

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: P299952

Luminaire Tested: **GLNA-AF-03-LED-E1-5WQ-7060-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299952
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-7060-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 5700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12565.4 lumens
Efficiency: N/A
Efficacy: 130.9 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): 96
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

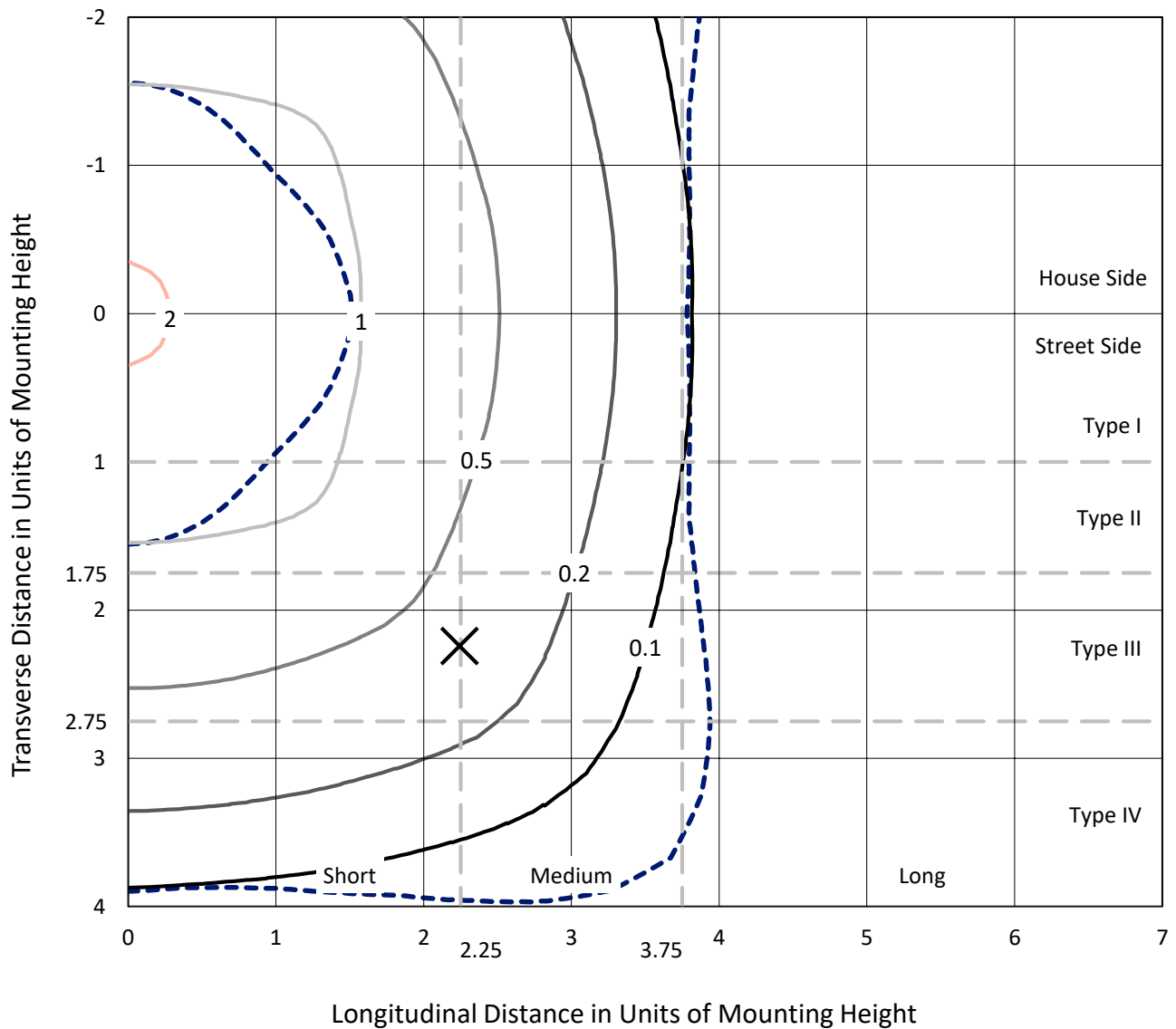


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

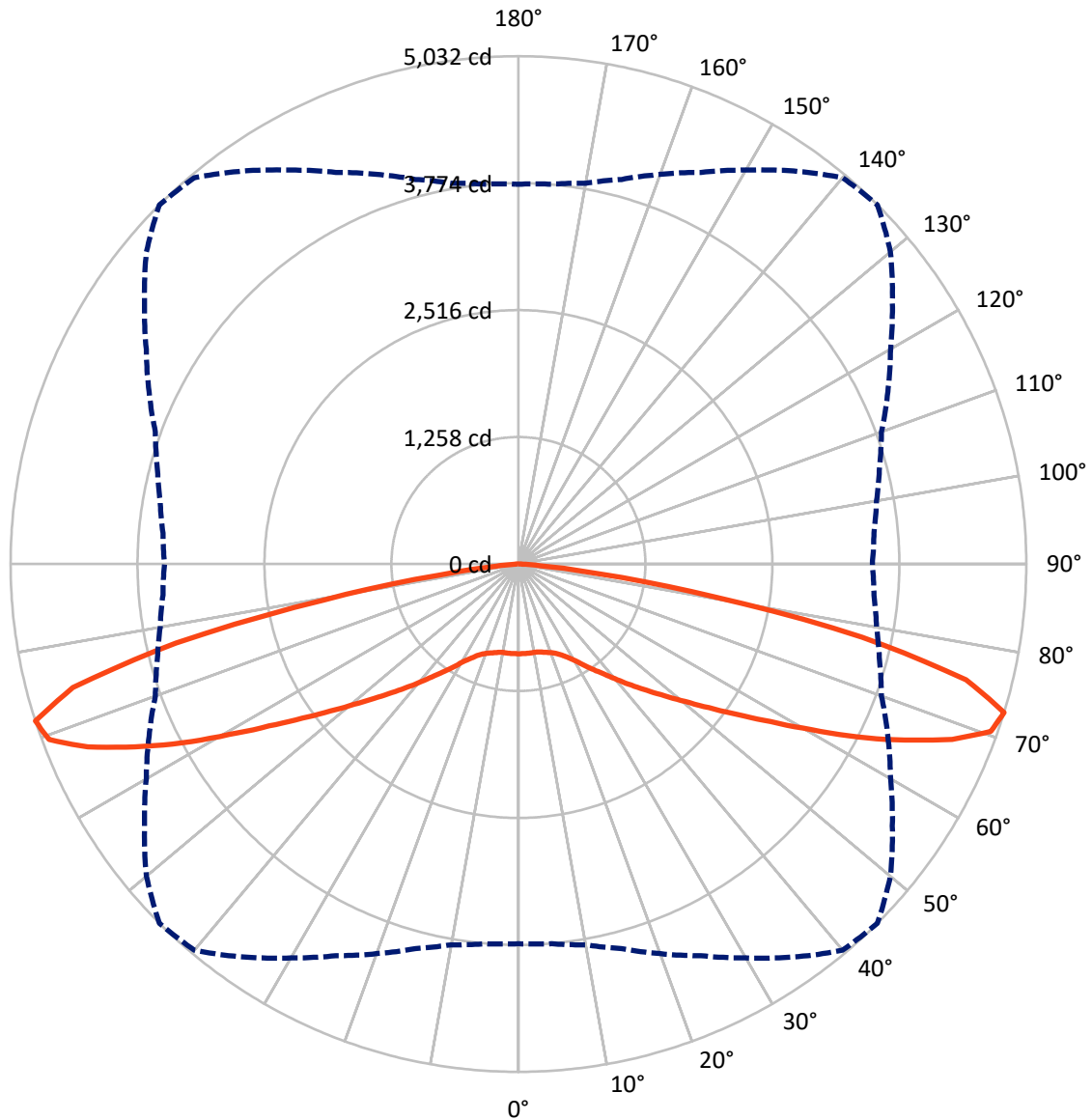


Based on 20 foot mounting height. Maximum calculated value = 2.2 fc
 Type V - Short - Semi-Cutoff

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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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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6282.7	0.0	6282.7
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	6282.7	0.0	6282.7
	% Fixture	50.0	0.0	50.0
Total	Lumens	12565.4	0.0	12565.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.0	0.7
10°-20°	258.1	2.1
20°-30°	471.6	3.8
30°-40°	813.1	6.5
40°-50°	1390.0	11.1
50°-60°	2252.9	17.9
60°-70°	3737.5	29.7
70°-80°	3291.9	26.2
80°-90°	265.4	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°	12565.4	100.0
