

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: P140450

Luminaire Tested: **ECM-E04-LED-E1-5WQ**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P140450  
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-E04-LED-E1-5WQ  
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE  
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE WIDE  
Light Source: (84) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11949.4 lumens  
Efficiency: N/A  
Efficacy: 122.9 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B4 - U0 - G2

Input Watts (W): 97.2  
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

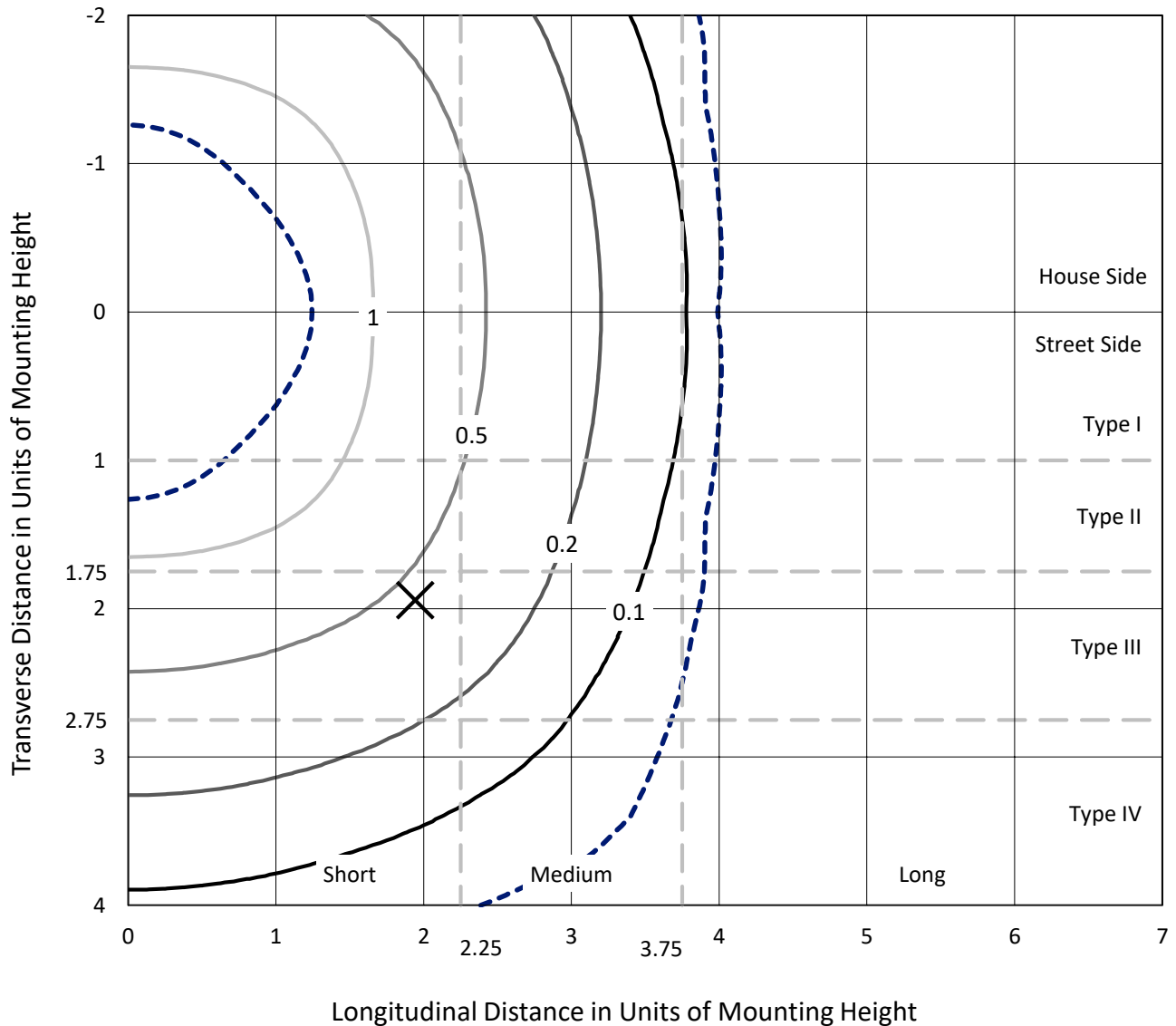


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### Iso-Footcandle Lines of Horizontal Illumination

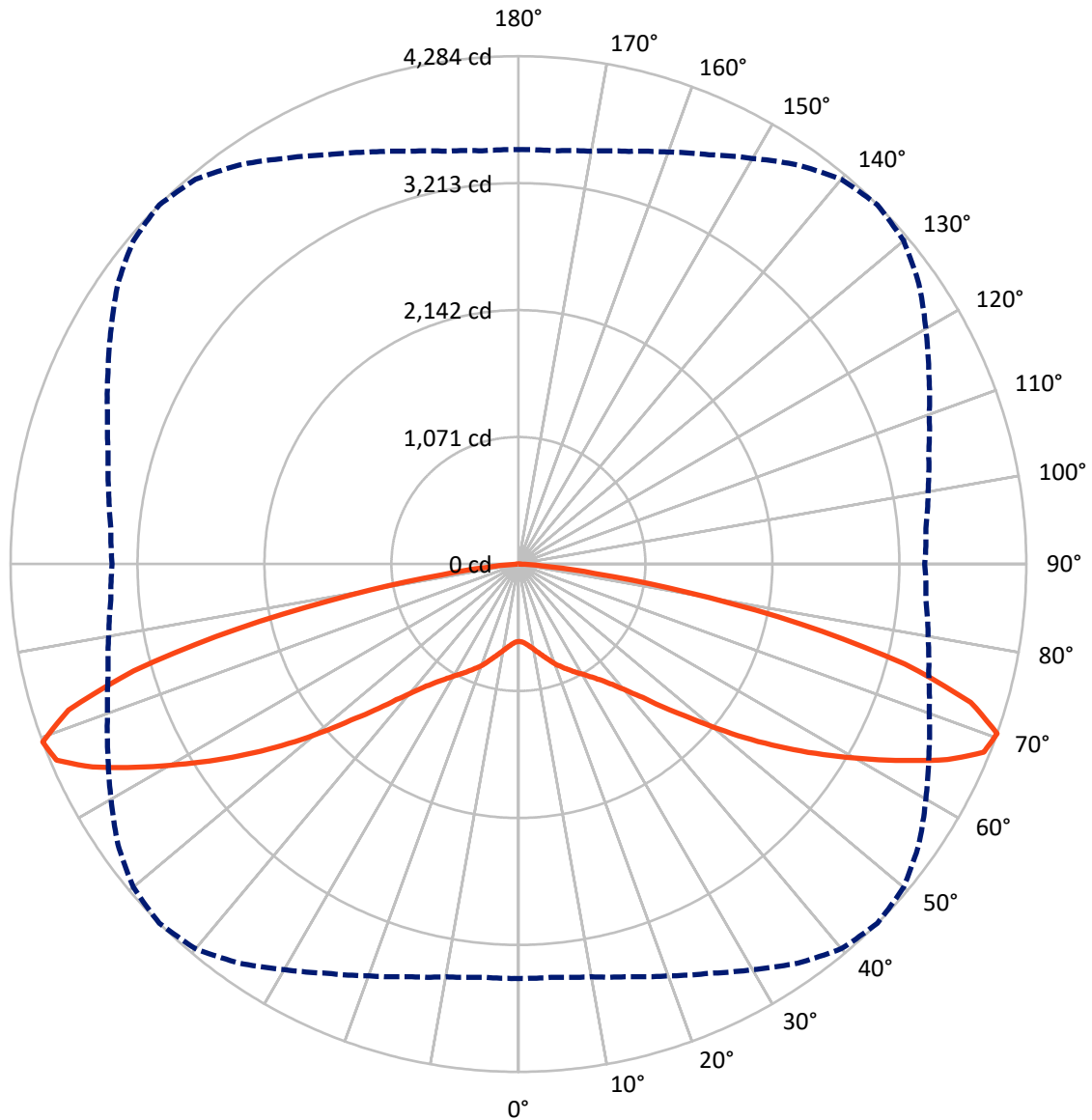
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 1.9 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	5974.7	0.0	5974.7
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	5974.7	0.0	5974.7
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	11949.4	0.0	11949.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.2	0.6
10°-20°	231.4	1.9
20°-30°	454.7	3.8
30°-40°	752.3	6.3
40°-50°	1316.8	11.0
50°-60°	2348.8	19.7
60°-70°	3626.2	30.3
70°-80°	2870.4	24.0
80°-90°	282.5	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°	11949.4	100.0
