

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: P140294

Luminaire Tested: **ECM-F04-LED-E1-5MQ-7030**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P140294  
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-7030  
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE  
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM  
Light Source: (28) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9210.1 lumens  
Efficiency: N/A  
Efficacy: 90.1 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

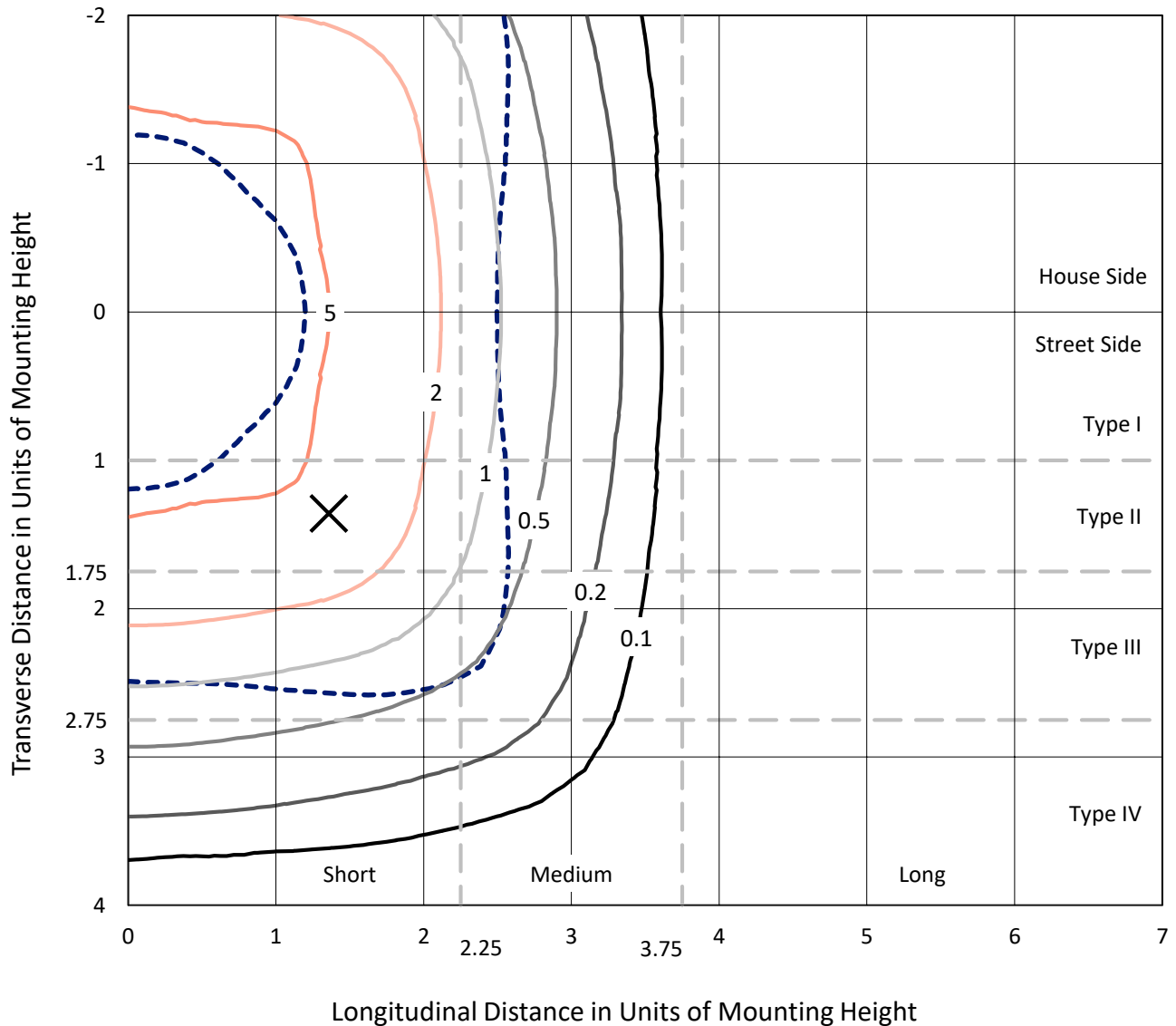
Input Watts (W): 102.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

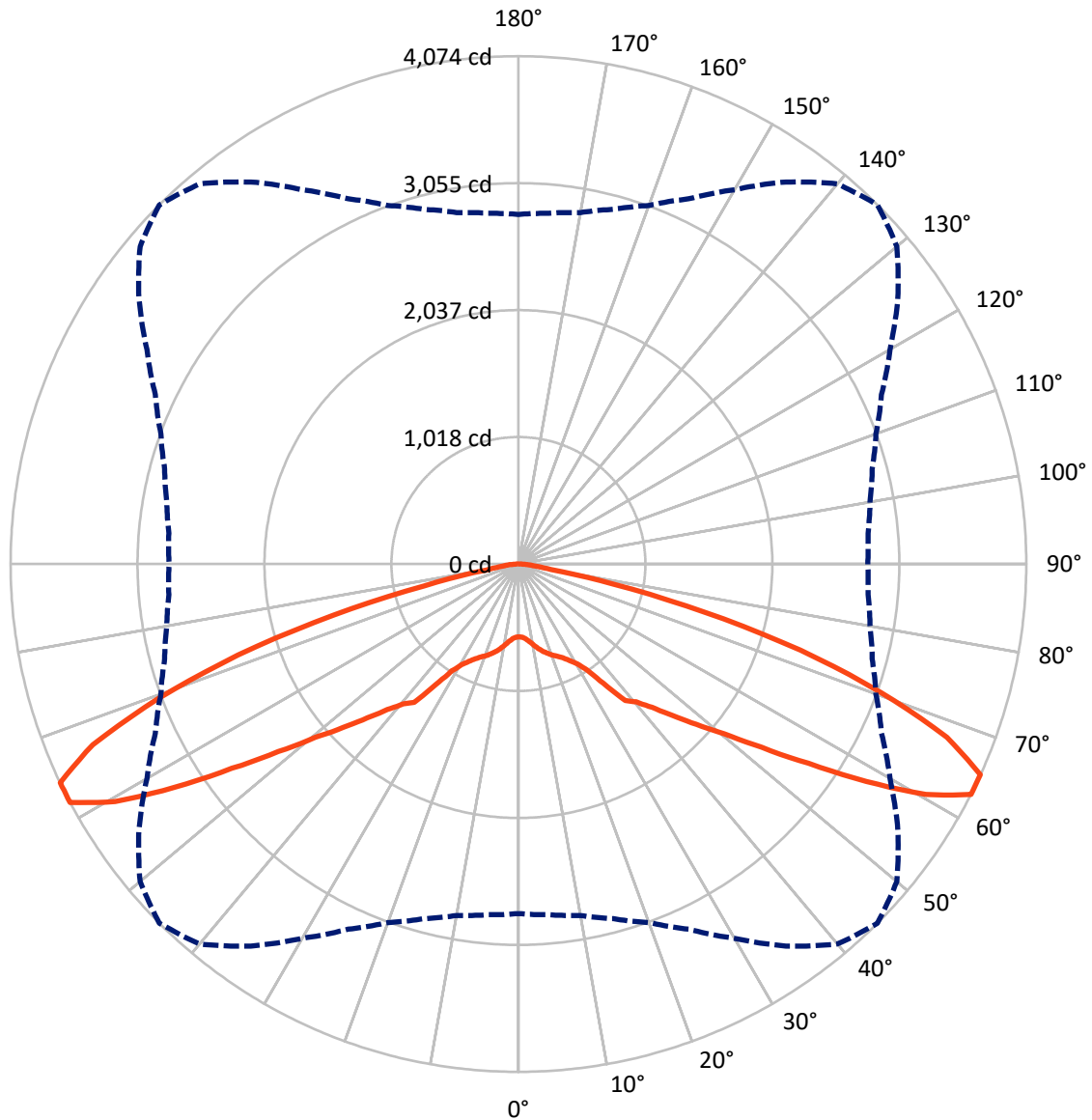
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.7 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
<b>House Side</b>	Lumens	4605.0	0.0	4605.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	4605.0	0.0	4605.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	9210.1	0.0	9210.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.4	0.6
10°-20°	206.9	2.2
20°-30°	397.5	4.3
30°-40°	764.8	8.3
40°-50°	1331.0	14.5
50°-60°	2390.7	26.0
60°-70°	2930.7	31.8
70°-80°	1033.5	11.2
80°-90°	95.6	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°	9210.1	100.0
0°-180°	9210.1	100.0



