

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: P140453

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

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P140453  
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-F04-LED-E1-5WQ-8030  
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE  
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE WIDE  
Light Source: (28) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8325.6 lumens  
Efficiency: N/A  
Efficacy: 81.5 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G2

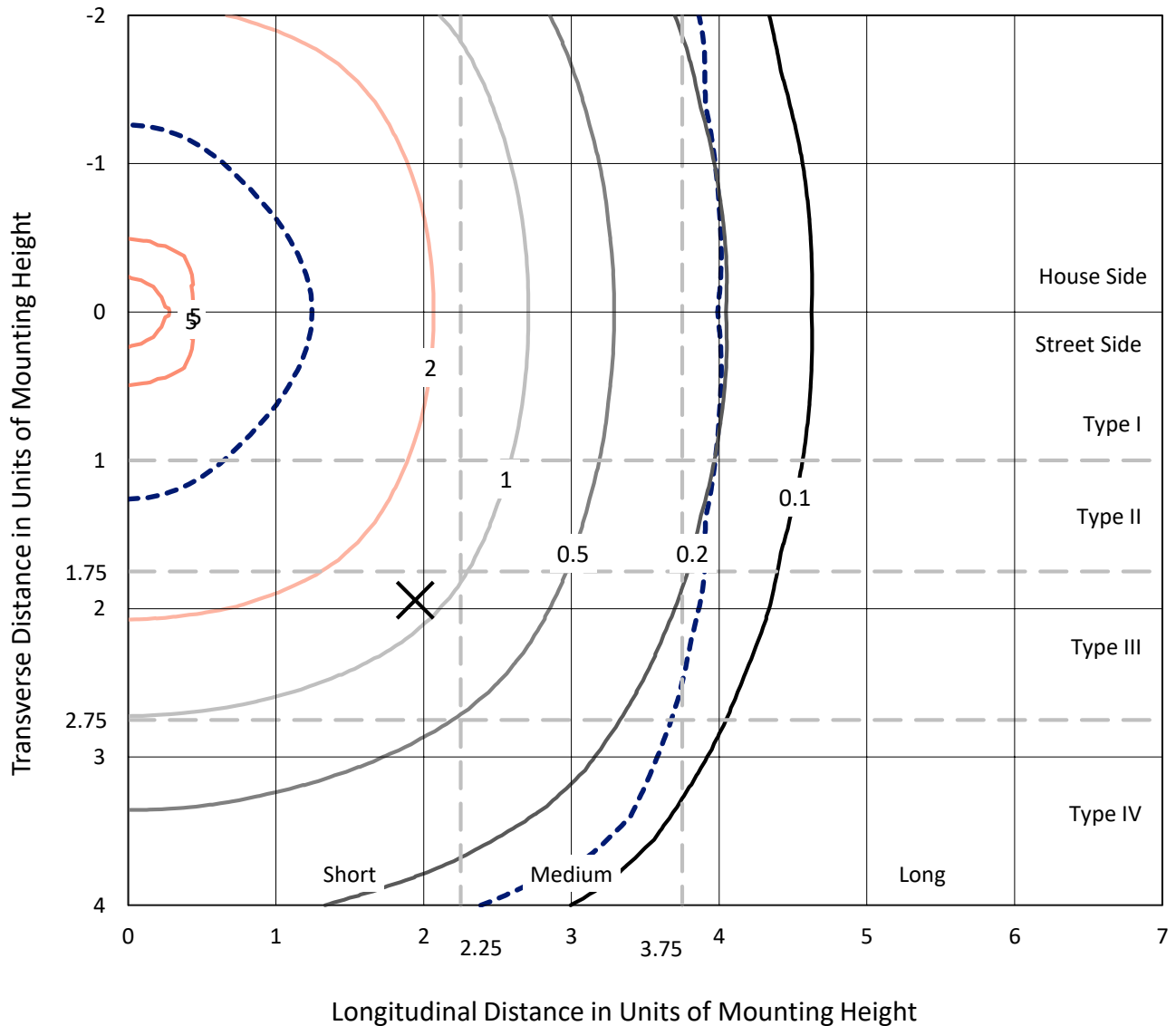
Input Watts (W): 102.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

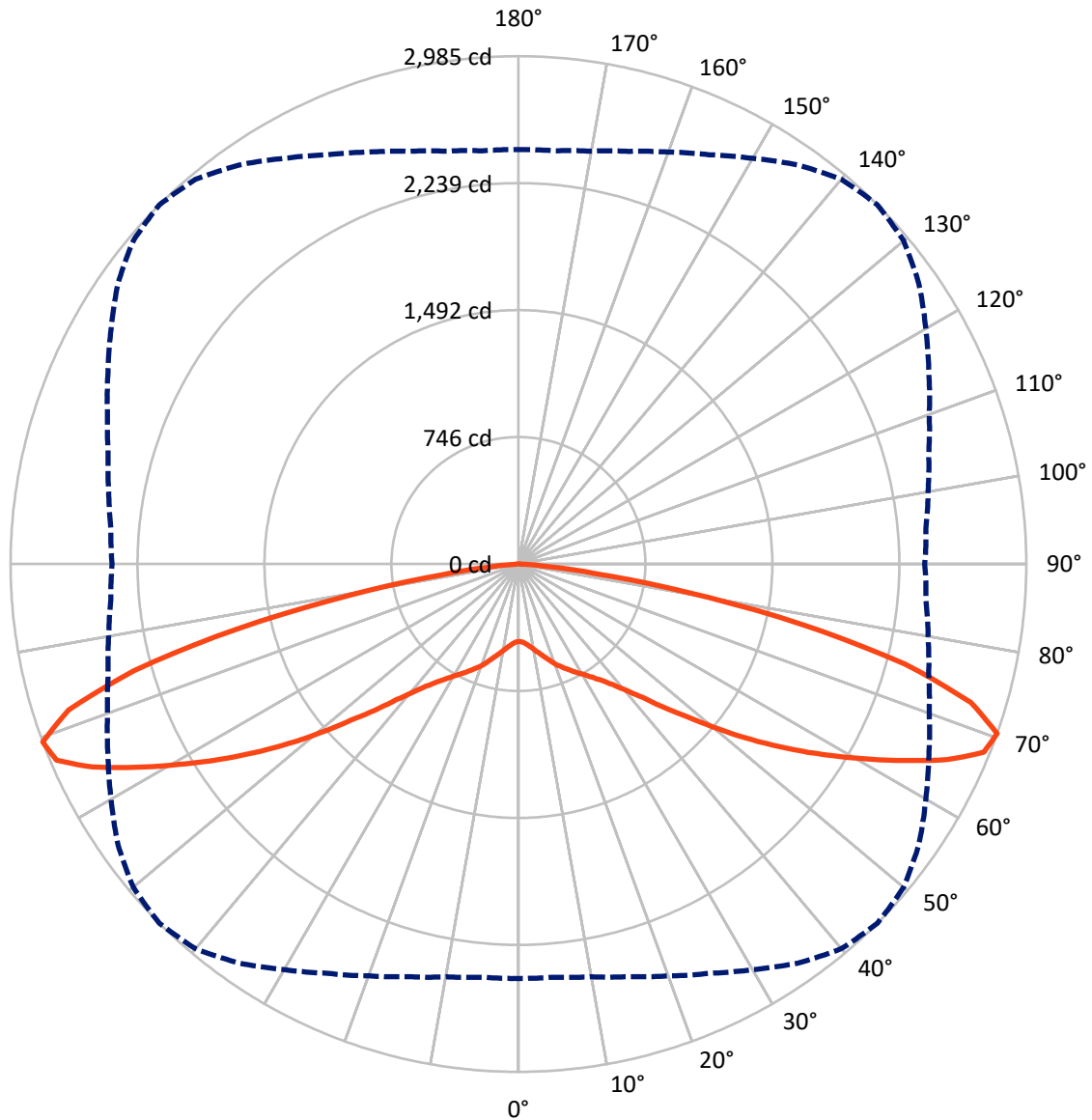
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.2 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
<b>House Side</b>	Lumens	4162.8	0.0	4162.8
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	4162.8	0.0	4162.8
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	8325.6	0.0	8325.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	46.2	0.6
10°-20°	161.2	1.9
20°-30°	316.8	3.8
30°-40°	524.1	6.3
40°-50°	917.5	11.0
50°-60°	1636.5	19.7
60°-70°	2526.5	30.3
70°-80°	1999.9	24.0
80°-90°	196.8	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°	8325.6	100.0
0°-180°	8325.6	100.0



