

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: P299947

Luminaire Tested: **GLNA-AF-03-LED-E1-5WQ-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299947
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-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 2700K 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: 10917.3 lumens
Efficiency: N/A
Efficacy: 113.7 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

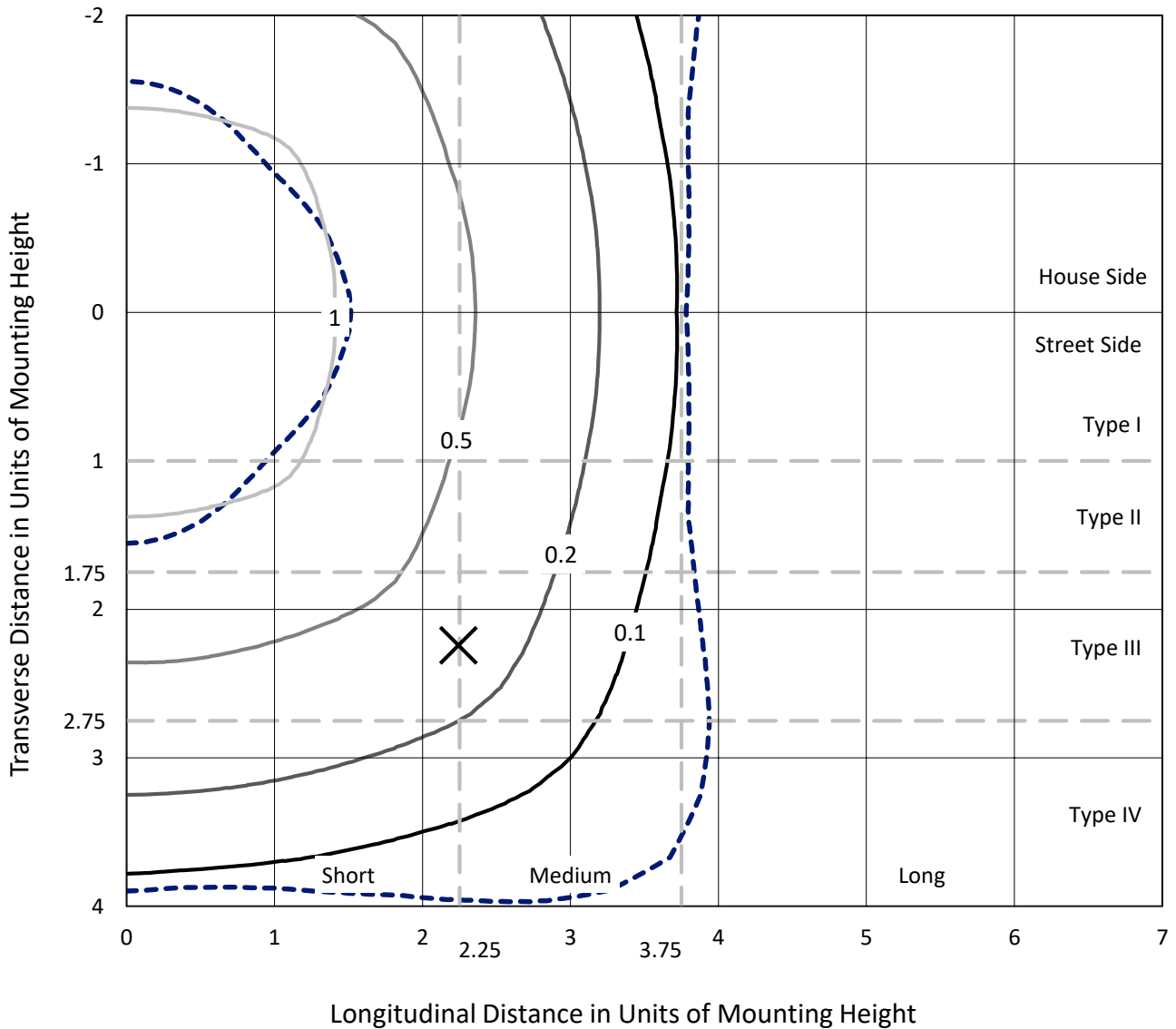


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

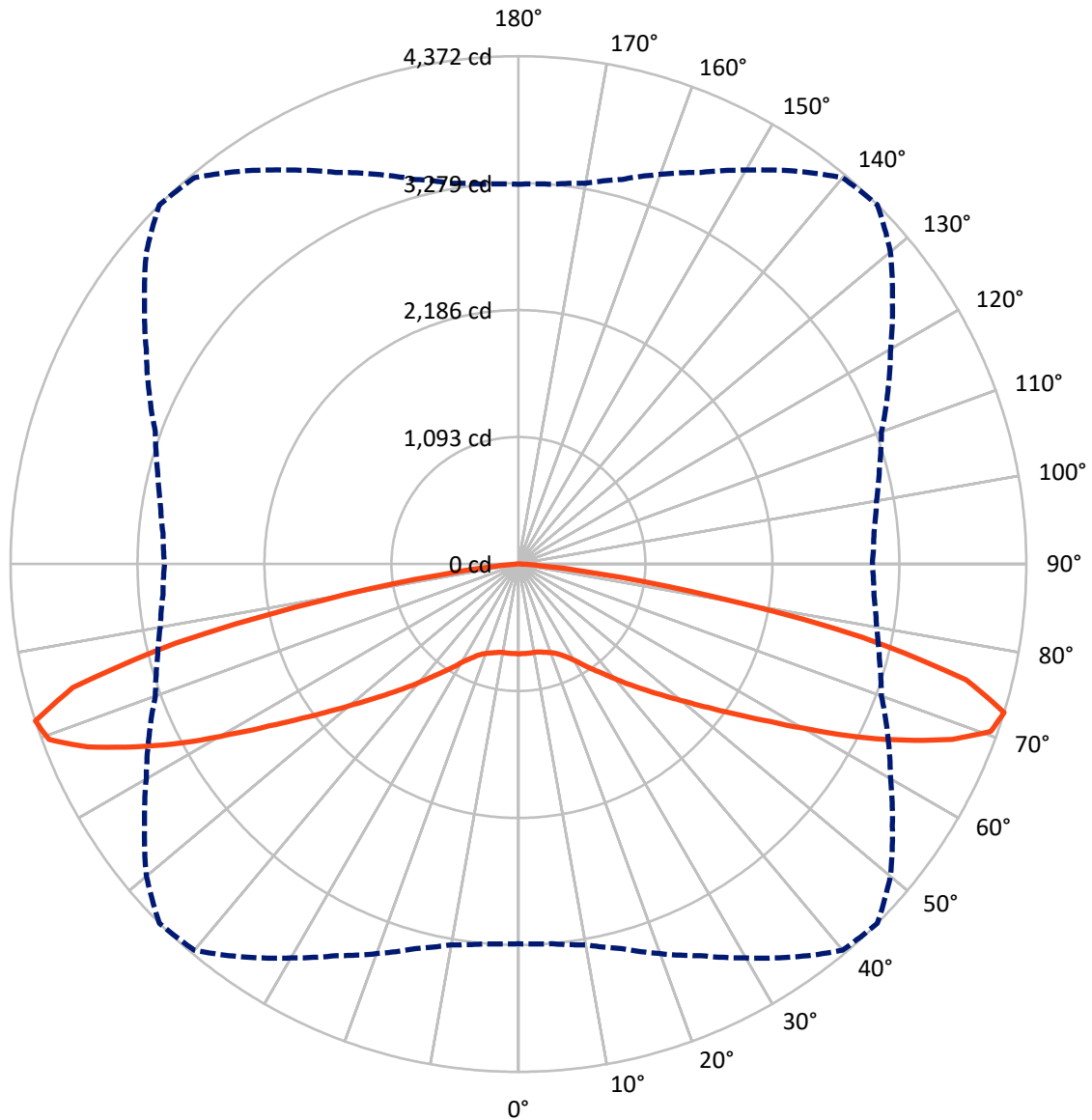


Based on 20 foot mounting height. Maximum calculated value = 1.9 fc
 Type V - Short - Semi-Cutoff

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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	5458.6	0.0	5458.6
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	5458.6	0.0	5458.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	10917.3	0.0	10917.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.8	0.7
10°-20°	224.2	2.1
20°-30°	409.7	3.8
30°-40°	706.4	6.5
40°-50°	1207.6	11.1
50°-60°	1957.4	17.9
60°-70°	3247.3	29.7
70°-80°	2860.1	26.2
80°-90°	230.6	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°	10917.3	100.0
0°-180°	10917.3	100.0



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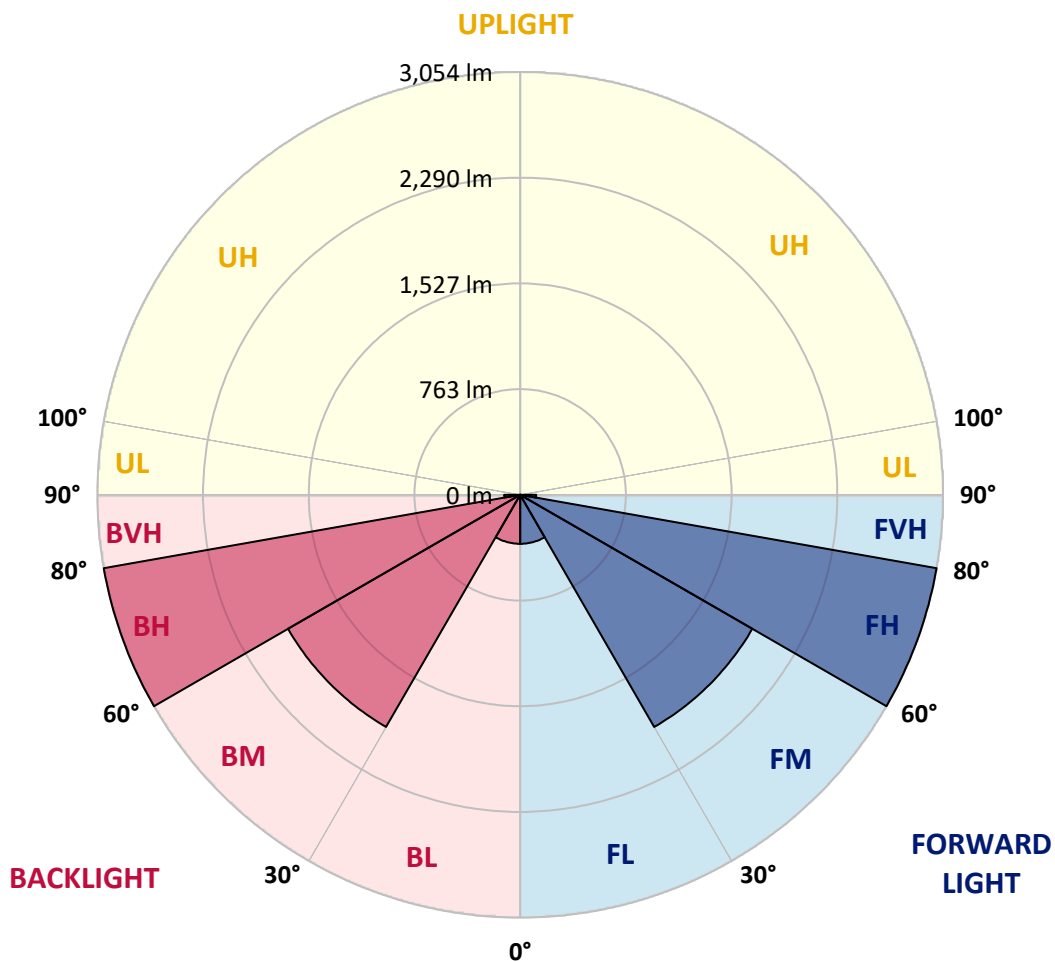
