

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: INVUE

Report Number: P140445

Luminaire Tested: **ECM-F03-LED-E1-5WQ**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P140445
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33687)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ECM-F03-LED-E1-5WQ
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE WIDE
Light Source: (21) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7398.4 lumens
Efficiency: N/A
Efficacy: 94.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G2

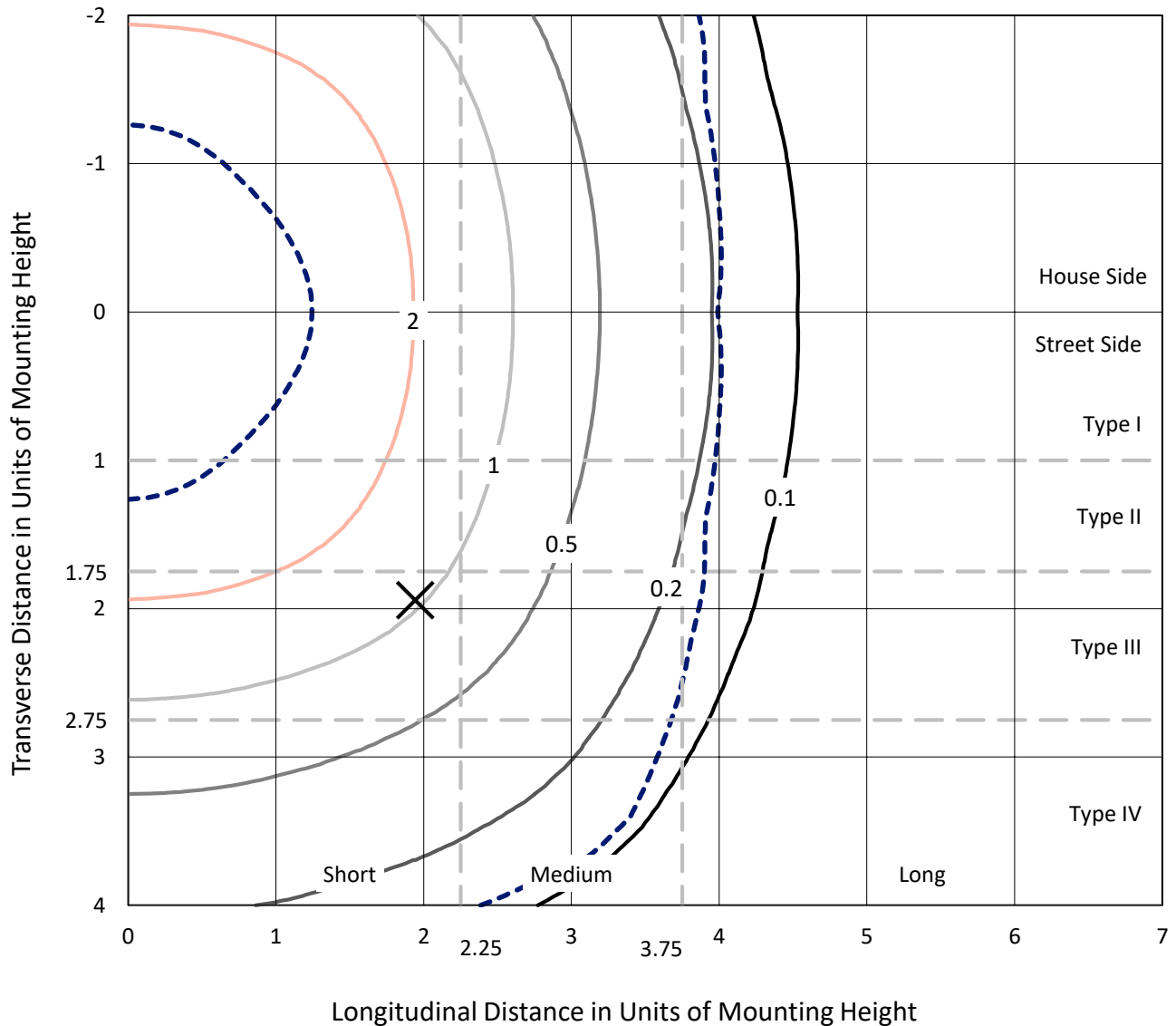
Input Watts (W): 78.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

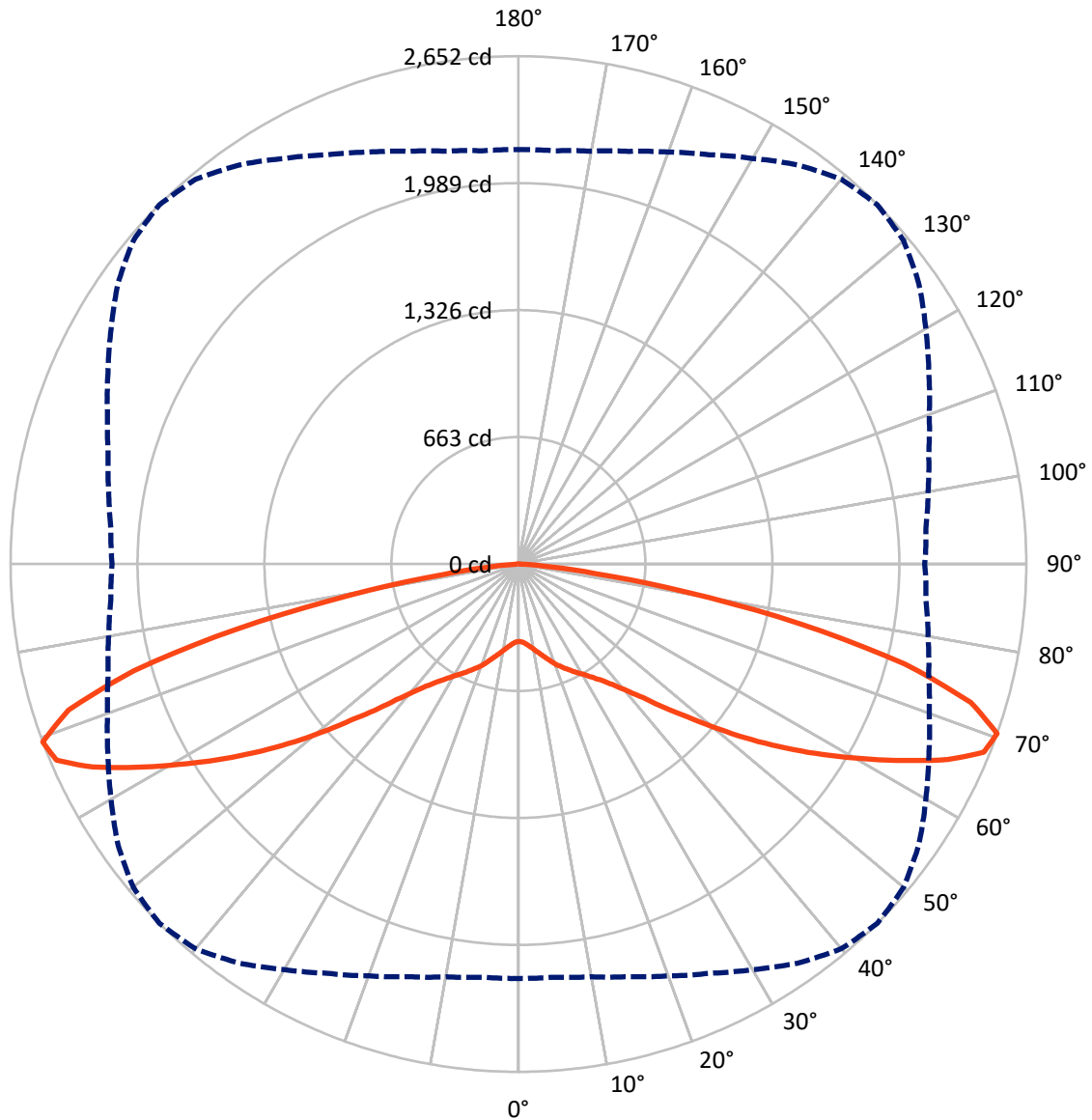
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.6 fc
 Type V - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3699.2	0.0	3699.2
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	3699.2	0.0	3699.2
	% Fixture	50.0	0.0	50.0
Total	Lumens	7398.4	0.0	7398.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.0	0.6
10°-20°	143.3	1.9
20°-30°	281.5	3.8
30°-40°	465.8	6.3
40°-50°	815.3	11.0
50°-60°	1454.3	19.7
60°-70°	2245.2	30.3
70°-80°	1777.2	24.0
80°-90°	174.9	2.4
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°	7398.4	100.0
0°-180°	7398.4	100.0



