

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: STREETWORKS

Report Number: P299821

Luminaire Tested: **GAA-AF-02-LED-U-5WQ-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299821
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: STREETWORKS
Catalog Number: GAA-AF-02-LED-U-5WQ-7027
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 2700K 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: 11106.2 lumens
Efficiency: N/A
Efficacy: 98.3 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

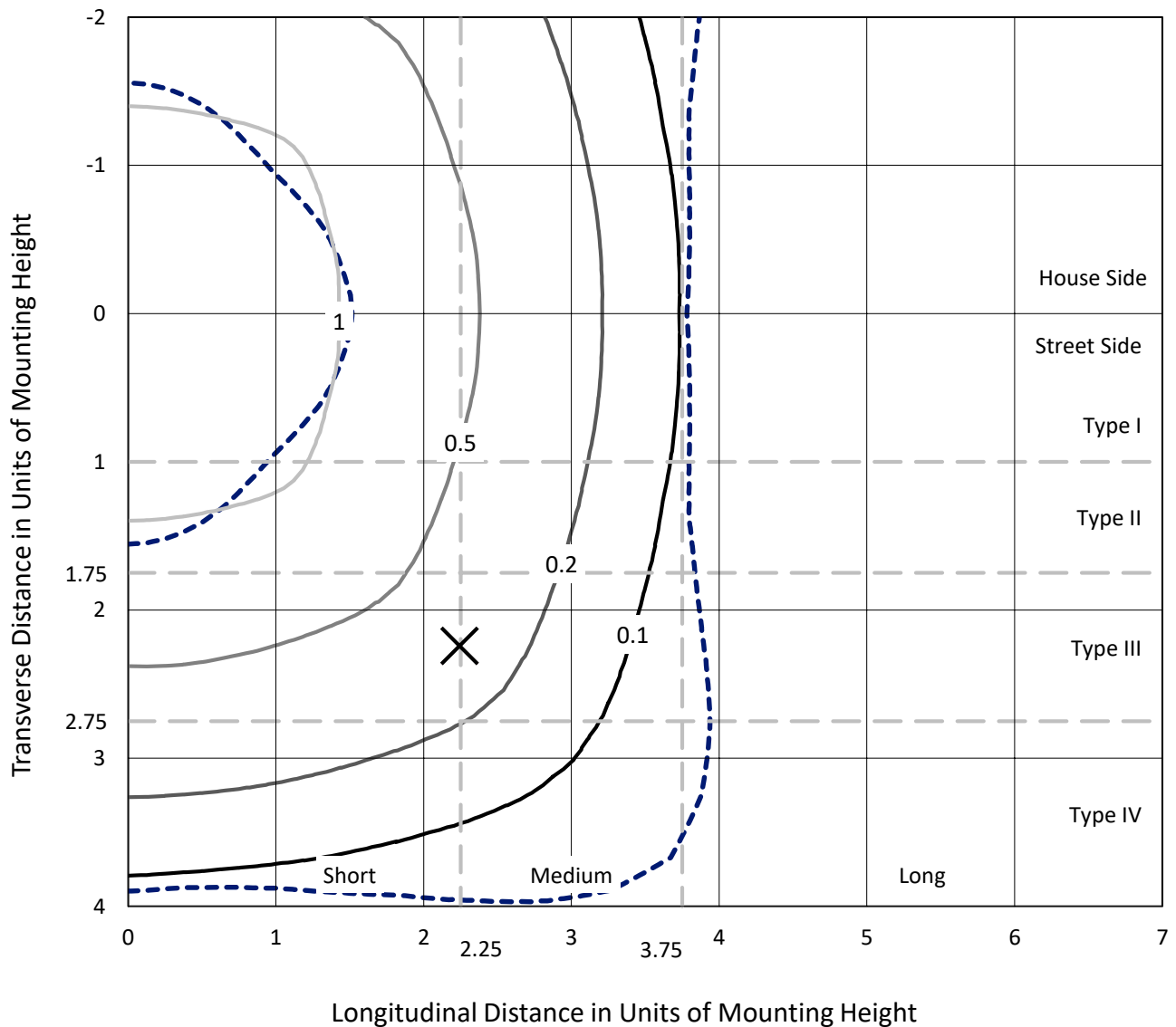
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

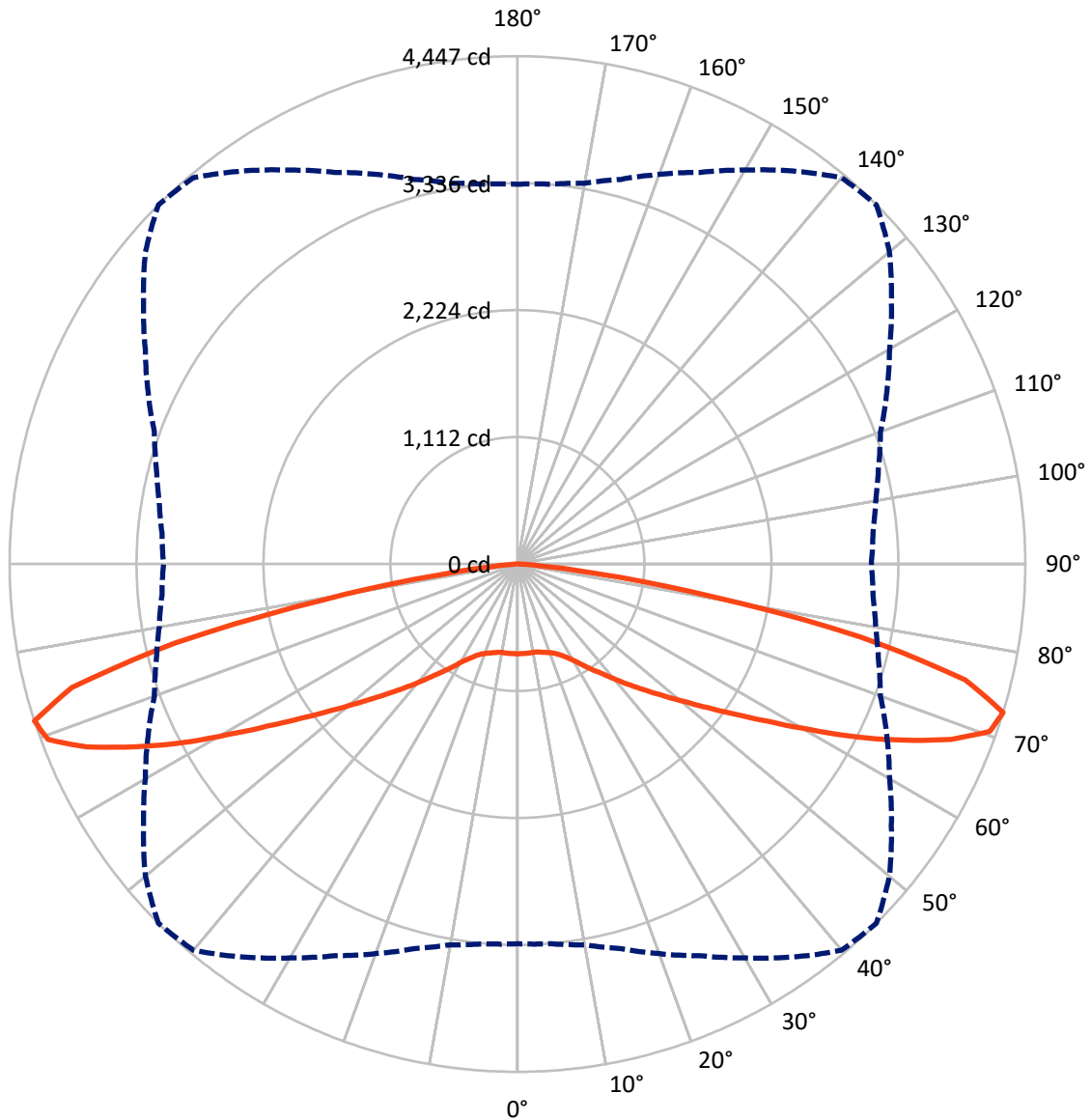
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 2 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	5553.1	0.0	5553.1
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	5553.1	0.0	5553.1
	% Fixture	50.0	0.0	50.0
Total	Lumens	11106.2	0.0	11106.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.1	0.7
10°-20°	228.1	2.1
20°-30°	416.8	3.8
30°-40°	718.7	6.5
40°-50°	1228.5	11.1
50°-60°	1991.3	17.9
60°-70°	3303.5	29.7
70°-80°	2909.6	26.2
80°-90°	234.6	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°	11106.2	100.0
0°-180°	11106.2	100.0



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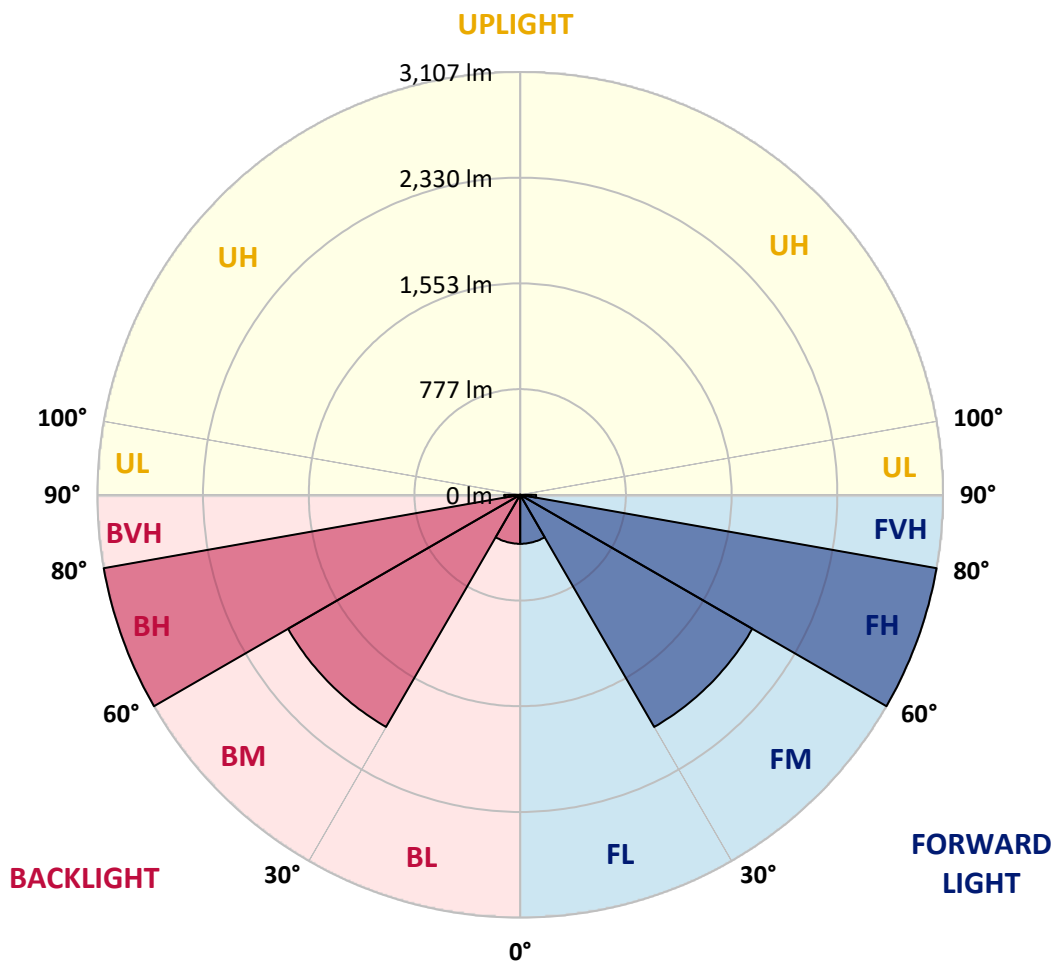
