

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: P140293

Luminaire Tested: **ECM-F04-LED-E1-5MQ-8030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P140293
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33686)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ECM-F04-LED-E1-5MQ-8030
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM
Light Source: (28) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8510.7 lumens
Efficiency: N/A
Efficacy: 83.3 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B3 - U0 - G2

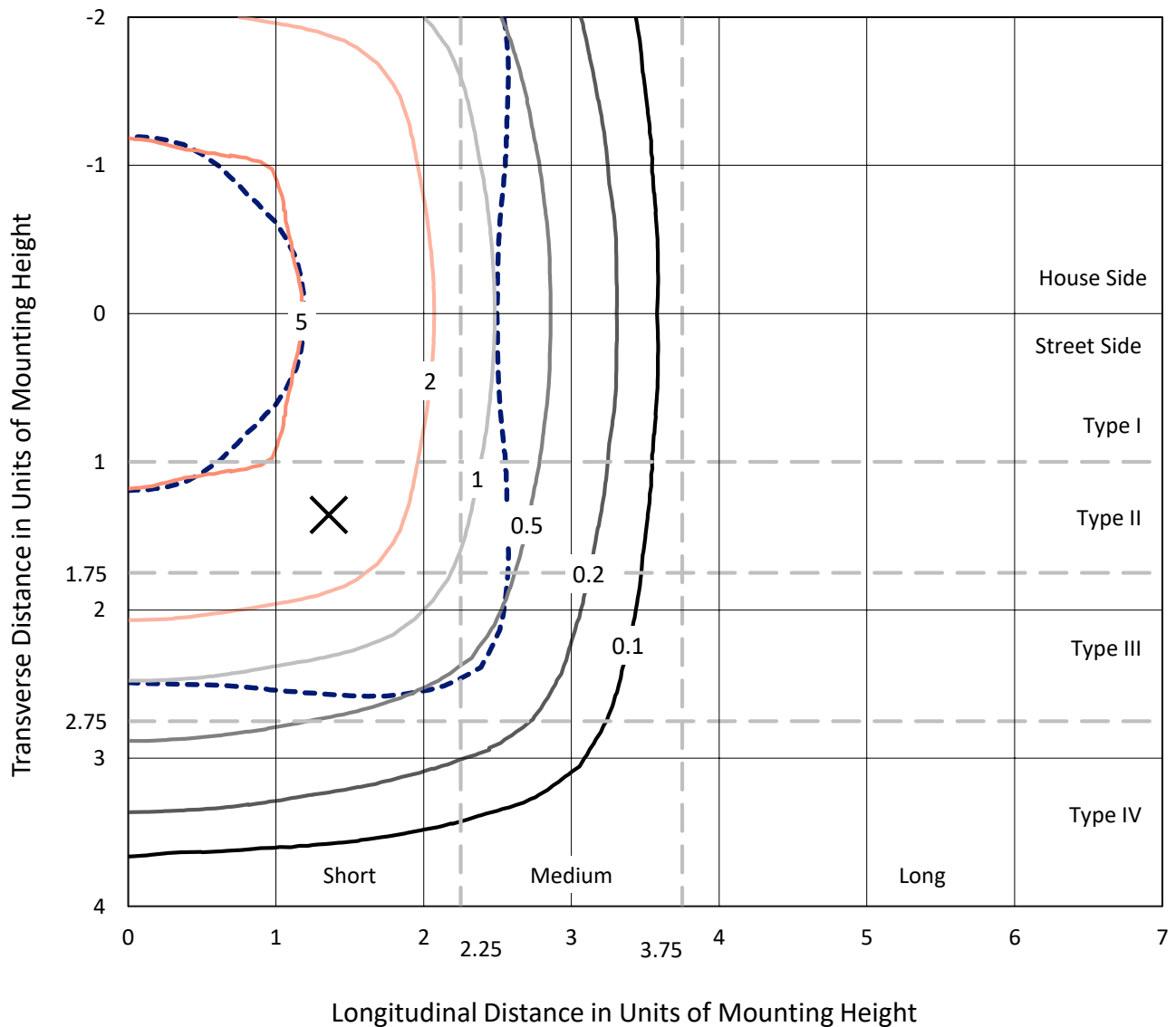
Input Watts (W): 102.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

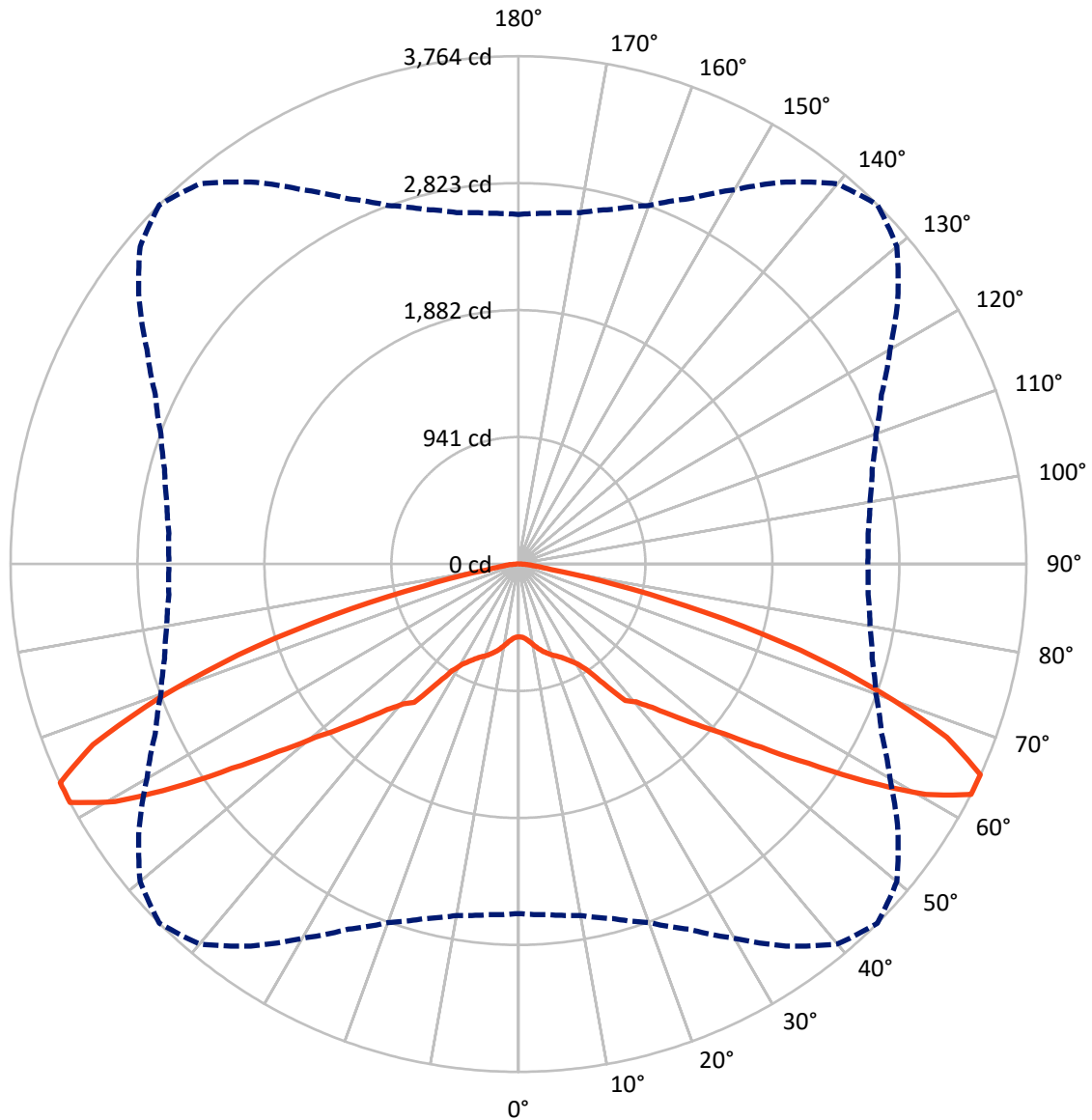
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.2 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4255.3	0.0	4255.3
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	4255.3	0.0	4255.3
	% Fixture	50.0	0.0	50.0
Total	Lumens	8510.7	0.0	8510.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.9	0.6
10°-20°	191.2	2.2
20°-30°	367.4	4.3
30°-40°	706.7	8.3
40°-50°	1229.9	14.5
50°-60°	2209.2	26.0
60°-70°	2708.1	31.8
70°-80°	955.0	11.2
80°-90°	88.3	1.0
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°	8510.7	100.0
0°-180°	8510.7	100.0

Coefficient of Utilization



