

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: P299704

Luminaire Tested: **GLNA-AF-02-LED-E1-5MQ-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299704
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-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8399.1 lumens
Efficiency: N/A
Efficacy: 127.3 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): 66
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

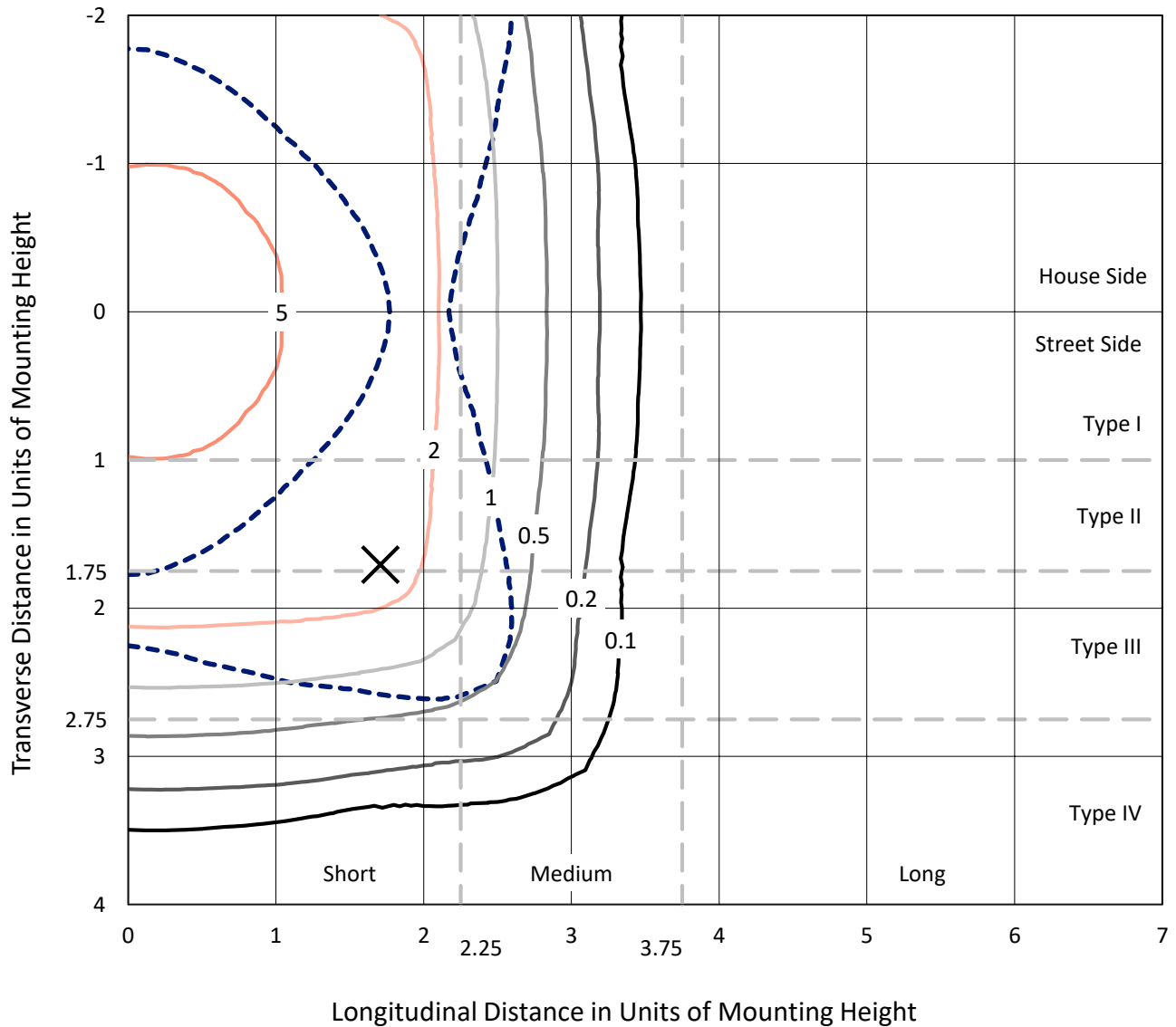


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

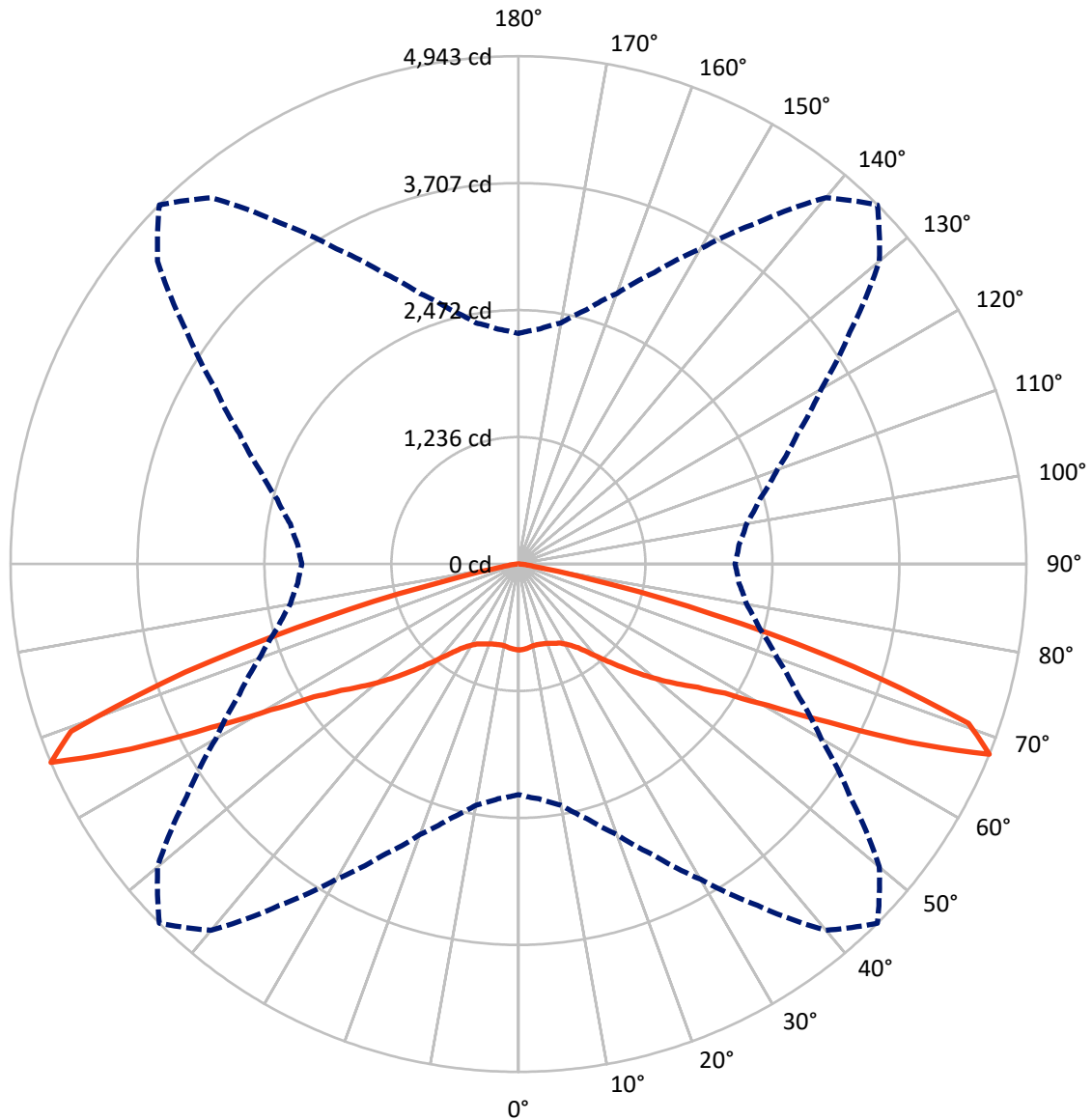


Based on 10 foot mounting height. Maximum calculated value = 8.4 fc
 Type V - Short - Full Cutoff

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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
House Side	Lumens	4199.6	0.0	4199.6
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	4199.6	0.0	4199.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	8399.1	0.0	8399.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.3	0.9
10°-20°	227.3	2.7
20°-30°	386.5	4.6
30°-40°	631.7	7.5
40°-50°	1127.8	13.4
50°-60°	1901.4	22.6
60°-70°	2950.7	35.1
70°-80°	1036.8	12.3
80°-90°	58.6	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°	8399.1	100.0
0°-180°	8399.1	100.0