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	360.0	3.2			
FM	(30°-60°)	1969.2	17.7			
FH	(60°-80°)	3106.5	28.0			G2/5000
FVH	(80°-90°)	117.3	1.1			G2/225
BL	(0°-30°)	360.0	3.2	B1/500		
BM	(30°-60°)	1969.2	17.7	B2/2500		
BH	(60°-80°)	3106.5	28.0	B4/5000		G2/5000
BVH	(80°-90°)	117.3	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°	786.5	786.5	786.5	786.5	786.5	786.5	786.5	786.5	786.5	786.5	786.5
2.5°	786.5	787.0	787.5	787.0	787.0	786.5	786.0	786.5	786.0	785.0	785.5
5°	789.0	790.1	790.1	789.0	789.5	789.0	788.0	788.5	787.5	786.0	786.0
7.5°	792.1	792.6	792.6	791.6	792.1	791.1	790.1	789.5	788.5	786.5	785.0
10°	796.7	797.2	796.7	795.7	795.7	794.1	791.6	790.6	788.5	785.5	783.9
12.5°	801.8	802.3	801.8	800.8	800.2	797.7	795.7	794.1	792.6	790.1	787.5
15°	808.9	809.9	808.9	806.9	805.3	803.3	802.3	802.8	803.3	801.3	798.7
17.5°	822.1	822.7	821.1	816.5	814.5	812.5	812.5	813.5	815.0	814.0	811.5
20°	846.6	845.1	841.5	835.9	833.4	829.8	829.3	829.8	829.8	829.3	827.2
22.5°	877.2	876.1	871.6	864.4	860.9	858.8	855.8	853.2	852.7	851.2	849.1
25°	913.8	913.3	907.7	901.6	899.1	896.5	894.0	890.4	887.3	883.8	881.7
27.5°	960.7	958.7	950.5	947.5	943.9	942.4	938.8	934.7	932.2	927.6	925.0
30°	1012.1	1012.1	1005.5	1004.5	1004.5	1000.9	996.9	989.7	985.2	980.6	979.0
32.5°	1063.6	1064.1	1057.5	1059.5	1061.1	1063.6	1064.6	1062.1	1059.0	1058.5	1055.4