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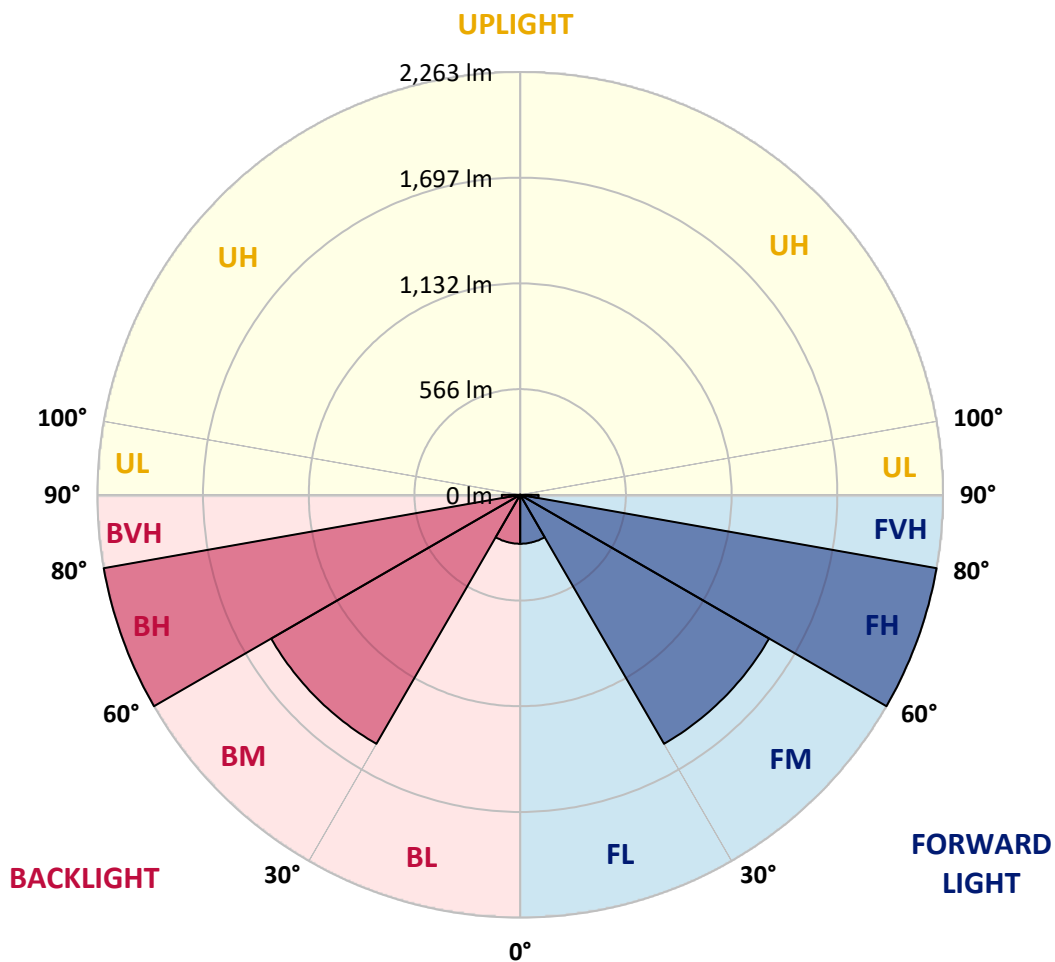
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	262.1	3.1			
FM	(30°-60°)	1539.1	18.5			
FH	(60°-80°)	2263.2	27.2			G2/5000
FVH	(80°-90°)	98.4	1.2			G1/100
BL	(0°-30°)	262.1	3.1	B1/500		
BM	(30°-60°)	1539.1	18.5	B2/2500		
BH	(60°-80°)	2263.2	27.2	B3/2500		G2/5000
BVH	(80°-90°)	98.4	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°	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2
2.5°	460.8	460.8	459.8	459.8	459.8	459.8	458.9	458.9	459.8	458.9	458.9
5°	471.9	472.9	472.9	471.9	471.9	471.9	471.9	471.9	472.9	471.9	471.9
7.5°	488.6	489.6	489.6	488.6	488.6	488.6	488.6	488.6	489.6	489.6	487.7
10°	509.1	510.0	510.0	509.1	509.1	510.0	510.0	510.0	510.9	510.9	510.0
12.5°	533.2	534.2	535.1	534.2	535.1	535.1	536.0	537.0	537.0	537.0	535.1
15°	561.1	563.9	562.0	562.0	563.0	563.9	563.9	566.7	565.7	564.8	563.9
17.5°	593.6	592.7	592.7	593.6	594.5	593.6	594.5	597.3	596.4	595.5	594.5
20°	624.3	624.3	624.3	623.3	625.2	625.2	626.1	627.1	627.1	628.9	626.1
22.5°	654.0	654.0	653.1	653.1	654.9	654.9	656.8	658.6	658.6	658.6	656.8
25°	681.9	681.9	682.8	681.9	682.8	683.7	685.6	687.4	688.4	688.4	688.4
27.5°	707.0	709.7	708.8	709.7	711.6	713.5	715.3	718.1	720.0	720.9	718.1
30°	738.5	738.5	737.6	738.5	740.4	743.2	746.9	751.5	751.5	752.5	752.5