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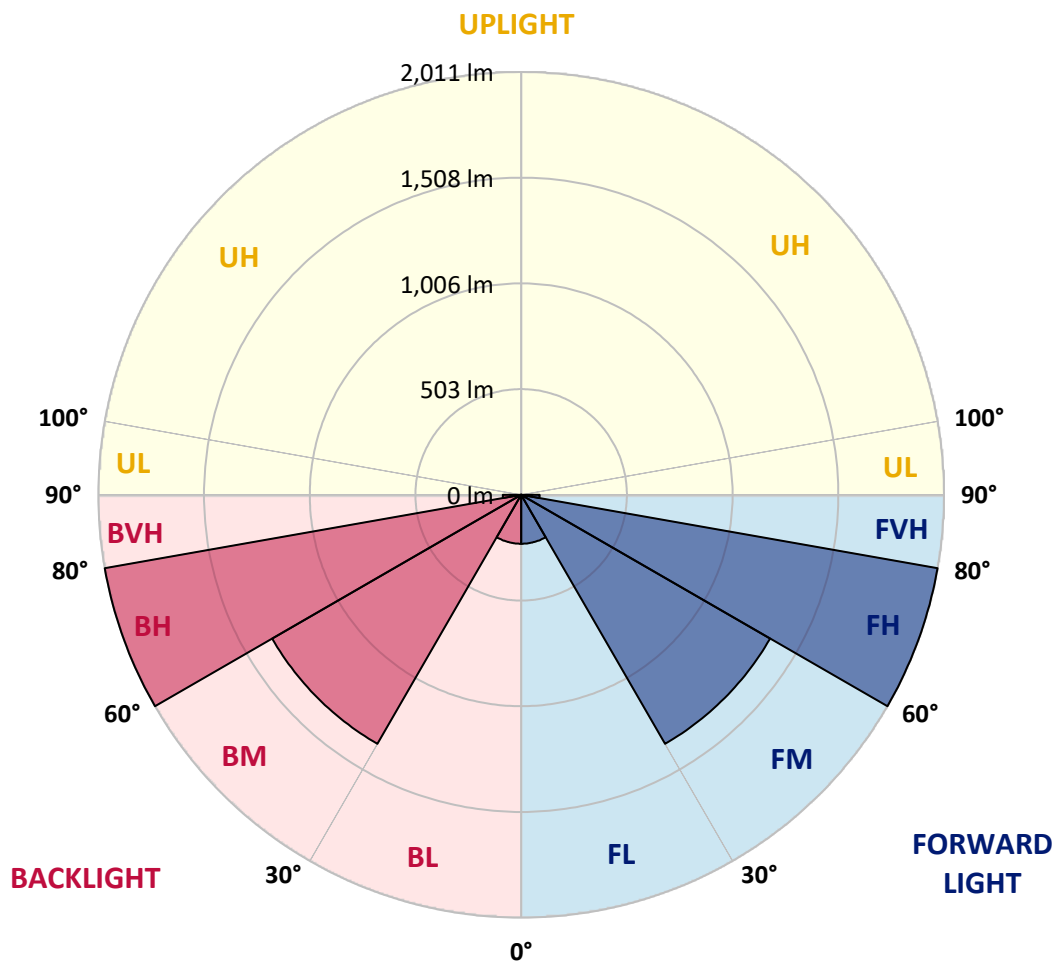
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	232.9	3.1			
FM (30°-60°)	1367.7	18.5			
FH (60°-80°)	2011.2	27.2			G2/5000
FVH (80°-90°)	87.4	1.2			G1/100
BL (0°-30°)	232.9	3.1	B1/500		
BM (30°-60°)	1367.7	18.5	B2/2500		
BH (60°-80°)	2011.2	27.2	B3/2500		G2/5000
BVH (80°-90°)	87.4	1.2			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°	404.5	404.5	404.5	404.5	404.5	404.5	404.5	404.5	404.5	404.5	404.5
2.5°	409.5	409.5	408.6	408.6	408.6	408.6	407.8	407.8	408.6	407.8	407.8
5°	419.4	420.2	420.2	419.4	419.4	419.4	419.4	419.4	420.2	419.4	419.4
7.5°	434.2	435.1	435.1	434.2	434.2	434.2	434.2	434.2	435.1	435.1	433.4
10°	452.4	453.2	453.2	452.4	452.4	453.2	453.2	453.2	454.0	454.0	453.2
12.5°	473.9	474.7	475.5	474.7	475.5	475.5	476.3	477.2	477.2	477.2	475.5
15°	498.6	501.1	499.4	499.4	500.3	501.1	501.1	503.6	502.7	501.9	501.1
17.5°	527.5	526.7	526.7	527.5	528.3	527.5	528.3	530.8	530.0	529.2	528.3
20°	554.8	554.8	554.8	553.9	555.6	555.6	556.4	557.2	557.2	558.9	556.4
22.5°	581.2	581.2	580.3	580.3	582.0	582.0	583.6	585.3	585.3	585.3	583.6
25°	605.9	605.9	606.8	605.9	606.8	607.6	609.2	610.9	611.7	611.7	611.7
27.5°	628.2	630.7	629.9	630.7	632.4	634.0	635.7	638.1	639.8	640.6	638.1
