

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: P299887

Luminaire Tested: **GLNA-AF-03-LED-E1-5WQ-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299887
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-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13388.5 lumens
Efficiency: N/A
Efficacy: 108.0 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): 124
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

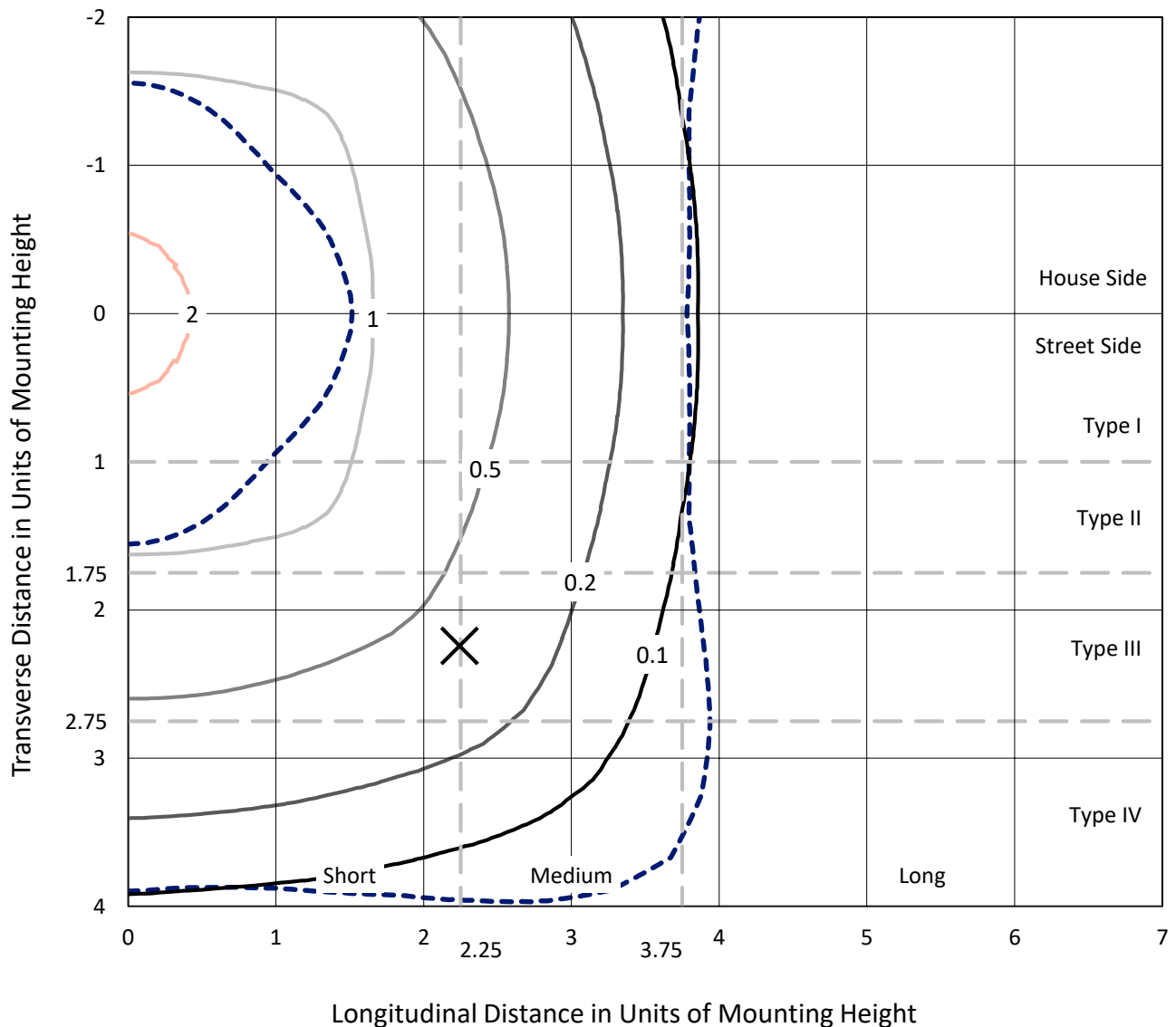


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

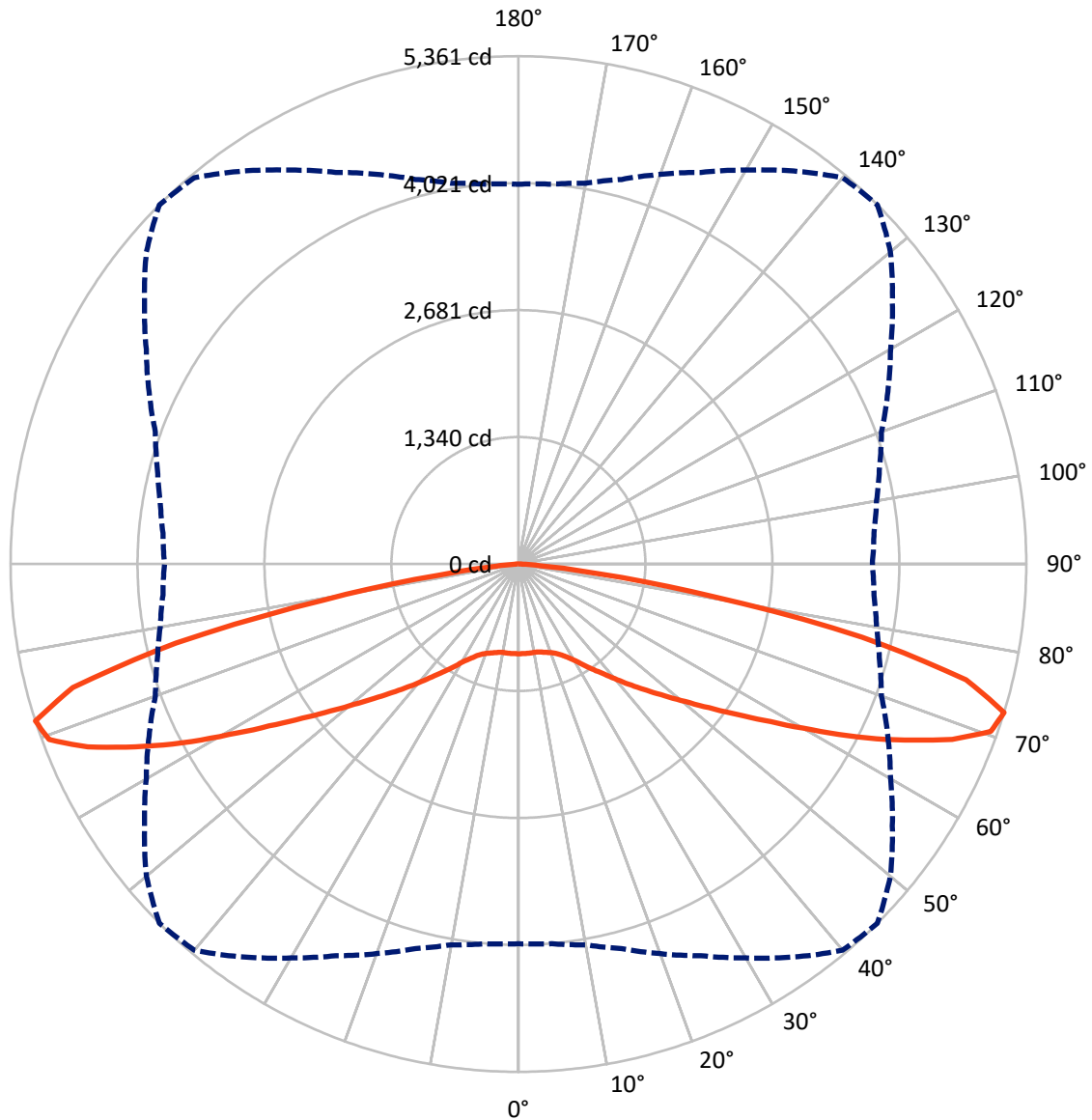


Based on 20 foot mounting height. Maximum calculated value = 2.4 fc
 Type V - Short - Semi-Cutoff

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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	6694.3	0.0	6694.3
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	6694.3	0.0	6694.3
	% Fixture	50.0	0.0	50.0
Total	Lumens	13388.5	0.0	13388.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.5	0.7
10°-20°	275.0	2.1
20°-30°	502.5	3.8
30°-40°	866.3	6.5
40°-50°	1481.0	11.1
50°-60°	2400.5	17.9
60°-70°	3982.4	29.7
70°-80°	3507.5	26.2
80°-90°	282.8	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°	13388.5	100.0
0°-180°	13388.5	100.0



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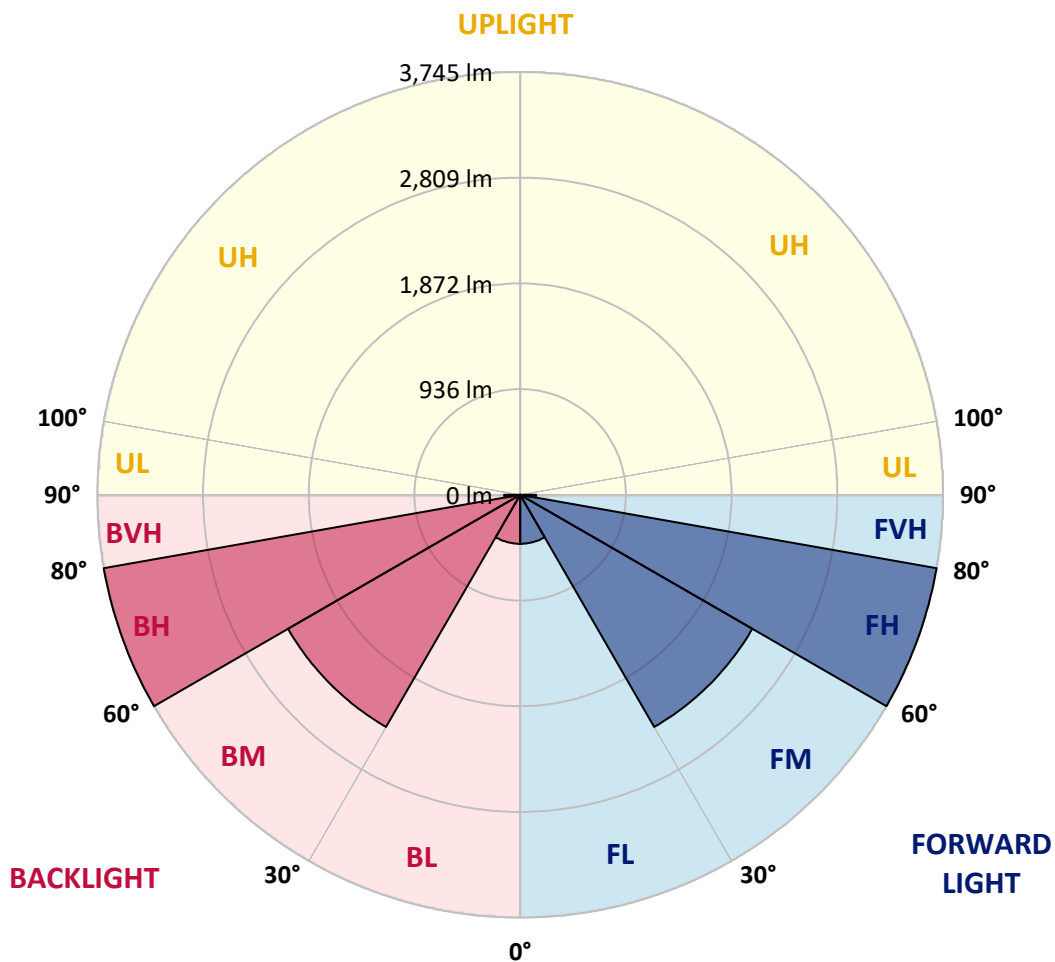
