

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: P140456

Luminaire Tested: **ECM-F04-LED-E1-5WQ-7050**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P140456
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-7050
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE WIDE
Light Source: (28) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10122 lumens
Efficiency: N/A
Efficacy: 99.0 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

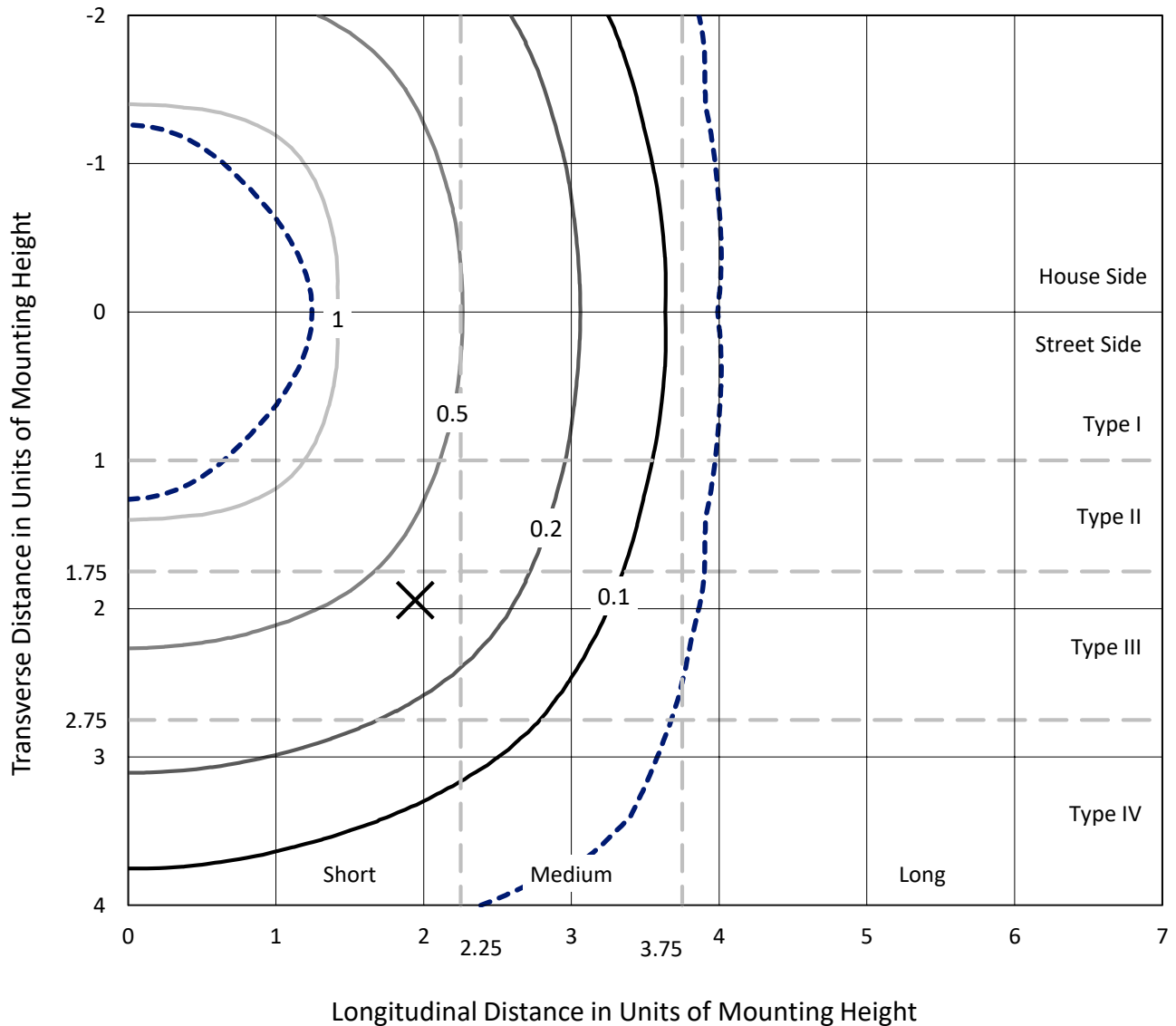
Input Watts (W): 102.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

