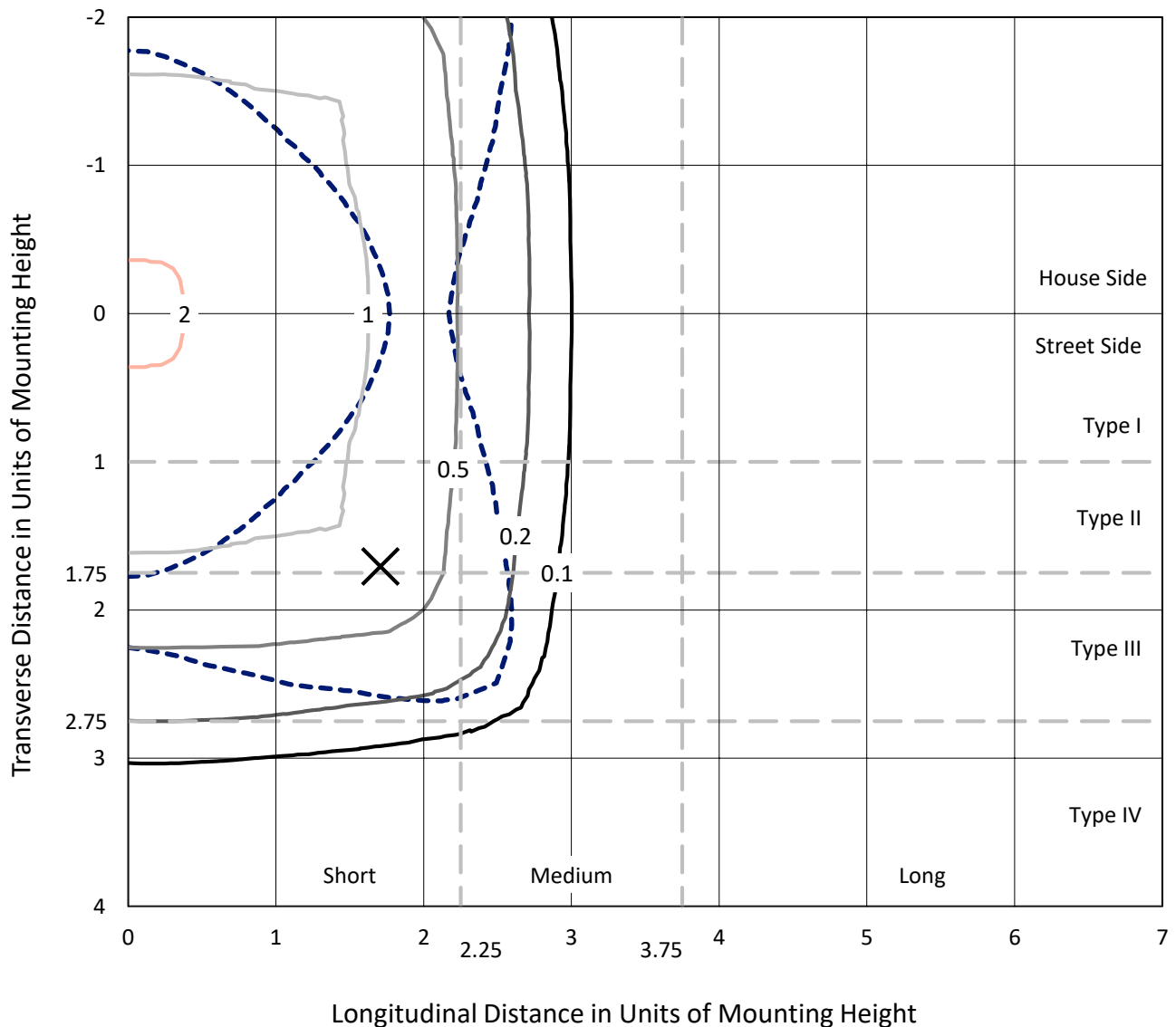


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

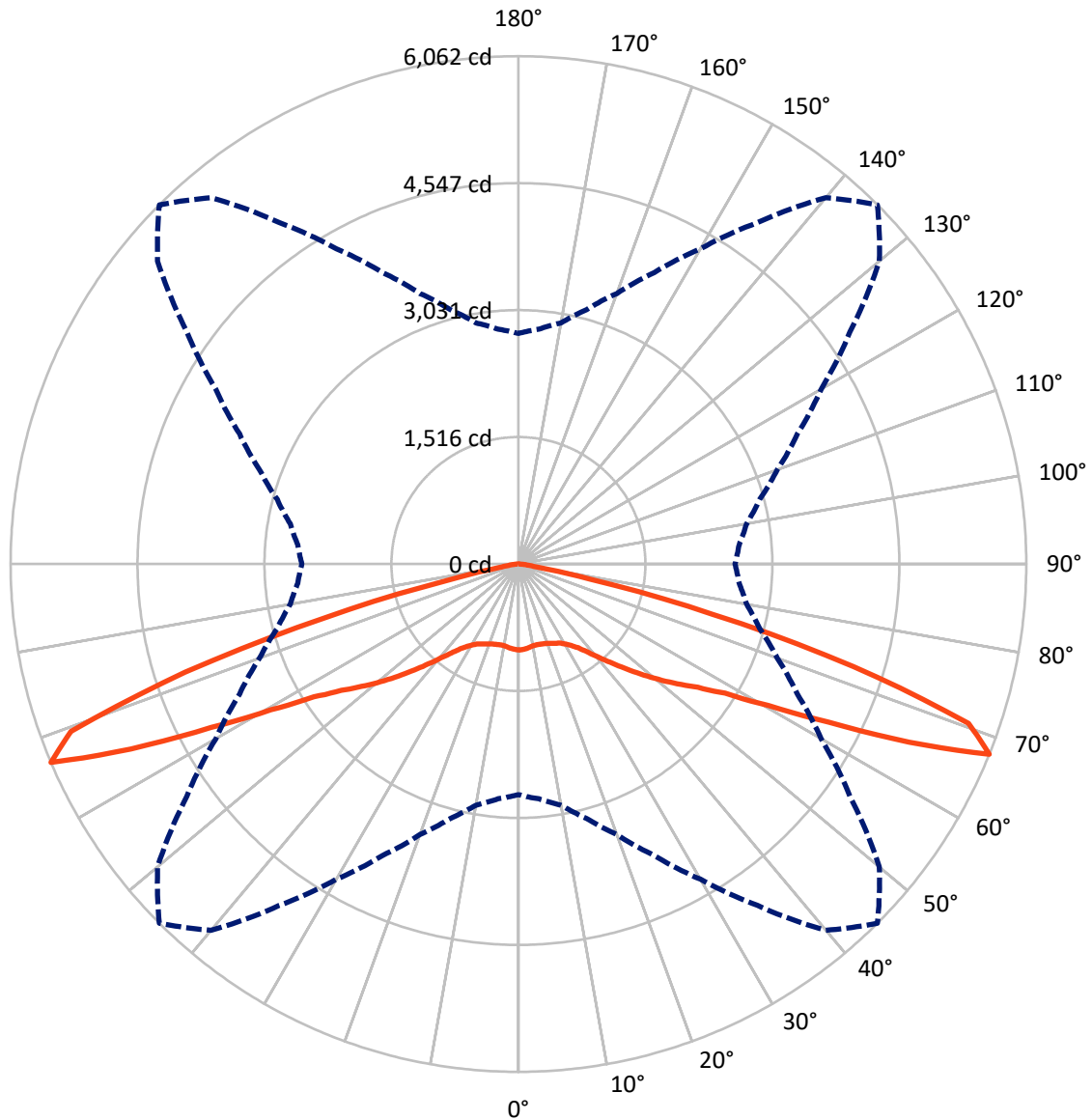


Based on 20 foot mounting height. Maximum calculated value = 2.6 fc  
 Type V - Short - Full Cutoff

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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	5150.2	0.0	5150.2
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	5150.2	0.0	5150.2
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	10300.4	0.0	10300.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	96.1	0.9
10°-20°	278.8	2.7
20°-30°	473.9	4.6
30°-40°	774.7	7.5
40°-50°	1383.0	13.4
50°-60°	2331.8	22.6
60°-70°	3618.7	35.1
70°-80°	1271.4	12.3
80°-90°	71.9	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°	10300.4	100.0
0°-180°	10300.4	100.0



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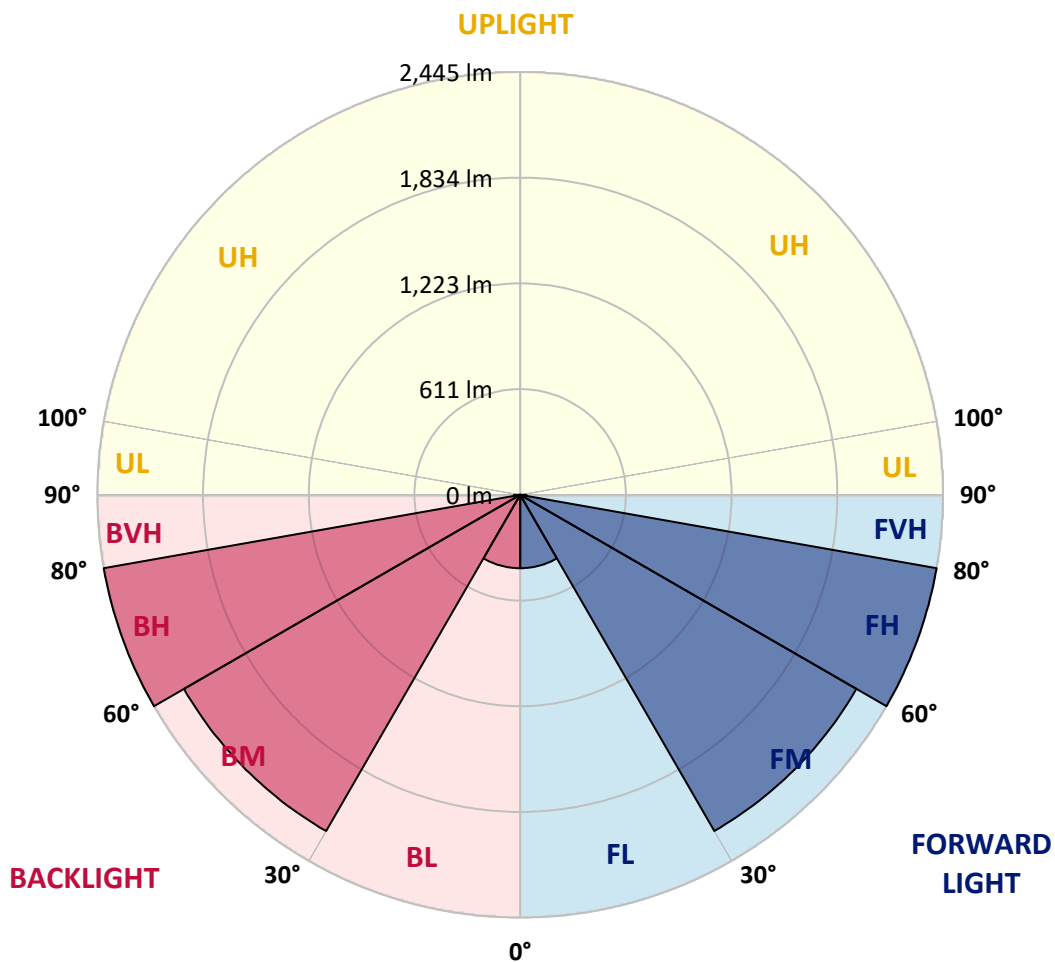
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	424.4	4.1			
FM	(30°-60°)	2244.8	21.8			
FH	(60°-80°)	2445.1	23.7			G2/5000
FVH	(80°-90°)	35.9	0.3			G1/100
BL	(0°-30°)	424.4	4.1	B1/500		
BM	(30°-60°)	2244.8	21.8	B2/2500		
BH	(60°-80°)	2445.1	23.7	B3/2500		G2/5000