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	434.0	3.2			
FM (30°-60°)	2373.9	17.7			
FH (60°-80°)	3745.0	28.0			G2/5000
FVH (80°-90°)	141.4	1.1			G2/225
BL (0°-30°)	434.0	3.2	B1/500		
BM (30°-60°)	2373.9	17.7	B2/2500		
BH (60°-80°)	3745.0	28.0	B4/5000		G2/5000
BVH (80°-90°)	141.4	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°	948.1	948.1	948.1	948.1	948.1	948.1	948.1	948.1	948.1	948.1	948.1
2.5°	948.1	948.7	949.3	948.7	948.7	948.1	947.5	948.1	947.5	946.3	946.9
5°	951.2	952.4	952.4	951.2	951.8	951.2	950.0	950.6	949.3	947.5	947.5
7.5°	954.9	955.5	955.5	954.3	954.9	953.6	952.4	951.8	950.6	948.1	946.3
10°	960.4	961.0	960.4	959.2	959.2	957.3	954.3	953.0	950.6	946.9	945.0
12.5°	966.5	967.2	966.5	965.3	964.7	961.6	959.2	957.3	955.5	952.4	949.3
15°	975.1	976.4	975.1	972.7	970.8	968.4	967.2	967.8	968.4	965.9	962.9
17.5°	991.1	991.7	989.9	984.3	981.9	979.4	979.4	980.7	982.5	981.3	978.2
20°	1020.6	1018.7	1014.4	1007.7	1004.6	1000.3	999.7	1000.3	1000.3	999.7	997.2
22.5°	1057.4	1056.2	1050.7	1042.1	1037.8	1035.3	1031.6	1028.6	1027.9	1026.1	1023.6
25°	1101.6	1101.0	1094.3	1086.9	1083.8	1080.8	1077.7	1073.4	1069.7	1065.4	1062.9
27.5°	1158.1	1155.7	1145.8	1142.2	1137.9	1136.0	1131.7	1126.8	1123.7	1118.2	1115.1
30°	1220.1	1220.1	1212.2	1210.9	1210.9	1206.6	1201.7	1193.1	1187.6	1182.1	1180.2