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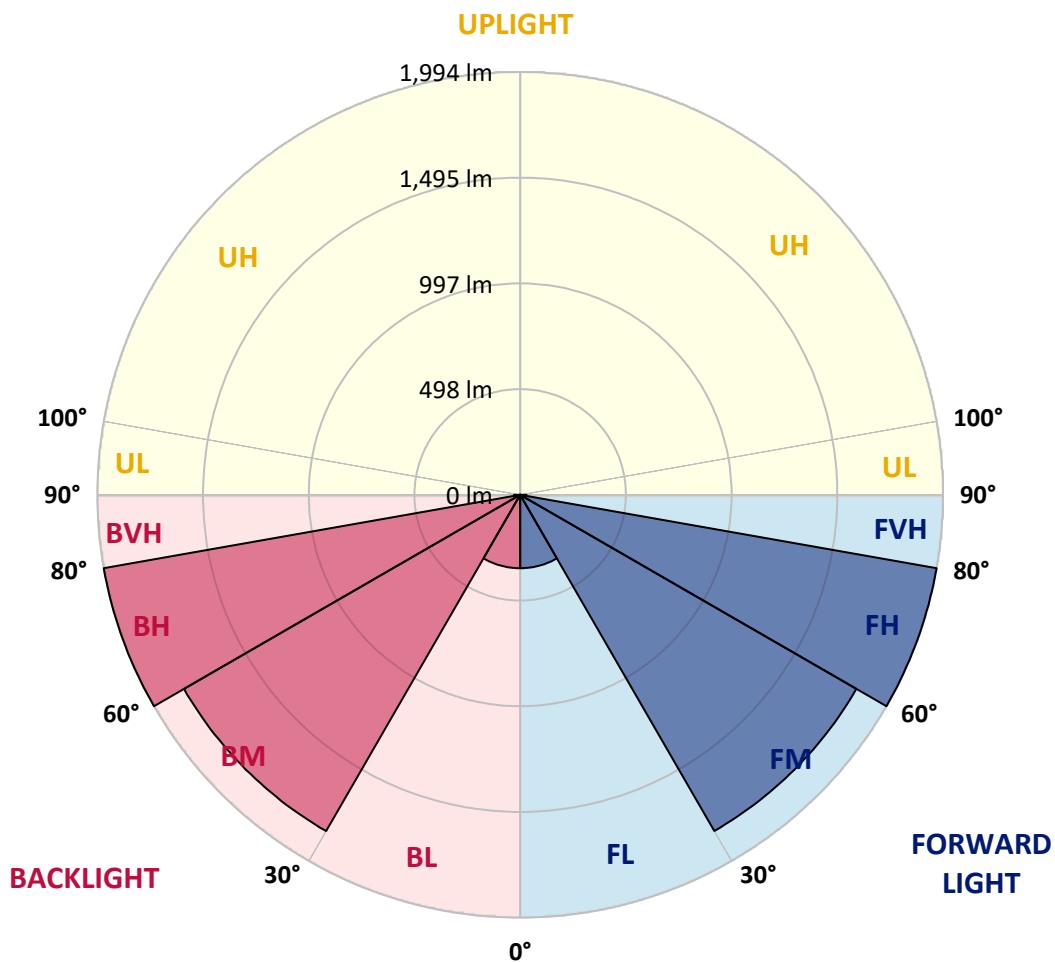
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	346.1	4.1			
FM	(30°-60°)	1830.5	21.8			
FH	(60°-80°)	1993.8	23.7			G2/5000
FVH	(80°-90°)	29.3	0.3			G1/100
BL	(0°-30°)	346.1	4.1	B1/500		
BM	(30°-60°)	1830.5	21.8	B2/2500		
BH	(60°-80°)	1993.8	23.7	B3/2500		G2/5000
BVH	(80°-90°)	29.3	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°	837.0	837.0	837.0	837.0	837.0	837.0	837.0	837.0	837.0	837.0	837.0
2.5°	833.9	834.7	834.7	834.7	834.3	834.3	833.5	834.3	833.9	832.8	833.1
5°	827.0	827.7	827.7	827.4	828.5	828.1	827.0	827.7	827.4	826.6	827.0
7.5°	816.9	818.1	818.1	817.7	818.9	818.5	817.7	818.1	818.1	816.9	816.9
10°	805.7	806.5	806.5	806.1	808.0	808.0	807.7	808.8	809.2	808.0	807.3
12.5°	795.3	796.5	796.5	798.0	799.9	800.7	802.6	804.2	805.7	805.3	803.8
15°	789.1	789.9	791.4	793.4	796.5	799.2	802.2	805.7	808.8	809.6	807.3
17.5°	785.3	786.4	788.7	791.4	795.7	800.3	804.9	809.6	813.8	815.4	812.7
20°	784.1	784.9	787.2	791.8	797.6	804.6	811.1	816.5	822.3	824.3	822.3
22.5°	786.4	788.0	790.7	796.1	803.8	812.7	820.4	827.7	835.1	838.6	835.9
25°	796.8	798.4	801.9	808.8	817.3	826.6	835.5	844.0	850.5	854.0	852.1
27.5°	816.2	818.1	822.3	829.3	838.6	848.6	858.3	865.2	870.6	871.8	869.5
30°	845.1	849.4	854.4	862.1	872.9	881.4	891.1	897.3	903.8	903.8	901.9