0°-180°	11949.4	100.0



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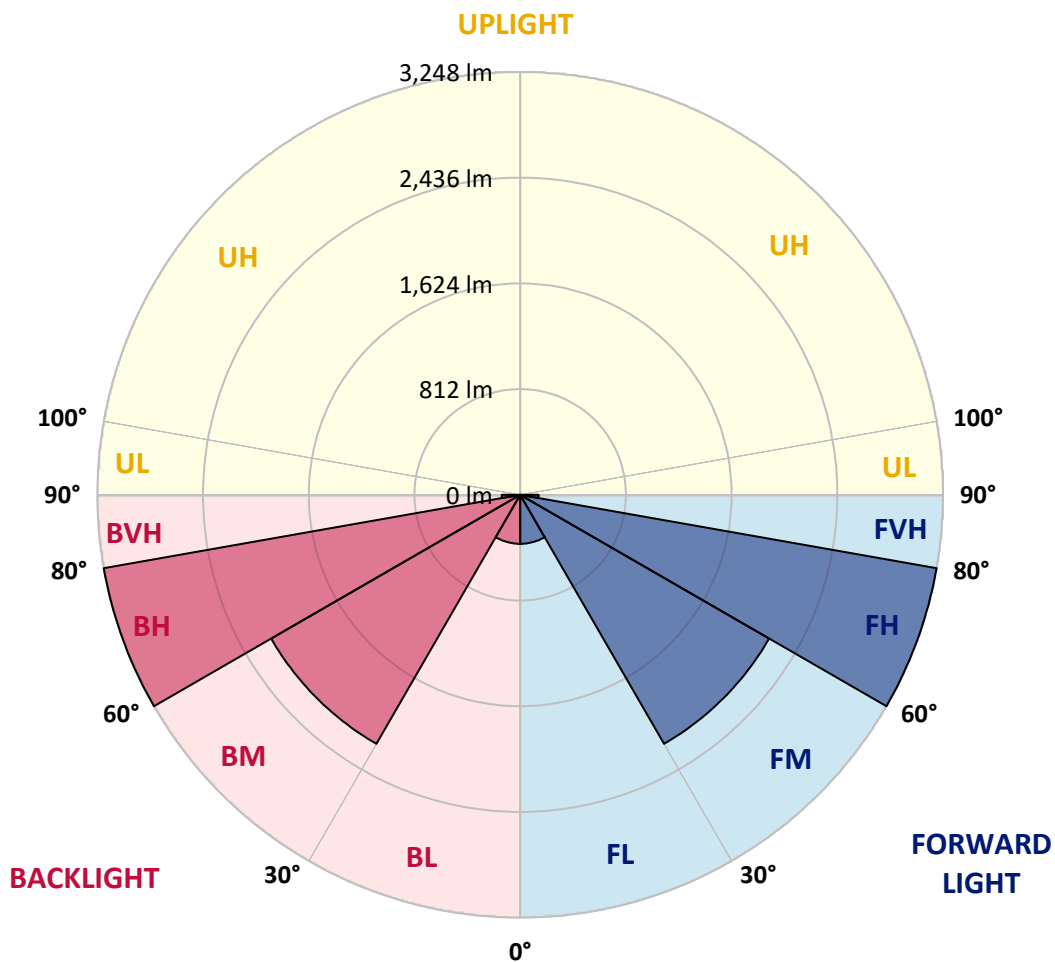
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	376.1	3.1			
FM (30°-60°)	2209.0	18.5			
FH (60°-80°)	3248.3	27.2			G2/5000
FVH (80°-90°)	141.2	1.2			G2/225
BL (0°-30°)	376.1	3.1	B1/500		
BM (30°-60°)	2209.0	18.5	B2/2500		
BH (60°-80°)	3248.3	27.2	B4/5000		G2/5000
BVH (80°-90°)	141.2	1.2			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G2**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	653.3	653.3	653.3	653.3	653.3	653.3	653.3	653.3	653.3	653.3	653.3
2.5°	661.3	661.3	660.0	660.0	660.0	660.0	658.7	658.7	660.0	658.7	658.7
5°	677.3	678.7	678.7	677.3	677.3	677.3	677.3	677.3	678.7	677.3	677.3
7.5°	701.3	702.7	702.7	701.3	701.3	701.3	701.3	701.3	702.7	702.7	700.0
10°	730.7	732.0	732.0	730.7	730.7	732.0	732.0	732.0	733.3	733.3	732.0
12.5°	765.3	766.7	768.0	766.7	768.0	768.0	769.3	770.7	770.7	770.7	768.0
15°	805.3	809.3	806.7	806.7	808.0	809.3	809.3	813.3	812.0	810.7	809.3
17.5°	852.0	850.7	850.7	852.0	853.3	852.0	853.3	857.3	856.0	854.7	853.3
20°	896.0	896.0	896.0	894.7	897.3	897.3	898.7	900.0	900.0	902.7	898.7
22.5°	938.7	938.7	937.3	937.3	940.0	940.0	942.7	945.3	945.3	945.3	942.7
25°	978.7	978.7	980.0	978.7	980.0	981.3	984.0	986.7	988.0	988.0	988.0
27.5°	1014.7	1018.7	1017.3	1018.7	1021.3	1024.0	1026.7	1030.7	1033.3	1034.7	1030.7