BVH	(80°-90°)	35.9	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G2**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1026.5	1026.5	1026.5	1026.5	1026.5	1026.5	1026.5	1026.5	1026.5	1026.5	1026.5
2.5°	1022.7	1023.6	1023.6	1023.6	1023.2	1023.2	1022.2	1023.2	1022.7	1021.3	1021.7
5°	1014.2	1015.1	1015.1	1014.6	1016.1	1015.6	1014.2	1015.1	1014.6	1013.7	1014.2
7.5°	1001.8	1003.3	1003.3	1002.8	1004.2	1003.7	1002.8	1003.3	1003.3	1001.8	1001.8
10°	988.1	989.1	989.1	988.6	990.9	990.9	990.5	991.9	992.4	990.9	990.0
12.5°	975.3	976.7	976.7	978.6	981.0	981.9	984.3	986.2	988.1	987.6	985.7
15°	967.7	968.7	970.6	972.9	976.7	980.1	983.8	988.1	991.9	992.8	990.0
17.5°	963.0	964.4	967.3	970.6	975.8	981.5	987.2	992.8	998.1	999.9	996.6
20°	961.6	962.5	965.4	971.1	978.2	986.7	994.7	1001.4	1008.5	1010.8	1008.5
22.5°	964.4	966.3	969.6	976.3	985.7	996.6	1006.1	1015.1	1024.1	1028.4	1025.1
25°	977.2	979.1	983.4	991.9	1002.3	1013.7	1024.6	1035.0	1043.1	1047.3	1044.9
27.5°	1000.9	1003.3	1008.5	1017.0	1028.4	1040.7	1052.5	1061.1	1067.7	1069.1	1066.3
30°	1036.4	1041.6	1047.8	1057.3	1070.5	1080.9	1092.8	1100.4	1108.4	1108.4	1106.1
32.5°	1091.8	1097.1	1103.7	1112.7	1123.1	1134.5	1144.9	1151.5	1160.1	1160.5	1154.8
35°	1174.7	1177.1	1182.8	1188.5	1197.9	1207.9	1216.9	1221.2	1228.3	1228.7	1223.5
37.5°	1284.2	1284.6	1288.4	1290.3	1298.8	1309.7	1318.3	1321.1	1327.7	1326.8	1321.6