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	353.9	3.2			
FM	(30°-60°)	1935.8	17.7			
FH	(60°-80°)	3053.7	28.0			G2/5000
FVH	(80°-90°)	115.3	1.1			G2/225
BL	(0°-30°)	353.9	3.2	B1/500		
BM	(30°-60°)	1935.8	17.7	B2/2500		
BH	(60°-80°)	3053.7	28.0	B4/5000		G2/5000
BVH	(80°-90°)	115.3	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°	773.1	773.1	773.1	773.1	773.1	773.1	773.1	773.1	773.1	773.1	773.1
2.5°	773.1	773.6	774.1	773.6	773.6	773.1	772.6	773.1	772.6	771.6	772.1
5°	775.6	776.6	776.6	775.6	776.1	775.6	774.6	775.1	774.1	772.6	772.6
7.5°	778.6	779.1	779.1	778.1	778.6	777.6	776.6	776.1	775.1	773.1	771.6
10°	783.1	783.6	783.1	782.1	782.1	780.6	778.1	777.1	775.1	772.1	770.6
12.5°	788.1	788.6	788.1	787.1	786.6	784.1	782.1	780.6	779.1	776.6	774.1
15°	795.1	796.1	795.1	793.1	791.6	789.6	788.6	789.1	789.6	787.6	785.1
17.5°	808.2	808.7	807.2	802.7	800.7	798.7	798.7	799.7	801.2	800.2	797.7
20°	832.2	830.7	827.2	821.7	819.2	815.7	815.2	815.7	815.7	815.2	813.2
22.5°	862.2	861.2	856.7	849.7	846.2	844.2	841.2	838.7	838.2	836.7	834.7
25°	898.3	897.8	892.3	886.3	883.8	881.3	878.8	875.3	872.3	868.8	866.7
27.5°	944.4	942.4	934.3	931.3	927.8	926.3	922.8	918.8	916.3	911.8	909.3
30°	994.9	994.9	988.4	987.4	987.4	983.9	979.9	972.9	968.4	963.9	962.4