32.5°	890.3	894.6	900.0	907.3	915.8	925.1	933.6	939.0	945.9	946.3	941.7
35°	957.9	959.8	964.5	969.1	976.8	984.9	992.3	995.8	1001.6	1001.9	997.7
37.5°	1047.1	1047.5	1050.6	1052.2	1059.1	1068.0	1074.9	1077.3	1082.7	1081.9	1077.6
40°	1151.0	1153.0	1154.1	1156.4	1163.8	1172.3	1179.6	1180.8	1186.6	1185.4	1180.0
42.5°	1271.2	1271.9	1278.5	1282.0	1288.9	1293.2	1302.4	1303.6	1310.6	1307.5	1301.3
45°	1406.0	1412.9	1419.1	1426.0	1433.4	1438.4	1445.7	1444.2	1448.8	1444.2	1440.7
47.5°	1547.7	1552.7	1566.6	1577.5	1589.4	1593.7	1604.1	1599.5	1604.1	1597.5	1596.4
50°	1703.8	1712.6	1724.6	1737.0	1749.7	1756.7	1770.2	1764.4	1770.6	1764.4	1760.9
52.5°	1857.5	1859.8	1886.1	1904.2	1922.0	1930.1	1938.2	1935.5	1935.9	1935.5	1932.0
55°	2003.5	2008.9	2035.2	2059.9	2090.8	2113.6	2127.5	2125.9	2122.5	2119.0	2113.2
57.5°	2168.0	2173.4	2203.6	2234.1	2269.2	2301.7	2329.9	2358.8	2370.0	2373.1	2360.4
60°	2390.5	2390.1	2430.3	2467.4	2517.6	2565.9	2627.7	2690.6	2762.9	2796.5	2752.0
62.5°	2616.9	2626.1	2684.1	2749.7	2853.2	2954.1	3068.0	3180.0	3294.3	3387.4	3288.6
65°	2589.8	2625.4	2711.5	2860.2	3051.4	3278.5	3524.2	3784.1	4019.0	4180.4	3999.3
67.5°	2244.5	2295.1	2382.8	2563.6	2802.6	3130.2	3542.7	4056.8	4654.3	4943.3	4585.2
70°	1626.9	1684.1	1776.0	1952.5	2189.3	2500.6	2948.7	3565.9	4356.9	4648.2	4253.8