30°	656.3	656.3	655.5	656.3	657.9	660.4	663.7	667.8	667.8	668.7	668.7
32.5°	686.0	686.8	685.2	686.8	689.3	692.6	695.9	699.2	700.9	704.2	703.3
35°	724.8	722.3	723.2	725.6	727.3	730.6	734.7	740.5	743.8	745.4	743.8
37.5°	769.4	768.6	770.2	770.2	776.0	779.3	786.7	791.7	794.2	798.3	796.6
40°	825.5	828.8	829.7	832.1	835.4	842.0	850.3	858.5	863.5	866.8	867.6
42.5°	901.5	903.1	899.8	908.9	918.0	922.1	932.0	943.6	951.0	953.5	954.3
45°	994.8	994.8	999.7	1005.5	1017.0	1025.3	1036.0	1055.0	1061.6	1070.7	1070.7
47.5°	1106.2	1109.5	1109.5	1122.7	1131.8	1148.3	1168.9	1184.6	1198.7	1194.5	1208.6
50°	1235.0	1237.5	1246.5	1254.0	1269.7	1288.6	1307.6	1330.7	1351.4	1353.9	1356.3
52.5°	1369.5	1372.8	1380.3	1397.6	1416.6	1438.1	1472.7	1492.5	1512.4	1523.1	1521.4
55°	1523.9	1522.3	1534.7	1547.9	1575.9	1604.8	1633.7	1661.8	1682.4	1697.3	1696.5
57.5°	1685.7	1691.5	1705.5	1722.0	1746.0	1771.6	1806.2	1834.3	1868.2	1877.2	1864.0
60°	1873.9	1868.2	1882.2	1907.8	1929.3	1962.3	1992.8	2029.1	2053.1	2063.8	2059.7
62.5°	2066.3	2061.3	2072.1	2105.1	2130.7	2154.6	2196.7	2236.3	2256.2	2260.3	2252.9
65°	2207.5	2209.1	2226.4	2255.3	2295.8	2332.1	2379.2	2427.0	2458.4	2463.4	2446.9
67.5°	2240.5	2243.8	2267.7	2304.9	2355.2	2415.5	2485.7	2556.7	2610.3	2621.9	2597.9
70°	2164.5	2166.2	2189.3	2231.4	2289.2	2358.5	2446.0	2544.3	2622.7	2652.4	2626.0