32.5°	1282.2	1282.8	1274.8	1277.3	1279.1	1282.2	1283.4	1280.3	1276.6	1276.0	1272.3
35°	1371.8	1369.4	1361.4	1363.2	1362.6	1362.0	1362.0	1368.8	1370.0	1371.2	1363.8
37.5°	1483.0	1483.0	1475.0	1475.0	1471.3	1467.6	1462.7	1467.0	1473.8	1475.6	1470.7
40°	1610.1	1614.4	1604.6	1603.9	1605.2	1593.5	1588.0	1594.7	1599.0	1606.4	1600.9
42.5°	1759.9	1756.8	1747.0	1745.8	1739.0	1735.3	1730.4	1736.0	1742.7	1747.6	1749.5
45°	1903.6	1901.1	1890.1	1890.1	1883.3	1880.3	1882.7	1891.9	1895.0	1901.8	1908.5
47.5°	2045.5	2042.4	2035.0	2038.1	2038.7	2044.2	2052.2	2060.8	2069.4	2078.6	2081.7
50°	2190.4	2191.0	2183.0	2190.4	2199.6	2214.9	2236.4	2250.5	2268.4	2280.0	2283.7
52.5°	2322.4	2324.8	2333.4	2350.6	2369.1	2399.2	2436.0	2470.4	2499.9	2519.5	2518.3
55°	2480.8	2484.5	2505.4	2534.9	2564.9	2610.4	2665.0	2725.8	2775.0	2803.2	2785.4
57.5°	2683.5	2691.4	2714.8	2754.7	2799.5	2858.5	2933.4	3024.9	3101.0	3139.1	3110.2
60°	2961.6	2966.5	2994.8	3039.0	3093.0	3166.1	3266.2	3389.0	3496.5	3546.8	3513.7
62.5°	3328.2	3337.4	3360.2	3405.0	3460.3	3543.2	3665.4	3818.9	3952.7	4022.7	3947.8
65°	3766.1	3795.5	3814.6	3860.0	3911.6	3999.4	4127.1	4291.7	4435.4	4481.4	4394.9
67.5°	4199.6	4225.4	4258.5	4310.7	4362.9	4461.8	4580.3	4740.0	4897.8	4939.5	4805.1
70°	4389.3	4404.1	4455.7	4526.9	4627.0	4743.7	4880.6	5059.9	5255.2	5289.6	5118.8
72.5°	4009.2	4024.0	4081.7	4202.7	4377.1	4562.5	4801.4	5064.8	5322.7	5361.4	5126.2