30°	1060.0	1060.0	1058.7	1060.0	1062.7	1066.7	1072.0	1078.7	1078.7	1080.0	1080.0
32.5°	1108.0	1109.3	1106.7	1109.3	1113.3	1118.7	1124.0	1129.3	1132.0	1137.3	1136.0
35°	1170.7	1166.7	1168.0	1172.0	1174.7	1180.0	1186.7	1196.0	1201.3	1204.0	1201.3
37.5°	1242.7	1241.3	1244.0	1244.0	1253.3	1258.7	1270.7	1278.7	1282.7	1289.3	1286.7
40°	1333.3	1338.7	1340.0	1344.0	1349.3	1360.0	1373.3	1386.7	1394.7	1400.0	1401.3
42.5°	1456.0	1458.7	1453.3	1468.0	1482.7	1489.3	1505.3	1524.0	1536.0	1540.0	1541.3
45°	1606.7	1606.7	1614.7	1624.0	1642.7	1656.0	1673.3	1704.0	1714.7	1729.3	1729.3
47.5°	1786.7	1792.0	1792.0	1813.3	1828.0	1854.7	1888.0	1913.3	1936.0	1929.3	1952.0
50°	1994.7	1998.7	2013.3	2025.3	2050.7	2081.3	2112.0	2149.3	2182.7	2186.7	2190.7
52.5°	2212.0	2217.3	2229.3	2257.3	2288.0	2322.7	2378.7	2410.7	2442.7	2460.0	2457.3
55°	2461.3	2458.7	2478.7	2500.0	2545.3	2592.0	2638.7	2684.0	2717.3	2741.3	2740.0
57.5°	2722.7	2732.0	2754.7	2781.3	2820.0	2861.3	2917.3	2962.7	3017.3	3032.0	3010.7
60°	3026.7	3017.3	3040.0	3081.3	3116.0	3169.3	3218.7	3277.3	3316.0	3333.3	3326.7
62.5°	3337.3	3329.3	3346.7	3400.0	3441.3	3480.0	3548.0	3612.0	3644.0	3650.7	3638.7
65°	3565.3	3568.0	3596.0	3642.7	3708.0	3766.7	3842.7	3920.0	3970.7	3978.7	3952.0
67.5°	3618.7	3624.0	3662.7	3722.7	3804.0	3901.3	4014.7	4129.3	4216.0	4234.7	4196.0