32.5°	772.0	772.9	771.1	772.9	775.7	779.4	783.1	786.8	788.7	792.4	791.5
35°	815.6	812.9	813.8	816.6	818.4	822.1	826.8	833.3	837.0	838.9	837.0
37.5°	865.8	864.9	866.7	866.7	873.2	877.0	885.3	890.9	893.7	898.3	896.5
40°	929.0	932.7	933.6	936.4	940.1	947.6	956.9	966.1	971.7	975.4	976.4
42.5°	1014.4	1016.3	1012.6	1022.8	1033.0	1037.7	1048.8	1061.8	1070.2	1073.0	1073.9
45°	1119.4	1119.4	1125.0	1131.5	1144.5	1153.8	1165.9	1187.2	1194.7	1204.9	1204.9
47.5°	1244.8	1248.6	1248.6	1263.4	1273.6	1292.2	1315.4	1333.1	1348.9	1344.2	1360.0
50°	1389.8	1392.5	1402.8	1411.1	1428.8	1450.1	1471.5	1497.5	1520.7	1523.5	1526.3
52.5°	1541.2	1544.9	1553.3	1572.8	1594.1	1618.3	1657.3	1679.6	1701.9	1714.0	1712.1
55°	1714.9	1713.0	1727.0	1741.8	1773.4	1805.9	1838.5	1870.0	1893.3	1910.0	1909.1
57.5°	1897.0	1903.5	1919.3	1937.9	1964.8	1993.6	2032.6	2064.2	2102.3	2112.5	2097.6
60°	2108.8	2102.3	2118.1	2146.9	2171.0	2208.2	2242.6	2283.4	2310.4	2322.5	2317.8
62.5°	2325.2	2319.7	2331.7	2368.9	2397.7	2424.6	2472.0	2516.6	2538.9	2543.5	2535.2
65°	2484.1	2486.0	2505.5	2538.0	2583.5	2624.4	2677.3	2731.2	2766.5	2772.1	2753.5
67.5°	2521.3	2525.0	2551.9	2593.7	2650.4	2718.2	2797.2	2877.1	2937.4	2950.4	2923.5
70°	2435.8	2437.6	2463.7	2511.0	2576.1	2654.1	2752.6	2863.1	2951.4	2984.8	2955.1