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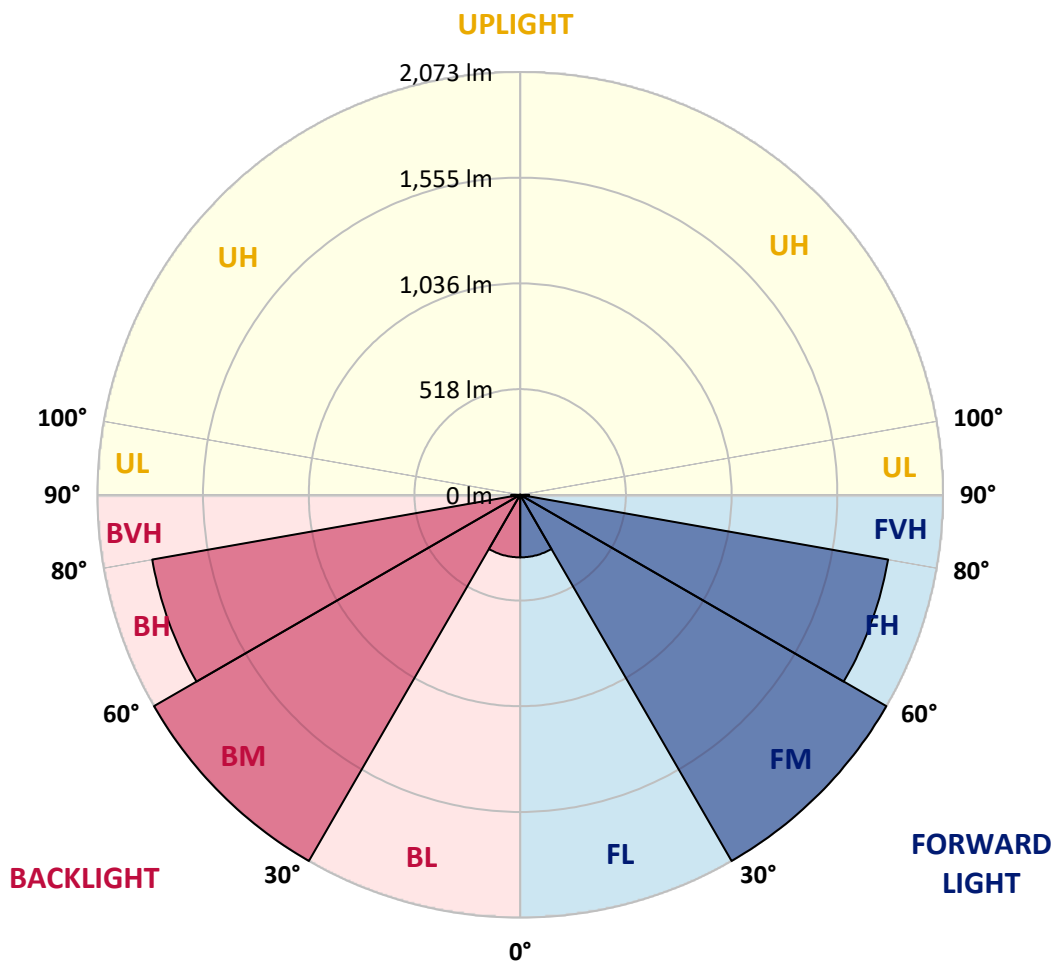
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	306.7	3.6			
FM	(30°-60°)	2072.9	24.4			
FH	(60°-80°)	1831.6	21.5			G2/5000
FVH	(80°-90°)	44.2	0.5			G1/100
BL	(0°-30°)	306.7	3.6	B1/500		
BM	(30°-60°)	2072.9	24.4	B2/2500		
BH	(60°-80°)	1831.6	21.5	B3/2500		G2/5000
BVH	(80°-90°)	44.2	0.5			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°	539.7	539.7	539.7	539.7	539.7	539.7	539.7	539.7	539.7	539.7	539.7
2.5°	546.2	546.2	545.3	544.4	544.4	544.4	543.5	543.5	544.4	542.5	542.5
5°	560.2	561.1	560.2	559.2	558.3	558.3	557.4	557.4	558.3	556.5	555.5
7.5°	586.2	587.1	585.3	584.3	583.4	582.5	581.5	580.6	581.5	578.8	578.8
10°	619.6	619.6	619.6	615.9	615.9	613.1	612.2	610.3	611.3	608.5	608.5
12.5°	653.1	653.1	652.1	650.3	649.4	647.5	645.6	645.6	643.8	640.1	638.2
15°	682.8	683.7	682.8	680.0	679.1	676.3	676.3	674.4	671.7	669.8	667.9
17.5°	710.7	711.6	708.8	707.9	705.1	703.2	701.4	700.5	698.6	695.8	694.9
20°	737.6	736.7	733.9	730.2	728.3	726.5	724.6	723.7	722.7	720.9	720.9
22.5°	763.6	763.6	760.8	755.3	751.5	749.7	746.9	745.0	743.2	742.3	744.1
25°	802.6	801.7	796.1	790.6	784.1	778.5	774.8	773.8	772.0	772.0	772.9
27.5°	852.8	850.9	842.6	835.2	827.7	820.3	815.6	811.9	811.0	810.1	810.1
30°	916.0	913.2	905.8	896.5	888.1	878.8	869.5	866.7	862.1	858.4	864.9