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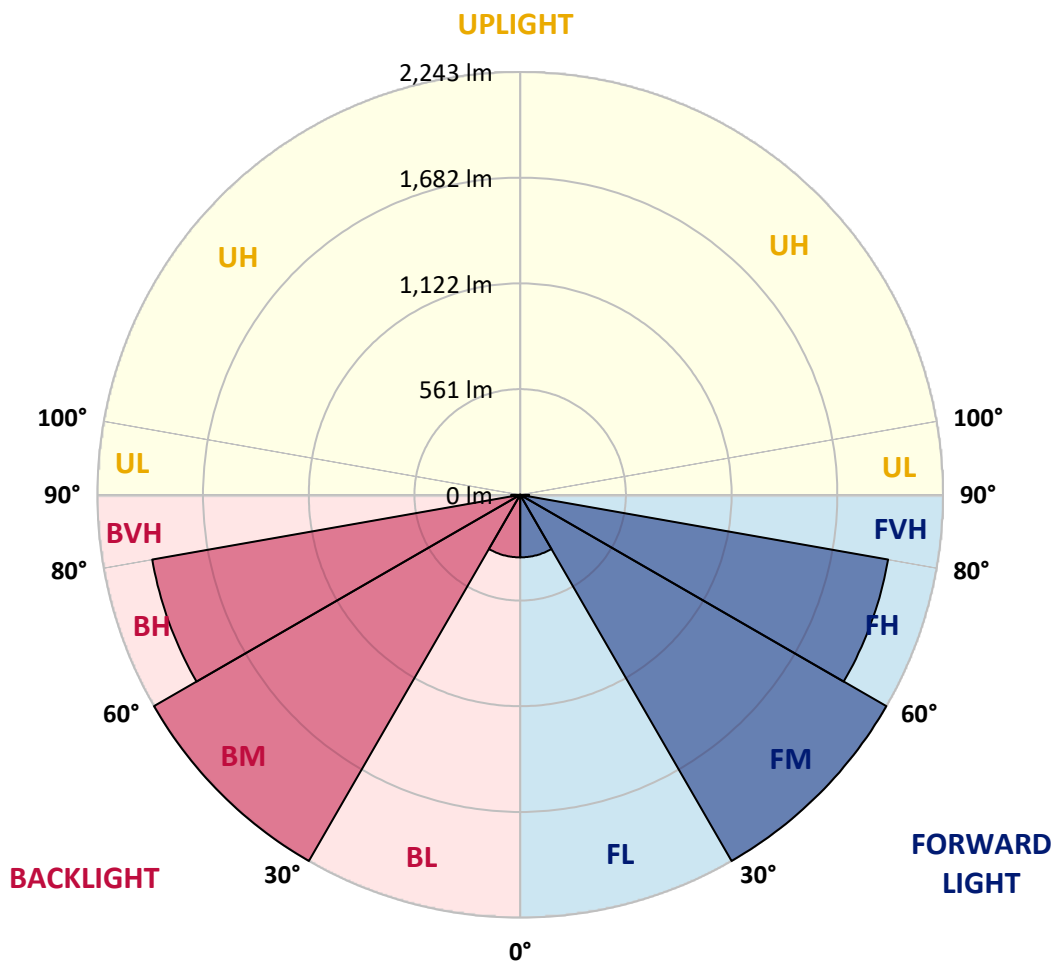
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	331.9	3.6			
FM	(30°-60°)	2243.2	24.4			
FH	(60°-80°)	1982.1	21.5			G2/5000
FVH	(80°-90°)	47.8	0.5			G1/100
BL	(0°-30°)	331.9	3.6	B1/500		
BM	(30°-60°)	2243.2	24.4	B2/2500		
BH	(60°-80°)	1982.1	21.5	B3/2500		G2/5000
BVH	(80°-90°)	47.8	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°	584.1	584.1	584.1	584.1	584.1	584.1	584.1	584.1	584.1	584.1	584.1
2.5°	591.1	591.1	590.1	589.1	589.1	589.1	588.1	588.1	589.1	587.1	587.1
5°	606.2	607.2	606.2	605.2	604.2	604.2	603.2	603.2	604.2	602.2	601.2
7.5°	634.4	635.4	633.4	632.3	631.3	630.3	629.3	628.3	629.3	626.3	626.3
10°	670.6	670.6	670.6	666.5	666.5	663.5	662.5	660.5	661.5	658.5	658.5
12.5°	706.7	706.7	705.7	703.7	702.7	700.7	698.7	698.7	696.7	692.7	690.7
15°	738.9	739.9	738.9	735.9	734.9	731.9	731.9	729.9	726.8	724.8	722.8
17.5°	769.1	770.1	767.1	766.1	763.0	761.0	759.0	758.0	756.0	753.0	752.0
20°	798.2	797.2	794.2	790.2	788.2	786.2	784.2	783.1	782.1	780.1	780.1
22.5°	826.4	826.4	823.4	817.3	813.3	811.3	808.3	806.3	804.3	803.3	805.3
25°	868.6	867.6	861.6	855.5	848.5	842.5	838.4	837.4	835.4	835.4	836.4
27.5°	922.9	920.9	911.8	903.8	895.7	887.7	882.7	878.7	877.6	876.6	876.6
30°	991.3	988.2	980.2	970.1	961.1	951.0	941.0	938.0	932.9	928.9	936.0