70°	3496.0	3498.7	3536.0	3604.0	3697.3	3809.3	3950.7	4109.3	4236.0	4284.0	4241.3
72.5°	3244.0	3254.7	3285.3	3342.7	3416.0	3526.7	3662.7	3804.0	3929.3	3990.7	3990.7
75°	2789.3	2813.3	2828.0	2846.7	2910.7	3000.0	3110.7	3222.7	3333.3	3368.0	3270.7
77.5°	1990.7	1950.7	1960.0	2064.0	2049.3	2150.7	2273.3	2353.3	2452.0	2437.3	2297.3
80°	913.3	890.7	942.7	1012.0	1100.0	1168.0	1300.0	1313.3	1426.7	1433.3	1332.0
82.5°	182.7	192.0	229.3	282.7	352.0	428.0	497.3	556.0	633.3	648.0	601.3
85°	57.3	62.7	78.7	86.7	90.7	104.0	118.7	160.0	184.0	190.7	178.7
87.5°	12.0	18.7	30.7	34.7	36.0	34.7	34.7	33.3	26.7	21.3	25.3
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°	653.3	653.3	653.3	653.3	653.3	653.3	653.3	653.3
2.5°	657.3	657.3	658.7	658.7	658.7	657.3	656.0	657.3
5°	676.0	676.0	676.0	676.0	673.3	673.3	672.0	672.0
7.5°	700.0	698.7	698.7	697.3	696.0	696.0	694.7	696.0
10°	732.0	729.3	728.0	726.7	725.3	725.3	724.0	722.7
12.5°	766.7	765.3	764.0	761.3	760.0	757.3	757.3	757.3
15°	806.7	805.3	804.0	800.0	800.0	796.0	797.3	797.3
17.5°	850.7	848.0	844.0	842.7	841.3	837.3	837.3	837.3
20°	896.0	890.7	888.0	885.3	885.3	881.3	880.0	880.0
22.5°	940.0	934.7	929.3	926.7	924.0	922.7	920.0	918.7
25°	984.0	978.7	973.3	969.3	964.0	961.3	958.7	958.7
27.5°	1028.0	1022.7	1014.7	1009.3	1004.0	998.7	996.0	997.3
30°	1073.3	1068.0	1060.0	1053.3	1046.7	1041.3	1038.7	1037.3
32.5°	1130.7	1124.0	1114.7	1108.0	1096.0	1090.7	1088.0	1089.3