40°	1411.6	1413.9	1415.4	1418.2	1427.2	1437.6	1446.6	1448.1	1455.2	1453.7	1447.1
42.5°	1558.9	1559.8	1567.9	1572.2	1580.7	1585.9	1597.3	1598.7	1607.2	1603.4	1595.8
45°	1724.2	1732.7	1740.3	1748.8	1757.8	1764.0	1773.0	1771.1	1776.8	1771.1	1766.8
47.5°	1898.1	1904.2	1921.3	1934.5	1949.2	1954.4	1967.2	1961.5	1967.2	1959.2	1957.7
50°	2089.4	2100.3	2115.0	2130.2	2145.8	2154.3	2170.9	2163.8	2171.4	2163.8	2159.5
52.5°	2277.9	2280.8	2313.0	2335.3	2357.1	2367.0	2376.9	2373.6	2374.1	2373.6	2369.4
55°	2457.0	2463.6	2495.8	2526.2	2564.1	2592.0	2609.1	2607.2	2602.9	2598.6	2591.5
57.5°	2658.8	2665.4	2702.4	2739.8	2782.9	2822.7	2857.3	2892.8	2906.5	2910.3	2894.7
60°	2931.6	2931.2	2980.4	3025.9	3087.5	3146.7	3222.5	3299.7	3388.3	3429.5	3375.0
62.5°	3209.2	3220.6	3291.6	3372.2	3499.1	3622.7	3762.5	3899.8	4040.1	4154.2	4032.9
65°	3176.1	3219.6	3325.3	3507.6	3742.1	4020.6	4321.9	4640.7	4928.7	5126.7	4904.5
67.5°	2752.6	2814.6	2922.2	3143.8	3437.1	3838.7	4344.6	4975.1	5707.9	6062.2	5623.1
70°	1995.2	2065.3	2178.0	2394.5	2684.8	3066.6	3616.1	4373.1	5343.2	5700.3	5216.7
72.5°	992.8	1030.7	1100.4	1238.2	1458.0	1767.8	2266.1	2993.7	3852.0	4179.8	3737.8
75°	337.3	354.8	366.6	411.6	481.3	603.0	850.7	1308.8	1996.6	2393.5	1968.2