32.5°	1036.7	1038.6	1023.7	1005.2	986.6	968.9	953.1	941.1	933.6	934.6	934.6
35°	1169.6	1170.5	1164.0	1156.6	1151.0	1140.8	1123.1	1108.3	1097.1	1085.0	1090.6
37.5°	1227.2	1228.1	1222.5	1221.6	1225.3	1231.8	1249.5	1262.5	1282.0	1284.8	1279.2
40°	1328.4	1323.8	1316.4	1314.5	1311.7	1321.0	1328.4	1334.9	1337.7	1343.3	1337.7
42.5°	1434.3	1432.5	1426.9	1420.4	1420.4	1422.3	1434.3	1444.6	1451.1	1452.0	1451.1
45°	1553.3	1550.5	1545.8	1544.9	1547.7	1556.0	1564.4	1577.4	1597.8	1598.8	1597.8
47.5°	1684.2	1686.1	1678.7	1681.5	1686.1	1700.0	1723.3	1744.6	1766.9	1775.3	1765.1
50°	1863.5	1857.0	1857.0	1854.2	1866.3	1886.8	1914.6	1939.7	1971.3	1978.7	1962.9
52.5°	2106.9	2093.0	2095.8	2088.3	2094.9	2113.4	2159.0	2198.0	2237.9	2257.4	2226.8
55°	2399.6	2376.3	2379.1	2386.6	2392.1	2423.7	2481.3	2525.9	2601.1	2607.6	2572.3
57.5°	2639.2	2632.7	2636.4	2654.1	2689.4	2744.2	2816.7	2924.4	3017.3	3039.6	3001.5
60°	2726.6	2731.2	2757.2	2803.7	2870.6	2968.1	3109.3	3277.4	3425.2	3469.7	3412.1
62.5°	2590.9	2609.5	2644.8	2721.9	2827.8	2986.7	3203.1	3456.7	3677.8	3764.2	3661.1
65°	2326.2	2338.2	2395.8	2461.8	2598.4	2780.4	3046.1	3375.9	3648.1	3762.4	3647.2
67.5°	1978.7	2002.0	2052.1	2133.9	2251.8	2436.7	2715.4	3052.6	3325.8	3426.1	3324.8
70°	1588.6	1598.8	1630.4	1694.5	1817.1	1980.6	2219.3	2521.3	2786.9	2850.1	2769.3