32.5°	1121.9	1124.0	1107.9	1087.8	1067.7	1048.6	1031.5	1018.4	1010.4	1011.4	1011.4
35°	1265.7	1266.7	1259.7	1251.6	1245.6	1234.5	1215.4	1199.4	1187.3	1174.2	1180.3
37.5°	1328.0	1329.0	1323.0	1322.0	1326.0	1333.1	1352.2	1366.2	1387.3	1390.4	1384.3
40°	1437.6	1432.6	1424.5	1422.5	1419.5	1429.6	1437.6	1444.7	1447.7	1453.7	1447.7
42.5°	1552.2	1550.2	1544.2	1537.1	1537.1	1539.2	1552.2	1563.3	1570.3	1571.3	1570.3
45°	1680.9	1677.9	1672.9	1671.9	1674.9	1683.9	1693.0	1707.0	1729.2	1730.2	1729.2
47.5°	1822.7	1824.7	1816.6	1819.6	1824.7	1839.7	1864.9	1888.0	1912.1	1921.2	1910.1
50°	2016.7	2009.6	2009.6	2006.6	2019.7	2041.8	2072.0	2099.1	2133.3	2141.3	2124.3
52.5°	2280.1	2265.0	2268.0	2260.0	2267.0	2287.1	2336.4	2378.6	2421.8	2442.9	2409.8
55°	2596.8	2571.6	2574.6	2582.7	2588.7	2622.9	2685.2	2733.5	2814.9	2821.9	2783.7
57.5°	2856.1	2849.1	2853.1	2872.2	2910.4	2969.7	3048.1	3164.8	3265.3	3289.4	3248.2
60°	2950.6	2955.7	2983.8	3034.1	3106.5	3212.0	3364.8	3546.8	3706.6	3754.9	3692.6
62.5°	2803.9	2824.0	2862.2	2945.6	3060.2	3232.1	3466.4	3740.8	3980.1	4073.6	3962.0
65°	2517.3	2530.4	2592.7	2664.1	2811.9	3008.9	3296.5	3653.3	3947.9	4071.6	3946.9
67.5°	2141.3	2166.5	2220.8	2309.2	2436.9	2637.0	2938.6	3303.5	3599.1	3707.6	3598.1
70°	1719.1	1730.2	1764.3	1833.7	1966.4	2143.4	2401.7	2728.5	3016.0	3084.3	2996.9