32.5°	1045.5	1046.0	1039.5	1041.5	1043.0	1045.5	1046.5	1044.0	1041.0	1040.5	1037.5
35°	1118.6	1116.6	1110.1	1111.6	1111.1	1110.6	1110.6	1116.1	1117.1	1118.1	1112.1
37.5°	1209.2	1209.2	1202.7	1202.7	1199.7	1196.7	1192.7	1196.2	1201.7	1203.2	1199.2
40°	1312.9	1316.4	1308.4	1307.9	1308.9	1299.4	1294.9	1300.4	1303.9	1309.9	1305.4
42.5°	1435.1	1432.6	1424.6	1423.6	1418.0	1415.0	1411.0	1415.5	1421.0	1425.1	1426.6
45°	1552.2	1550.2	1541.2	1541.2	1535.7	1533.2	1535.2	1542.7	1545.2	1550.7	1556.2
47.5°	1667.9	1665.4	1659.4	1661.9	1662.4	1666.9	1673.4	1680.4	1687.4	1694.9	1697.4
50°	1786.1	1786.6	1780.1	1786.1	1793.6	1806.1	1823.6	1835.1	1849.7	1859.2	1862.2
52.5°	1893.7	1895.7	1902.7	1916.8	1931.8	1956.3	1986.4	2014.4	2038.4	2054.5	2053.5
55°	2022.9	2025.9	2042.9	2067.0	2091.5	2128.6	2173.1	2222.7	2262.8	2285.8	2271.3
57.5°	2188.2	2194.7	2213.7	2246.2	2282.8	2330.9	2391.9	2466.6	2528.6	2559.7	2536.2
60°	2415.0	2419.0	2442.0	2478.1	2522.1	2581.7	2663.3	2763.5	2851.1	2892.2	2865.1
62.5°	2713.9	2721.4	2740.0	2776.5	2821.6	2889.2	2988.8	3114.0	3223.1	3280.2	3219.1
65°	3070.9	3095.0	3110.5	3147.5	3189.6	3261.2	3365.4	3499.5	3616.7	3654.3	3583.7
67.5°	3424.4	3445.5	3472.5	3515.1	3557.6	3638.2	3734.9	3865.1	3993.8	4027.8	3918.1
70°	3579.2	3591.2	3633.2	3691.3	3772.9	3868.1	3979.7	4125.9	4285.2	4313.2	4174.0