72.5°	1101.8	1122.2	1149.1	1207.7	1284.8	1423.2	1620.1	1842.2	2055.8	2186.8	2067.9
75°	474.7	447.8	507.2	565.7	660.5	788.7	942.9	1125.0	1336.8	1424.1	1307.1
77.5°	142.1	141.2	150.5	167.2	200.7	265.7	372.5	495.1	658.6	715.3	614.1
80°	116.1	119.8	123.6	127.3	131.0	135.6	144.0	168.1	206.2	243.4	197.9
82.5°	98.5	103.1	113.3	118.9	121.7	122.6	122.6	121.7	117.1	115.2	114.3
85°	74.3	81.8	95.7	104.0	104.0	104.0	104.0	101.3	94.8	83.6	92.9
87.5°	25.1	33.4	55.7	59.5	61.3	56.7	59.5	60.4	50.2	38.1	48.3
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°	539.7	539.7	539.7	539.7	539.7	539.7	539.7	539.7
2.5°	542.5	542.5	542.5	543.5	542.5	542.5	542.5	542.5
5°	556.5	555.5	556.5	555.5	556.5	556.5	555.5	556.5
7.5°	577.8	577.8	578.8	578.8	577.8	577.8	577.8	577.8
10°	606.6	604.8	605.7	605.7	605.7	604.8	604.8	603.8
12.5°	636.4	634.5	634.5	634.5	634.5	633.6	634.5	634.5
15°	664.2	662.4	660.5	660.5	661.4	662.4	662.4	661.4
17.5°	691.2	689.3	686.5	686.5	685.6	687.4	689.3	688.4
20°	718.1	717.2	712.5	712.5	712.5	714.4	715.3	718.1
22.5°	745.0	744.1	740.4	739.5	740.4	744.1	746.9	746.9
25°	773.8	775.7	774.8	774.8	776.6	782.2	785.0	788.7
27.5°	814.7	818.4	819.4	823.1	824.0	830.5	835.2	840.7
30°	867.7	874.2	877.9	884.4	889.0	892.8	899.3	903.9
32.5°	941.1	956.9	975.4	996.8	1006.1	1022.8	1030.2	1032.1