72.5°	2260.2	2267.6	2289.0	2329.0	2380.0	2457.2	2551.9	2650.4	2737.7	2780.4	2780.4
75°	1943.4	1960.1	1970.4	1983.4	2028.0	2090.2	2167.3	2245.3	2322.5	2346.6	2278.8
77.5°	1387.0	1359.1	1365.6	1438.1	1427.8	1498.4	1583.9	1639.7	1708.4	1698.2	1600.6
80°	636.4	620.6	656.8	705.1	766.4	813.8	905.8	915.0	994.0	998.7	928.1
82.5°	127.3	133.8	159.8	196.9	245.3	298.2	346.5	387.4	441.3	451.5	419.0
85°	39.9	43.7	54.8	60.4	63.2	72.5	82.7	111.5	128.2	132.8	124.5
87.5°	8.4	13.0	21.4	24.2	25.1	24.2	24.2	23.2	18.6	14.9	17.7
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°	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2
2.5°	458.0	458.0	458.9	458.9	458.9	458.0	457.1	458.0
5°	471.0	471.0	471.0	471.0	469.1	469.1	468.2	468.2
7.5°	487.7	486.8	486.8	485.9	484.9	484.9	484.0	484.9
10°	510.0	508.2	507.2	506.3	505.4	505.4	504.4	503.5
12.5°	534.2	533.2	532.3	530.4	529.5	527.7	527.7	527.7
15°	562.0	561.1	560.2	557.4	557.4	554.6	555.5	555.5
17.5°	592.7	590.8	588.0	587.1	586.2	583.4	583.4	583.4
20°	624.3	620.6	618.7	616.8	616.8	614.1	613.1	613.1
22.5°	654.9	651.2	647.5	645.6	643.8	642.9	641.0	640.1
25°	685.6	681.9	678.2	675.4	671.7	669.8	667.9	667.9
27.5°	716.2	712.5	707.0	703.2	699.5	695.8	693.9	694.9
30°	747.8	744.1	738.5	733.9	729.2	725.5	723.7	722.7
32.5°	787.8	783.1	776.6	772.0	763.6	759.9	758.0	759.0