72.5°	2008.5	2015.1	2034.1	2069.6	2115.0	2183.5	2267.7	2355.2	2432.8	2470.8	2470.8
75°	1727.0	1741.9	1750.9	1762.5	1802.1	1857.4	1925.9	1995.3	2063.8	2085.3	2025.0
77.5°	1232.5	1207.7	1213.5	1277.9	1268.8	1331.6	1407.5	1457.1	1518.1	1509.1	1422.4
80°	565.5	551.5	583.6	626.6	681.1	723.2	804.9	813.1	883.3	887.4	824.7
82.5°	113.1	118.9	142.0	175.0	217.9	265.0	307.9	344.2	392.1	401.2	372.3
85°	35.5	38.8	48.7	53.7	56.1	64.4	73.5	99.1	113.9	118.1	110.6
87.5°	7.4	11.6	19.0	21.5	22.3	21.5	21.5	20.6	16.5	13.2	15.7
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°	404.5	404.5	404.5	404.5	404.5	404.5	404.5	404.5
2.5°	407.0	407.0	407.8	407.8	407.8	407.0	406.2	407.0
5°	418.5	418.5	418.5	418.5	416.9	416.9	416.1	416.1
7.5°	433.4	432.6	432.6	431.7	430.9	430.9	430.1	430.9
10°	453.2	451.6	450.7	449.9	449.1	449.1	448.3	447.4
12.5°	474.7	473.9	473.0	471.4	470.5	468.9	468.9	468.9
15°	499.4	498.6	497.8	495.3	495.3	492.8	493.7	493.7
17.5°	526.7	525.0	522.6	521.7	520.9	518.4	518.4	518.4
20°	554.8	551.5	549.8	548.1	548.1	545.7	544.8	544.8
22.5°	582.0	578.7	575.4	573.7	572.1	571.3	569.6	568.8
25°	609.2	605.9	602.6	600.2	596.9	595.2	593.6	593.6
27.5°	636.5	633.2	628.2	624.9	621.6	618.3	616.7	617.5
30°	664.5	661.2	656.3	652.2	648.0	644.7	643.1	642.3
32.5°	700.0	695.9	690.1	686.0	678.6	675.3	673.6	674.5