0°-180°	12565.4	100.0



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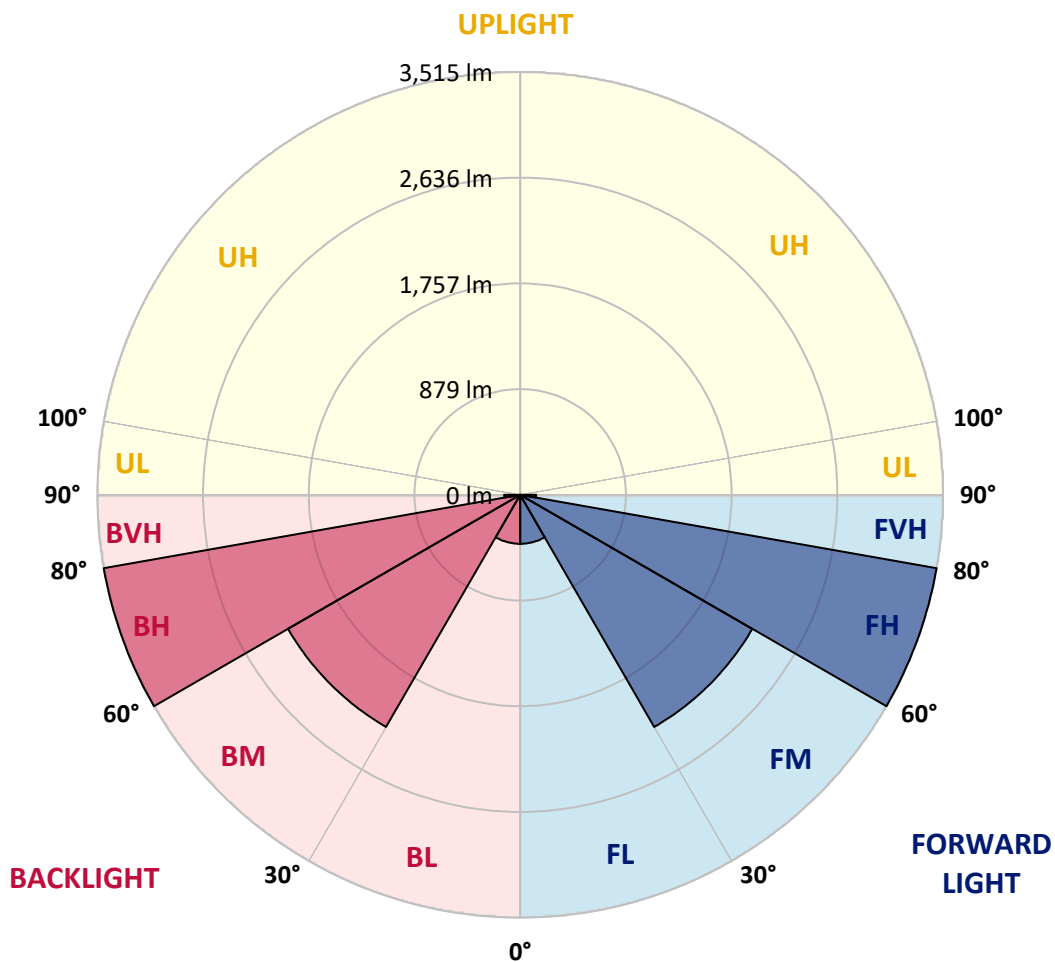
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	407.3	3.2			
FM	(30°-60°)	2228.0	17.7			
FH	(60°-80°)	3514.7	28.0			G2/5000
FVH	(80°-90°)	132.7	1.1			G2/225
BL	(0°-30°)	407.3	3.2	B1/500		
BM	(30°-60°)	2228.0	17.7	B2/2500		
BH	(60°-80°)	3514.7	28.0	B4/5000		G2/5000
BVH	(80°-90°)	132.7	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°	889.8	889.8	889.8	889.8	889.8	889.8	889.8	889.8	889.8	889.8	889.8
2.5°	889.8	890.4	891.0	890.4	890.4	889.8	889.2	889.8	889.2	888.1	888.7
5°	892.7	893.9	893.9	892.7	893.3	892.7	891.6	892.1	891.0	889.2	889.2
7.5°	896.2	896.7	896.7	895.6	896.2	895.0	893.9	893.3	892.1	889.8	888.1
10°	901.4	901.9	901.4	900.2	900.2	898.5	895.6	894.4	892.1	888.7	886.9
12.5°	907.1	907.7	907.1	906.0	905.4	902.5	900.2	898.5	896.7	893.9	891.0
15°	915.2	916.3	915.2	912.9	911.1	908.8	907.7	908.3	908.8	906.5	903.7
17.5°	930.2	930.7	929.0	923.8	921.5	919.2	919.2	920.4	922.1	920.9	918.1
20°	957.8	956.1	952.1	945.7	942.8	938.8	938.2	938.8	938.8	938.2	935.9
22.5°	992.4	991.3	986.1	978.0	974.0	971.7	968.2	965.3	964.7	963.0	960.7
25°	1033.9	1033.3	1027.0	1020.1	1017.2	1014.3	1011.4	1007.4	1003.9	999.9	997.6
27.5°	1086.9	1084.6	1075.4	1071.9	1067.9	1066.2	1062.1	1057.5	1054.7	1049.5	1046.6