72.5°	809.6	840.5	897.3	1009.7	1188.9	1441.5	1847.8	2441.1	3141.0	3408.3	3047.9
75°	275.0	289.3	299.0	335.7	392.4	491.7	693.7	1067.2	1628.1	1951.7	1604.9
77.5°	158.7	159.1	165.7	172.3	181.9	192.7	219.8	288.5	499.0	708.8	516.4
80°	102.7	102.4	107.8	112.8	119.4	124.8	126.3	133.6	154.1	182.7	163.4
82.5°	53.3	59.9	71.8	78.4	90.8	93.1	90.0	87.3	92.3	95.8	98.1
85°	29.4	25.5	38.2	49.4	54.8	55.6	55.6	52.5	54.5	53.3	57.9
87.5°	13.5	12.4	15.1	24.3	25.9	22.0	23.2	20.5	14.7	14.3	16.2
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°	837.0	837.0	837.0	837.0	837.0	837.0	837.0	837.0
2.5°	833.1	833.5	833.5	834.7	835.1	835.9	836.6	837.0
5°	826.6	827.7	827.0	828.1	828.1	828.9	828.9	829.3
7.5°	816.9	818.1	818.1	818.1	817.7	818.9	818.9	818.9
10°	806.9	807.7	807.3	806.5	805.7	806.9	806.5	806.1
12.5°	803.8	801.9	800.3	799.5	798.0	798.4	797.2	797.2
15°	805.7	802.2	799.5	798.4	796.8	796.1	795.3	795.7
17.5°	810.7	806.5	803.0	801.1	799.2	798.0	796.5	796.8
20°	819.6	814.6	809.6	805.7	802.2	800.3	799.2	798.8
22.5°	832.8	825.4	818.1	812.3	807.7	804.9	803.8	803.0
25°	847.8	839.7	831.2	824.6	820.0	816.5	814.2	814.2
27.5°	866.8	860.2	852.5	844.7	840.5	837.0	835.5	834.7
30°	898.4	892.2	886.1	878.7	873.3	869.8	867.1	864.8
32.5°	939.0	934.0	928.9	923.5	918.5	913.9	909.6	907.7