35°	741.3	735.5	731.4	724.8	719.0	714.9	712.4	712.4
37.5°	794.2	789.2	785.1	778.5	770.2	765.3	762.0	764.4
40°	862.7	858.5	850.3	840.4	833.8	829.7	826.4	827.2
42.5°	950.2	941.9	934.5	928.7	918.8	913.0	903.9	907.3
45°	1060.8	1051.7	1044.3	1035.2	1026.1	1014.6	1011.3	1004.7
47.5°	1194.5	1187.9	1171.4	1163.2	1151.6	1135.1	1126.8	1120.2
50°	1342.3	1329.9	1318.4	1297.7	1284.5	1265.5	1258.1	1255.6
52.5°	1509.1	1488.4	1469.4	1450.4	1424.0	1405.9	1391.0	1394.3
55°	1674.2	1650.2	1623.0	1602.3	1581.7	1559.4	1543.7	1534.7
57.5°	1848.4	1821.9	1793.0	1763.3	1746.0	1719.6	1709.7	1704.7
60°	2027.5	2003.5	1974.7	1947.4	1923.5	1892.9	1876.4	1869.8
62.5°	2225.6	2192.6	2157.9	2124.1	2097.7	2075.4	2058.0	2046.5
65°	2408.1	2362.7	2327.2	2284.2	2255.3	2223.1	2201.7	2197.5
67.5°	2544.3	2474.1	2412.2	2356.9	2312.3	2272.7	2245.4	2234.7
70°	2553.3	2456.8	2365.1	2283.4	2218.2	2172.8	2136.5	2122.4
72.5°	2376.7	2257.0	2133.2	2053.1	1983.7	1921.0	1895.4	1889.6
75°	1933.4	1833.5	1730.3	1639.5	1591.6	1560.2	1538.8	1507.4
77.5°	1343.1	1251.5	1196.2	1094.6	1076.5	1050.9	1029.4	1008.8
80°	752.1	672.0	610.1	546.5	507.7	486.2	463.9	451.6
82.5°	337.6	277.4	220.4	170.9	141.2	111.4	83.4	88.3
85°	84.2	71.0	54.5	45.4	41.3	38.0	30.5	27.2
87.5°	15.7	14.9	13.2	13.2	14.0	11.6	6.6	5.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)