35°	1138.0	1135.9	1129.3	1130.8	1130.3	1129.8	1129.8	1135.4	1136.4	1137.5	1131.3
37.5°	1230.2	1230.2	1223.5	1223.5	1220.5	1217.4	1213.4	1216.9	1222.5	1224.1	1220.0
40°	1335.6	1339.2	1331.0	1330.5	1331.5	1321.9	1317.3	1322.9	1326.4	1332.6	1328.0
42.5°	1459.9	1457.4	1449.2	1448.2	1442.6	1439.5	1435.4	1440.0	1445.6	1449.7	1451.2
45°	1579.1	1577.1	1567.9	1567.9	1562.3	1559.7	1561.8	1569.4	1572.0	1577.6	1583.2
47.5°	1696.8	1694.2	1688.1	1690.7	1691.2	1695.7	1702.4	1709.5	1716.6	1724.3	1726.8
50°	1817.0	1817.5	1810.9	1817.0	1824.6	1837.4	1855.2	1866.9	1881.7	1891.3	1894.4
52.5°	1926.5	1928.5	1935.7	1949.9	1965.2	1990.2	2020.7	2049.3	2073.7	2090.0	2089.0
55°	2057.9	2061.0	2078.3	2102.7	2127.7	2165.4	2210.7	2261.2	2301.9	2325.3	2310.6
57.5°	2226.0	2232.6	2252.0	2285.1	2322.3	2371.2	2433.3	2509.2	2572.4	2604.0	2580.0
60°	2456.8	2460.8	2484.3	2520.9	2565.8	2626.4	2709.4	2811.3	2900.4	2942.2	2914.7
62.5°	2760.9	2768.5	2787.4	2824.5	2870.4	2939.2	3040.5	3167.9	3278.9	3337.0	3274.8
65°	3124.1	3148.5	3164.3	3202.0	3244.8	3317.6	3423.6	3560.1	3679.3	3717.5	3645.7
67.5°	3483.7	3505.1	3532.6	3575.9	3619.2	3701.2	3799.5	3931.9	4062.9	4097.5	3985.9
70°	3641.1	3653.3	3696.1	3755.2	3838.2	3935.0	4048.6	4197.3	4359.3	4387.8	4246.2
72.5°	3325.8	3338.0	3385.9	3486.2	3630.9	3784.7	3982.9	4201.4	4415.4	4447.4	4252.4