72.5°	1192.3	1214.4	1243.6	1306.9	1390.4	1540.2	1753.3	1993.6	2224.8	2366.5	2237.9
75°	513.7	484.6	548.9	612.2	714.8	853.5	1020.4	1217.4	1446.7	1541.2	1414.5
77.5°	153.8	152.8	162.9	181.0	217.2	287.5	403.1	535.8	712.8	774.1	664.5
80°	125.7	129.7	133.7	137.7	141.8	146.8	155.8	182.0	223.2	263.4	214.1
82.5°	106.6	111.6	122.6	128.7	131.7	132.7	132.7	131.7	126.7	124.7	123.7
85°	80.4	88.5	103.5	112.6	112.6	112.6	112.6	109.6	102.5	90.5	100.5
87.5°	27.1	36.2	60.3	64.3	66.4	61.3	64.3	65.3	54.3	41.2	52.3
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°	584.1	584.1	584.1	584.1	584.1	584.1	584.1	584.1
2.5°	587.1	587.1	587.1	588.1	587.1	587.1	587.1	587.1
5°	602.2	601.2	602.2	601.2	602.2	602.2	601.2	602.2
7.5°	625.3	625.3	626.3	626.3	625.3	625.3	625.3	625.3
10°	656.5	654.5	655.5	655.5	655.5	654.5	654.5	653.5
12.5°	688.6	686.6	686.6	686.6	686.6	685.6	686.6	686.6
15°	718.8	716.8	714.8	714.8	715.8	716.8	716.8	715.8
17.5°	748.0	746.0	742.9	742.9	741.9	743.9	746.0	744.9
20°	777.1	776.1	771.1	771.1	771.1	773.1	774.1	777.1
22.5°	806.3	805.3	801.2	800.2	801.2	805.3	808.3	808.3
25°	837.4	839.4	838.4	838.4	840.5	846.5	849.5	853.5
27.5°	881.7	885.7	886.7	890.7	891.7	898.8	903.8	909.8
30°	939.0	946.0	950.0	957.1	962.1	966.1	973.2	978.2
32.5°	1018.4	1035.5	1055.6	1078.7	1088.8	1106.9	1114.9	1116.9