75°	3032.3	3008.3	3093.7	3253.9	3489.1	3747.6	4081.7	4459.3	4832.1	4880.6	4600.0
77.5°	1567.1	1564.0	1628.5	1827.5	2108.1	2402.2	2770.0	3196.8	3561.6	3709.0	3480.5
80°	441.5	446.4	477.1	576.0	739.9	952.4	1239.8	1639.6	1938.0	2090.3	1962.6
82.5°	173.2	186.7	198.3	216.8	238.3	269.6	359.8	535.5	718.5	858.5	703.1
85°	62.0	66.3	94.0	111.1	113.0	119.1	135.7	158.4	191.0	227.8	187.3
87.5°	23.3	25.8	30.1	49.7	49.1	44.8	54.7	57.1	43.0	39.3	48.5
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°	948.1	948.1	948.1	948.1	948.1	948.1	948.1	948.1
2.5°	945.7	946.3	946.3	946.9	947.5	947.5	948.7	948.7
5°	946.3	946.3	945.0	945.7	945.0	945.0	945.7	945.7
7.5°	945.0	944.4	943.2	942.6	941.4	941.4	941.4	941.4
10°	943.2	942.6	941.4	940.7	940.1	940.1	940.1	940.1
12.5°	948.1	946.3	945.0	944.4	944.4	944.4	944.4	944.4
15°	961.0	956.7	953.6	953.6	954.3	955.5	955.5	956.7
17.5°	977.0	972.1	969.0	966.5	967.8	969.6	970.8	972.1
20°	996.0	993.6	989.3	986.8	986.8	989.3	990.5	991.1
22.5°	1022.4	1020.6	1018.7	1015.7	1015.7	1016.9	1019.3	1019.3
25°	1061.7	1060.5	1059.3	1056.8	1056.2	1056.2	1057.4	1058.6
27.5°	1110.8	1111.5	1110.2	1109.6	1107.8	1107.2	1109.0	1108.4
30°	1176.5	1179.6	1182.7	1180.2	1177.2	1175.3	1173.5	1171.0
32.5°	1265.6	1261.9	1259.4	1255.1	1249.6	1244.7	1241.0	1236.7