75°	2515.3	2495.5	2566.3	2699.2	2894.3	3108.8	3385.9	3699.2	4008.4	4048.6	3815.8
77.5°	1300.0	1297.4	1350.9	1515.9	1748.7	1992.7	2297.8	2651.9	2954.4	3076.7	2887.2
80°	366.2	370.3	395.8	477.8	613.8	790.1	1028.4	1360.1	1607.6	1733.9	1628.0
82.5°	143.6	154.9	164.5	179.8	197.6	223.6	298.5	444.2	596.0	712.1	583.2
85°	51.4	55.0	77.9	92.2	93.7	98.8	112.6	131.4	158.4	189.0	155.4
87.5°	19.4	21.4	25.0	41.3	40.8	37.2	45.3	47.4	35.7	32.6	40.2
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°	786.5	786.5	786.5	786.5	786.5	786.5	786.5	786.5
2.5°	784.5	785.0	785.0	785.5	786.0	786.0	787.0	787.0
5°	785.0	785.0	783.9	784.5	783.9	783.9	784.5	784.5
7.5°	783.9	783.4	782.4	781.9	780.9	780.9	780.9	780.9
10°	782.4	781.9	780.9	780.4	779.9	779.9	779.9	779.9
12.5°	786.5	785.0	783.9	783.4	783.4	783.4	783.4	783.4
15°	797.2	793.6	791.1	791.1	791.6	792.6	792.6	793.6
17.5°	810.4	806.4	803.8	801.8	802.8	804.3	805.3	806.4
20°	826.2	824.2	820.6	818.6	818.6	820.6	821.6	822.1
22.5°	848.1	846.6	845.1	842.5	842.5	843.5	845.6	845.6
25°	880.7	879.7	878.7	876.7	876.1	876.1	877.2	878.2
27.5°	921.5	922.0	921.0	920.5	918.9	918.4	920.0	919.4
30°	976.0	978.5	981.1	979.0	976.5	975.0	973.4	971.4
32.5°	1049.8	1046.8	1044.8	1041.2	1036.6	1032.5	1029.5	1025.9
35°	1119.6	1114.5	1112.5	1115.6	1115.0	1112.5	1108.9	1105.9