35°	1201.4	1219.5	1236.5	1246.6	1242.6	1247.6	1247.6	1251.6
37.5°	1366.2	1348.1	1333.1	1330.0	1322.0	1319.0	1320.0	1323.0
40°	1442.6	1433.6	1427.6	1430.6	1426.6	1423.5	1425.6	1426.6
42.5°	1566.3	1552.2	1547.2	1546.2	1544.2	1546.2	1551.2	1549.2
45°	1711.1	1693.0	1685.9	1684.9	1681.9	1680.9	1682.9	1686.9
47.5°	1885.0	1862.9	1840.7	1833.7	1833.7	1827.7	1831.7	1825.7
50°	2098.1	2061.9	2038.8	2025.7	2017.7	2008.6	2016.7	2003.6
52.5°	2378.6	2327.3	2302.2	2285.1	2262.0	2263.0	2265.0	2260.0
55°	2732.5	2676.2	2626.9	2593.7	2579.7	2571.6	2569.6	2585.7
57.5°	3139.6	3040.1	2961.7	2903.4	2881.3	2851.1	2837.0	2837.0
60°	3526.7	3345.7	3189.9	3092.4	3020.0	2968.7	2934.5	2924.5
62.5°	3715.7	3441.2	3213.0	3052.2	2937.6	2864.2	2814.9	2801.8
65°	3634.2	3285.4	3017.0	2836.0	2703.3	2608.8	2551.5	2535.4
67.5°	3306.5	2941.6	2659.1	2477.1	2334.4	2231.8	2188.6	2170.5
70°	2745.5	2410.8	2165.5	1987.5	1838.7	1752.3	1693.0	1668.8
72.5°	1973.5	1719.1	1493.9	1341.1	1207.4	1162.2	1081.7	1073.7
75°	1166.2	945.0	759.0	642.4	522.8	457.4	420.2	380.0
77.5°	474.5	338.8	254.3	192.0	164.9	149.8	142.8	140.7
80°	161.9	144.8	136.7	133.7	129.7	127.7	122.6	118.6
82.5°	127.7	126.7	122.6	121.6	117.6	111.6	101.5	95.5
85°	106.6	104.6	99.5	98.5	95.5	87.5	76.4	69.4
87.5°	60.3	55.3	50.3	51.3	48.3	42.2	31.2	22.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)