77.5°	194.7	195.2	203.2	211.3	223.1	236.4	269.5	353.8	612.0	869.2	633.3
80°	126.0	125.5	132.2	138.3	146.4	153.0	154.9	163.9	189.0	224.1	200.4
82.5°	65.4	73.4	88.1	96.2	111.3	114.2	110.4	107.1	113.2	117.5	120.3
85°	36.0	31.3	46.9	60.6	67.3	68.2	68.2	64.4	66.8	65.4	71.1
87.5°	16.6	15.2	18.5	29.8	31.7	27.0	28.4	25.1	18.0	17.5	19.9
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°	1026.5	1026.5	1026.5	1026.5	1026.5	1026.5	1026.5	1026.5
2.5°	1021.7	1022.2	1022.2	1023.6	1024.1	1025.1	1026.0	1026.5
5°	1013.7	1015.1	1014.2	1015.6	1015.6	1016.5	1016.5	1017.0
7.5°	1001.8	1003.3	1003.3	1003.3	1002.8	1004.2	1004.2	1004.2
10°	989.5	990.5	990.0	989.1	988.1	989.5	989.1	988.6
12.5°	985.7	983.4	981.5	980.5	978.6	979.1	977.7	977.7
15°	988.1	983.8	980.5	979.1	977.2	976.3	975.3	975.8
17.5°	994.3	989.1	984.8	982.4	980.1	978.6	976.7	977.2
20°	1005.2	999.0	992.8	988.1	983.8	981.5	980.1	979.6
22.5°	1021.3	1012.3	1003.3	996.2	990.5	987.2	985.7	984.8
25°	1039.7	1029.8	1019.4	1011.3	1005.6	1001.4	998.5	998.5
27.5°	1062.9	1054.9	1045.4	1035.9	1030.7	1026.5	1024.6	1023.6
30°	1101.8	1094.2	1086.6	1077.6	1071.0	1066.7	1063.4	1060.6
32.5°	1151.5	1145.4	1139.2	1132.6	1126.4	1120.7	1115.5	1113.2
35°	1221.6	1216.9	1212.6	1205.1	1202.7	1199.4	1196.5	1194.2