37.5°	1205.2	1204.2	1205.2	1210.8	1209.8	1212.3	1205.2	1204.7
40°	1313.2	1314.2	1321.3	1328.0	1331.5	1335.1	1331.0	1326.9
42.5°	1438.5	1438.0	1440.5	1449.7	1455.8	1459.9	1451.2	1450.2
45°	1570.9	1567.4	1569.4	1577.1	1583.2	1587.8	1578.1	1578.1
47.5°	1716.6	1710.5	1703.9	1712.6	1716.1	1719.2	1711.5	1709.0
50°	1879.1	1866.4	1852.1	1855.7	1855.7	1854.7	1845.0	1844.5
52.5°	2065.6	2042.1	2016.1	2006.5	2000.9	1994.8	1977.9	1969.8
55°	2280.0	2244.9	2204.1	2179.2	2165.9	2149.1	2121.1	2113.4
57.5°	2530.6	2475.6	2405.3	2374.8	2345.2	2317.7	2286.6	2278.0
60°	2827.6	2746.6	2653.4	2596.8	2564.8	2538.3	2506.2	2504.6
62.5°	3158.7	3030.8	2925.4	2874.5	2851.0	2827.6	2797.0	2801.1
65°	3495.4	3361.9	3263.1	3221.9	3200.0	3180.6	3150.0	3154.6
67.5°	3827.5	3704.8	3596.3	3554.0	3529.5	3505.1	3477.6	3482.2
70°	4065.9	3913.6	3791.4	3697.6	3639.1	3572.8	3530.0	3519.3
72.5°	3997.7	3762.8	3568.8	3382.8	3273.8	3185.2	3125.1	3099.1
75°	3459.7	3138.8	2889.2	2661.0	2532.7	2428.2	2352.3	2305.0
77.5°	2569.3	2208.7	1913.8	1650.9	1443.1	1303.5	1205.2	1141.5
80°	1406.4	1069.7	781.9	549.6	403.9	335.7	296.5	277.6
82.5°	438.1	282.7	208.3	179.8	167.1	159.9	148.2	129.4
85°	139.6	122.3	113.6	108.5	103.4	90.2	62.1	56.5
87.5°	54.0	55.5	55.0	52.0	53.0	38.2	30.6	27.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)