30°	1145.1	1145.1	1137.6	1136.5	1136.5	1132.5	1127.8	1119.8	1114.6	1109.4	1107.7
32.5°	1203.3	1203.9	1196.4	1198.7	1200.5	1203.3	1204.5	1201.6	1198.2	1197.6	1194.1
35°	1287.5	1285.2	1277.7	1279.4	1278.8	1278.3	1278.3	1284.6	1285.8	1286.9	1280.0
37.5°	1391.8	1391.8	1384.3	1384.3	1380.8	1377.4	1372.8	1376.8	1383.1	1384.9	1380.3
40°	1511.1	1515.1	1505.9	1505.3	1506.5	1495.5	1490.3	1496.7	1500.7	1507.6	1502.4
42.5°	1651.7	1648.8	1639.6	1638.5	1632.1	1628.7	1624.0	1629.2	1635.6	1640.2	1641.9
45°	1786.6	1784.3	1773.9	1773.9	1767.5	1764.7	1767.0	1775.6	1778.5	1784.8	1791.2
47.5°	1919.7	1916.8	1909.9	1912.8	1913.4	1918.5	1926.0	1934.1	1942.2	1950.8	1953.7
50°	2055.7	2056.3	2048.8	2055.7	2064.3	2078.8	2098.9	2112.2	2128.9	2139.8	2143.3
52.5°	2179.6	2181.9	2190.0	2206.1	2223.4	2251.7	2286.2	2318.5	2346.2	2364.6	2363.5
55°	2328.3	2331.8	2351.4	2379.0	2407.3	2449.9	2501.2	2558.2	2604.4	2630.9	2614.2
57.5°	2518.5	2526.0	2547.9	2585.3	2627.4	2682.7	2753.0	2838.9	2910.4	2946.1	2919.0
60°	2779.6	2784.2	2810.7	2852.2	2902.9	2971.5	3065.4	3180.7	3281.5	3328.8	3297.7
62.5°	3123.6	3132.3	3153.6	3195.6	3247.5	3325.3	3440.0	3584.1	3709.7	3775.4	3705.1
65°	3534.5	3562.2	3580.0	3622.7	3671.1	3753.5	3873.4	4027.8	4162.7	4205.9	4124.7
67.5°	3941.4	3965.6	3996.7	4045.7	4094.7	4187.5	4298.7	4448.6	4596.7	4635.9	4509.6
70°	4119.5	4133.3	4181.7	4248.6	4342.5	4452.0	4580.5	4748.8	4932.1	4964.3	4804.1