35°	1197.3	1188.0	1181.3	1170.7	1161.3	1154.7	1150.7	1150.7
37.5°	1282.7	1274.7	1268.0	1257.3	1244.0	1236.0	1230.7	1234.7
40°	1393.3	1386.7	1373.3	1357.3	1346.7	1340.0	1334.7	1336.0
42.5°	1534.7	1521.3	1509.3	1500.0	1484.0	1474.7	1460.0	1465.3
45°	1713.3	1698.7	1686.7	1672.0	1657.3	1638.7	1633.3	1622.7
47.5°	1929.3	1918.7	1892.0	1878.7	1860.0	1833.3	1820.0	1809.3
50°	2168.0	2148.0	2129.3	2096.0	2074.7	2044.0	2032.0	2028.0
52.5°	2437.3	2404.0	2373.3	2342.7	2300.0	2270.7	2246.7	2252.0
55°	2704.0	2665.3	2621.3	2588.0	2554.7	2518.7	2493.3	2478.7
57.5°	2985.3	2942.7	2896.0	2848.0	2820.0	2777.3	2761.3	2753.3
60°	3274.7	3236.0	3189.3	3145.3	3106.7	3057.3	3030.7	3020.0
62.5°	3594.7	3541.3	3485.3	3430.7	3388.0	3352.0	3324.0	3305.3
65°	3889.3	3816.0	3758.7	3689.3	3642.7	3590.7	3556.0	3549.3
67.5°	4109.3	3996.0	3896.0	3806.7	3734.7	3670.7	3626.7	3609.3
70°	4124.0	3968.0	3820.0	3688.0	3582.7	3509.3	3450.7	3428.0
72.5°	3838.7	3645.3	3445.3	3316.0	3204.0	3102.7	3061.3	3052.0
75°	3122.7	2961.3	2794.7	2648.0	2570.7	2520.0	2485.3	2434.7
77.5°	2169.3	2021.3	1932.0	1768.0	1738.7	1697.3	1662.7	1629.3
80°	1214.7	1085.3	985.3	882.7	820.0	785.3	749.3	729.3
82.5°	545.3	448.0	356.0	276.0	228.0	180.0	134.7	142.7
85°	136.0	114.7	88.0	73.3	66.7	61.3	49.3	44.0
87.5°	25.3	24.0	21.3	21.3	22.7	18.7	10.7	9.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)