37.5°	1318.3	1316.4	1316.4	1308.3	1306.4	1305.0	1302.2	1302.6
40°	1445.2	1447.1	1444.7	1441.9	1440.5	1436.7	1436.7	1440.0
42.5°	1595.4	1596.8	1602.0	1597.3	1602.5	1597.7	1594.9	1597.3
45°	1769.7	1774.9	1785.3	1780.6	1783.9	1775.8	1765.9	1766.4
47.5°	1965.3	1970.1	1974.3	1971.0	1971.5	1958.2	1944.9	1941.6
50°	2168.5	2170.4	2172.8	2168.1	2169.0	2154.3	2139.2	2139.6
52.5°	2369.4	2378.4	2387.8	2375.1	2372.2	2355.6	2334.3	2325.8
55°	2599.1	2611.9	2601.0	2578.7	2556.5	2534.2	2506.3	2501.5
57.5°	2882.4	2860.6	2826.5	2784.3	2753.5	2722.3	2693.8	2682.0
60°	3276.5	3194.5	3132.9	3070.4	3031.1	2992.7	2955.3	2949.6
62.5°	3833.5	3691.9	3569.2	3439.9	3334.3	3251.8	3186.0	3167.5
65°	4531.7	4196.8	3906.5	3635.5	3400.1	3222.5	3110.7	3061.4
67.5°	4832.1	4170.8	3672.9	3288.3	2980.4	2765.4	2644.6	2584.4
70°	4246.1	3458.8	2917.4	2532.3	2251.9	2022.6	1913.2	1848.8
72.5°	2921.2	2200.3	1739.8	1420.1	1196.1	1004.2	928.4	922.7
75°	1311.6	868.7	598.7	461.4	388.4	337.7	322.1	310.3
77.5°	367.1	271.4	242.1	226.4	211.3	193.7	187.1	188.5
80°	178.6	168.6	162.0	152.1	138.3	123.6	117.0	119.8
82.5°	118.4	117.0	121.3	114.2	94.3	80.1	67.3	61.6
85°	72.0	72.9	74.4	74.8	63.5	44.5	30.3	34.1
87.5°	28.4	32.7	35.5	36.9	34.6	21.3	17.1	17.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)