35°	996.1	992.3	988.8	982.6	980.7	978.0	975.7	973.7
37.5°	1074.9	1073.4	1073.4	1066.8	1065.3	1064.1	1061.8	1062.2
40°	1178.5	1180.0	1178.1	1175.8	1174.6	1171.5	1171.5	1174.2
42.5°	1300.9	1302.1	1306.3	1302.4	1306.7	1302.8	1300.5	1302.4
45°	1443.0	1447.3	1455.8	1451.9	1454.6	1448.1	1439.9	1440.3
47.5°	1602.6	1606.4	1609.9	1607.2	1607.6	1596.8	1586.0	1583.2
50°	1768.3	1769.8	1771.7	1767.9	1768.6	1756.7	1744.3	1744.7
52.5°	1932.0	1939.4	1947.1	1936.7	1934.4	1920.8	1903.5	1896.5
55°	2119.4	2129.8	2120.9	2102.8	2084.6	2066.5	2043.7	2039.8
57.5°	2350.3	2332.6	2304.8	2270.4	2245.3	2219.8	2196.6	2187.0
60°	2671.7	2604.9	2554.7	2503.7	2471.6	2440.3	2409.8	2405.2
62.5°	3125.9	3010.5	2910.4	2805.0	2718.8	2651.6	2597.9	2582.9
65°	3695.3	3422.2	3185.4	2964.5	2772.5	2627.7	2536.5	2496.3
67.5°	3940.2	3401.0	2995.0	2681.4	2430.3	2254.9	2156.4	2107.4
70°	3462.4	2820.4	2378.9	2064.9	1836.2	1649.3	1560.1	1507.5
72.5°	2382.0	1794.1	1418.7	1158.0	975.3	818.9	757.1	752.4
75°	1069.5	708.4	488.2	376.2	316.7	275.4	262.7	253.0
77.5°	299.3	221.3	197.4	184.6	172.3	158.0	152.6	153.7
80°	145.6	137.5	132.1	124.0	112.8	100.8	95.4	97.7
82.5°	96.6	95.4	98.9	93.1	76.9	65.3	54.8	50.2
85°	58.7	59.5	60.6	61.0	51.8	36.3	24.7	27.8
87.5°	23.2	26.7	29.0	30.1	28.2	17.4	13.9	14.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)