35°	834.2	827.7	823.1	815.6	809.1	804.5	801.7	801.7
37.5°	893.7	888.1	883.5	876.0	866.7	861.2	857.4	860.2
40°	970.8	966.1	956.9	945.7	938.3	933.6	929.9	930.8
42.5°	1069.3	1060.0	1051.6	1045.1	1034.0	1027.5	1017.2	1020.9
45°	1193.7	1183.5	1175.2	1164.9	1154.7	1141.7	1138.0	1130.6
47.5°	1344.2	1336.8	1318.2	1308.9	1295.9	1277.3	1268.1	1260.6
50°	1510.5	1496.6	1483.6	1460.4	1445.5	1424.1	1415.8	1413.0
52.5°	1698.2	1675.0	1653.6	1632.2	1602.5	1582.1	1565.3	1569.0
55°	1884.0	1857.0	1826.4	1803.2	1779.9	1754.8	1737.2	1727.0
57.5°	2080.0	2050.3	2017.7	1984.3	1964.8	1935.1	1923.9	1918.3
60°	2281.6	2254.6	2222.1	2191.5	2164.5	2130.2	2111.6	2104.1
62.5°	2504.5	2467.4	2428.4	2390.3	2360.5	2335.5	2315.9	2302.9
65°	2709.8	2658.7	2618.8	2570.5	2538.0	2501.7	2477.6	2472.9
67.5°	2863.1	2784.2	2714.5	2652.2	2602.1	2557.5	2526.8	2514.8
70°	2873.3	2764.6	2661.5	2569.6	2496.2	2445.1	2404.2	2388.4
72.5°	2674.5	2539.8	2400.5	2310.4	2232.3	2161.7	2132.9	2126.4
75°	2175.7	2063.3	1947.1	1845.0	1791.1	1755.8	1731.6	1696.3
77.5°	1511.5	1408.3	1346.1	1231.8	1211.4	1182.6	1158.4	1135.2
80°	846.3	756.2	686.5	615.0	571.3	547.2	522.1	508.2
82.5°	380.0	312.1	248.0	192.3	158.9	125.4	93.8	99.4
85°	94.8	79.9	61.3	51.1	46.4	42.7	34.4	30.7
87.5°	17.7	16.7	14.9	14.9	15.8	13.0	7.4	6.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)