35°	1110.1	1126.9	1142.6	1151.9	1148.2	1152.9	1152.9	1156.6
37.5°	1262.5	1245.8	1231.8	1229.0	1221.6	1218.8	1219.8	1222.5
40°	1333.1	1324.7	1319.2	1321.9	1318.2	1315.4	1317.3	1318.2
42.5°	1447.4	1434.3	1429.7	1428.8	1426.9	1428.8	1433.4	1431.6
45°	1581.1	1564.4	1557.9	1557.0	1554.2	1553.3	1555.1	1558.8
47.5°	1741.8	1721.4	1701.0	1694.5	1694.5	1688.9	1692.6	1687.0
50°	1938.8	1905.3	1884.0	1871.9	1864.5	1856.1	1863.5	1851.5
52.5°	2198.0	2150.6	2127.4	2111.6	2090.2	2091.1	2093.0	2088.3
55°	2525.0	2472.9	2427.4	2396.8	2383.8	2376.3	2374.5	2389.3
57.5°	2901.2	2809.2	2736.8	2682.9	2662.5	2634.6	2621.6	2621.6
60°	3258.9	3091.6	2947.7	2857.5	2790.7	2743.3	2711.7	2702.4
62.5°	3433.5	3179.9	2969.0	2820.4	2714.5	2646.7	2601.1	2589.1
65°	3358.3	3035.9	2787.9	2620.7	2498.0	2410.7	2357.8	2342.9
67.5°	3055.4	2718.2	2457.2	2289.0	2157.1	2062.3	2022.4	2005.7
70°	2537.0	2227.7	2001.0	1836.6	1699.1	1619.2	1564.4	1542.1
72.5°	1823.6	1588.6	1380.5	1239.3	1115.7	1073.9	999.6	992.2
75°	1077.6	873.2	701.4	593.6	483.1	422.7	388.3	351.2
77.5°	438.5	313.1	235.0	177.4	152.4	138.4	131.9	130.1
80°	149.6	133.8	126.3	123.6	119.8	118.0	113.3	109.6
82.5°	118.0	117.1	113.3	112.4	108.7	103.1	93.8	88.3
85°	98.5	96.6	92.0	91.0	88.3	80.8	70.6	64.1
87.5°	55.7	51.1	46.4	47.4	44.6	39.0	28.8	20.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)