72.5°	3269.2	3281.2	3328.3	3426.9	3569.1	3720.4	3915.1	4130.0	4340.3	4371.8	4180.0
75°	2472.6	2453.0	2522.6	2653.3	2845.1	3055.9	3328.3	3636.2	3940.2	3979.7	3750.9
77.5°	1277.8	1275.3	1327.9	1490.1	1719.0	1958.8	2258.8	2606.8	2904.2	3024.4	2838.1
80°	360.0	364.0	389.1	469.7	603.4	776.6	1011.0	1336.9	1580.3	1704.5	1600.3
82.5°	141.2	152.2	161.7	176.8	194.3	219.8	293.4	436.6	585.8	700.0	573.3
85°	50.6	54.1	76.6	90.6	92.1	97.1	110.7	129.2	155.7	185.8	152.7
87.5°	19.0	21.0	24.5	40.6	40.1	36.6	44.6	46.6	35.1	32.0	39.6
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°	773.1	773.1	773.1	773.1	773.1	773.1	773.1	773.1
2.5°	771.1	771.6	771.6	772.1	772.6	772.6	773.6	773.6
5°	771.6	771.6	770.6	771.1	770.6	770.6	771.1	771.1
7.5°	770.6	770.1	769.1	768.6	767.6	767.6	767.6	767.6
10°	769.1	768.6	767.6	767.1	766.6	766.6	766.6	766.6
12.5°	773.1	771.6	770.6	770.1	770.1	770.1	770.1	770.1
15°	783.6	780.1	777.6	777.6	778.1	779.1	779.1	780.1
17.5°	796.6	792.6	790.1	788.1	789.1	790.6	791.6	792.6
20°	812.2	810.2	806.7	804.7	804.7	806.7	807.7	808.2
22.5°	833.7	832.2	830.7	828.2	828.2	829.2	831.2	831.2
25°	865.7	864.7	863.7	861.7	861.2	861.2	862.2	863.2
27.5°	905.8	906.3	905.3	904.8	903.3	902.8	904.3	903.8
30°	959.4	961.9	964.4	962.4	959.9	958.4	956.9	954.9
32.5°	1032.0	1029.0	1027.0	1023.5	1019.0	1015.0	1012.0	1008.5
35°	1100.6	1095.6	1093.6	1096.6	1096.1	1093.6	1090.1	1087.1