72.5°	3762.7	3776.6	3830.7	3944.3	4108.0	4282.0	4506.2	4753.4	4995.5	5031.8	4811.1
75°	2845.8	2823.4	2903.5	3053.9	3274.6	3517.2	3830.7	4185.2	4535.0	4580.5	4317.2
77.5°	1470.7	1467.9	1528.4	1715.1	1978.5	2254.5	2599.7	3000.3	3342.6	3480.9	3266.5
80°	414.4	419.0	447.8	540.6	694.5	893.9	1163.6	1538.8	1818.8	1961.8	1841.9
82.5°	162.5	175.2	186.1	203.4	223.6	253.0	337.7	502.5	674.3	805.7	659.9
85°	58.2	62.2	88.2	104.3	106.0	111.8	127.4	148.7	179.2	213.8	175.8
87.5°	21.9	24.2	28.2	46.7	46.1	42.1	51.3	53.6	40.3	36.9	45.5
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°	889.8	889.8	889.8	889.8	889.8	889.8	889.8	889.8
2.5°	887.5	888.1	888.1	888.7	889.2	889.2	890.4	890.4
5°	888.1	888.1	886.9	887.5	886.9	886.9	887.5	887.5
7.5°	886.9	886.4	885.2	884.6	883.5	883.5	883.5	883.5
10°	885.2	884.6	883.5	882.9	882.3	882.3	882.3	882.3
12.5°	889.8	888.1	886.9	886.4	886.4	886.4	886.4	886.4
15°	901.9	897.9	895.0	895.0	895.6	896.7	896.7	897.9
17.5°	916.9	912.3	909.4	907.1	908.3	910.0	911.1	912.3
20°	934.8	932.5	928.4	926.1	926.1	928.4	929.6	930.2
22.5°	959.6	957.8	956.1	953.2	953.2	954.4	956.7	956.7
25°	996.4	995.3	994.1	991.8	991.3	991.3	992.4	993.6
27.5°	1042.5	1043.1	1042.0	1041.4	1039.7	1039.1	1040.8	1040.2
30°	1104.2	1107.1	1110.0	1107.7	1104.8	1103.1	1101.3	1099.0
32.5°	1187.8	1184.3	1182.0	1178.0	1172.8	1168.2	1164.7	1160.7