35°	1349.7	1343.6	1341.1	1344.8	1344.2	1341.1	1336.8	1333.1
37.5°	1452.9	1451.6	1452.9	1459.6	1458.4	1461.5	1452.9	1452.3
40°	1583.1	1584.3	1592.9	1600.9	1605.2	1609.5	1604.6	1599.6
42.5°	1734.1	1733.5	1736.6	1747.6	1755.0	1759.9	1749.5	1748.2
45°	1893.8	1889.5	1891.9	1901.1	1908.5	1914.0	1902.4	1902.4
47.5°	2069.4	2062.0	2054.0	2064.5	2068.8	2072.5	2063.3	2060.2
50°	2265.3	2249.9	2232.7	2237.0	2237.0	2235.8	2224.1	2223.5
52.5°	2490.0	2461.8	2430.5	2418.8	2412.0	2404.7	2384.4	2374.6
55°	2748.6	2706.2	2657.1	2627.0	2611.0	2590.7	2557.0	2547.8
57.5°	3050.7	2984.4	2899.6	2862.8	2827.2	2794.0	2756.5	2746.1
60°	3408.7	3311.0	3198.7	3130.5	3091.8	3059.9	3021.2	3019.4
62.5°	3807.8	3653.7	3526.6	3465.2	3436.9	3408.7	3371.8	3376.7
65°	4213.7	4052.8	3933.7	3884.0	3857.6	3834.2	3797.4	3802.9
67.5°	4614.1	4466.1	4335.3	4284.3	4254.9	4225.4	4192.2	4197.7
70°	4901.5	4717.9	4570.5	4457.5	4386.9	4307.1	4255.5	4242.6
72.5°	4819.2	4536.1	4302.1	4078.0	3946.6	3839.7	3767.3	3736.0
75°	4170.7	3783.9	3483.0	3207.9	3053.1	2927.2	2835.8	2778.6
77.5°	3097.3	2662.6	2307.0	1990.2	1739.6	1571.4	1452.9	1376.1
80°	1695.4	1289.5	942.6	662.6	487.0	404.7	357.4	334.7
82.5°	528.1	340.8	251.2	216.8	201.4	192.8	178.7	156.0
85°	168.3	147.4	136.9	130.8	124.7	108.7	74.9	68.2
87.5°	65.1	66.9	66.3	62.6	63.9	46.1	36.8	32.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)