37.5°	1184.7	1183.7	1184.7	1190.2	1189.2	1191.7	1184.7	1184.2
40°	1290.9	1291.9	1298.9	1305.4	1308.9	1312.4	1308.4	1304.4
42.5°	1414.0	1413.5	1416.0	1425.1	1431.1	1435.1	1426.6	1425.6
45°	1544.2	1540.7	1542.7	1550.2	1556.2	1560.8	1551.2	1551.2
47.5°	1687.4	1681.4	1674.9	1683.4	1686.9	1689.9	1682.4	1679.9
50°	1847.2	1834.6	1820.6	1824.1	1824.1	1823.1	1813.6	1813.1
52.5°	2030.4	2007.4	1981.9	1972.3	1966.8	1960.8	1944.3	1936.3
55°	2241.2	2206.7	2166.6	2142.1	2129.1	2112.5	2085.0	2077.5
57.5°	2487.6	2433.5	2364.4	2334.4	2305.3	2278.3	2247.7	2239.2
60°	2779.5	2699.9	2608.3	2552.7	2521.1	2495.1	2463.6	2462.1
62.5°	3105.0	2979.3	2875.6	2825.6	2802.5	2779.5	2749.5	2753.5
65°	3436.0	3304.8	3207.6	3167.1	3145.5	3126.5	3096.5	3101.0
67.5°	3762.4	3641.8	3535.1	3493.5	3469.5	3445.5	3418.4	3422.9
70°	3996.8	3847.0	3726.9	3634.7	3577.2	3512.1	3470.0	3459.5
72.5°	3929.7	3698.8	3508.1	3325.3	3218.1	3131.0	3071.9	3046.4
75°	3400.9	3085.4	2840.1	2615.8	2489.6	2386.9	2312.3	2265.8
77.5°	2525.6	2171.1	1881.2	1622.8	1418.5	1281.3	1184.7	1122.1
80°	1382.5	1051.5	768.6	540.3	397.1	330.0	291.4	272.9
82.5°	430.6	277.9	204.8	176.8	164.2	157.2	145.7	127.2
85°	137.2	120.2	111.7	106.7	101.6	88.6	61.1	55.6
87.5°	53.1	54.6	54.1	51.1	52.1	37.6	30.0	26.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)