35°	1266.7	1261.0	1258.7	1262.1	1261.5	1258.7	1254.6	1251.2
37.5°	1363.6	1362.4	1363.6	1369.9	1368.7	1371.6	1363.6	1363.0
40°	1485.7	1486.9	1495.0	1502.4	1506.5	1510.5	1505.9	1501.3
42.5°	1627.5	1626.9	1629.8	1640.2	1647.1	1651.7	1641.9	1640.8
45°	1777.3	1773.3	1775.6	1784.3	1791.2	1796.4	1785.4	1785.4
47.5°	1942.2	1935.3	1927.8	1937.6	1941.6	1945.1	1936.4	1933.5
50°	2126.0	2111.6	2095.5	2099.5	2099.5	2098.4	2087.4	2086.8
52.5°	2336.9	2310.4	2281.0	2270.1	2263.8	2256.8	2237.8	2228.6
55°	2579.6	2539.8	2493.7	2465.5	2450.5	2431.5	2399.8	2391.1
57.5°	2863.1	2800.9	2721.3	2686.8	2653.3	2622.2	2587.1	2577.3
60°	3199.1	3107.5	3002.0	2938.0	2901.7	2871.8	2835.5	2833.7
62.5°	3573.7	3429.1	3309.8	3252.1	3225.6	3199.1	3164.5	3169.1
65°	3954.7	3803.7	3691.9	3645.2	3620.4	3598.5	3563.9	3569.1
67.5°	4330.4	4191.5	4068.8	4020.9	3993.3	3965.6	3934.5	3939.7
70°	4600.1	4427.8	4289.5	4183.4	4117.2	4042.3	3993.8	3981.7
72.5°	4522.9	4257.2	4037.6	3827.3	3704.0	3603.7	3535.7	3506.3
75°	3914.3	3551.2	3268.8	3010.7	2865.4	2747.3	2661.4	2607.8
77.5°	2906.9	2498.9	2165.2	1867.8	1632.7	1474.8	1363.6	1291.5
80°	1591.2	1210.3	884.6	621.8	457.0	379.8	335.4	314.1
82.5°	495.6	319.9	235.7	203.4	189.0	181.0	167.7	146.4
85°	157.9	138.3	128.5	122.8	117.0	102.0	70.3	64.0
87.5°	61.1	62.8	62.2	58.8	59.9	43.2	34.6	30.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)