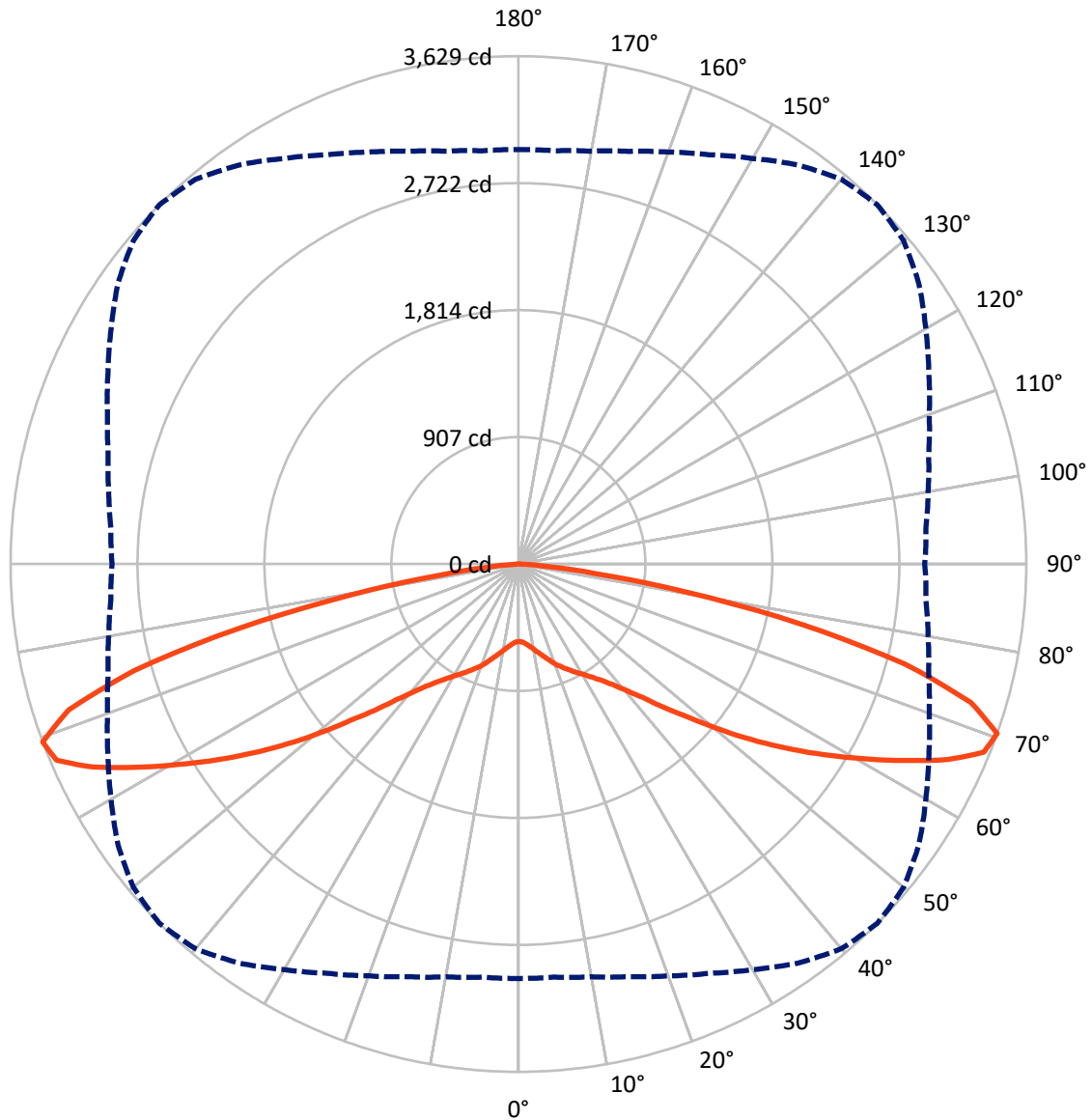
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 1.6 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	5061.0	0.0	5061.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	5061.0	0.0	5061.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	10122.0	0.0	10122.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.1	0.6
10°-20°	196.0	1.9
20°-30°	385.1	3.8
30°-40°	637.2	6.3
40°-50°	1115.5	11.0
50°-60°	1989.6	19.7
60°-70°	3071.7	30.3
70°-80°	2431.5	24.0
80°-90°	239.3	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°	10122.0	100.0
0°-180°	10122.0	100.0



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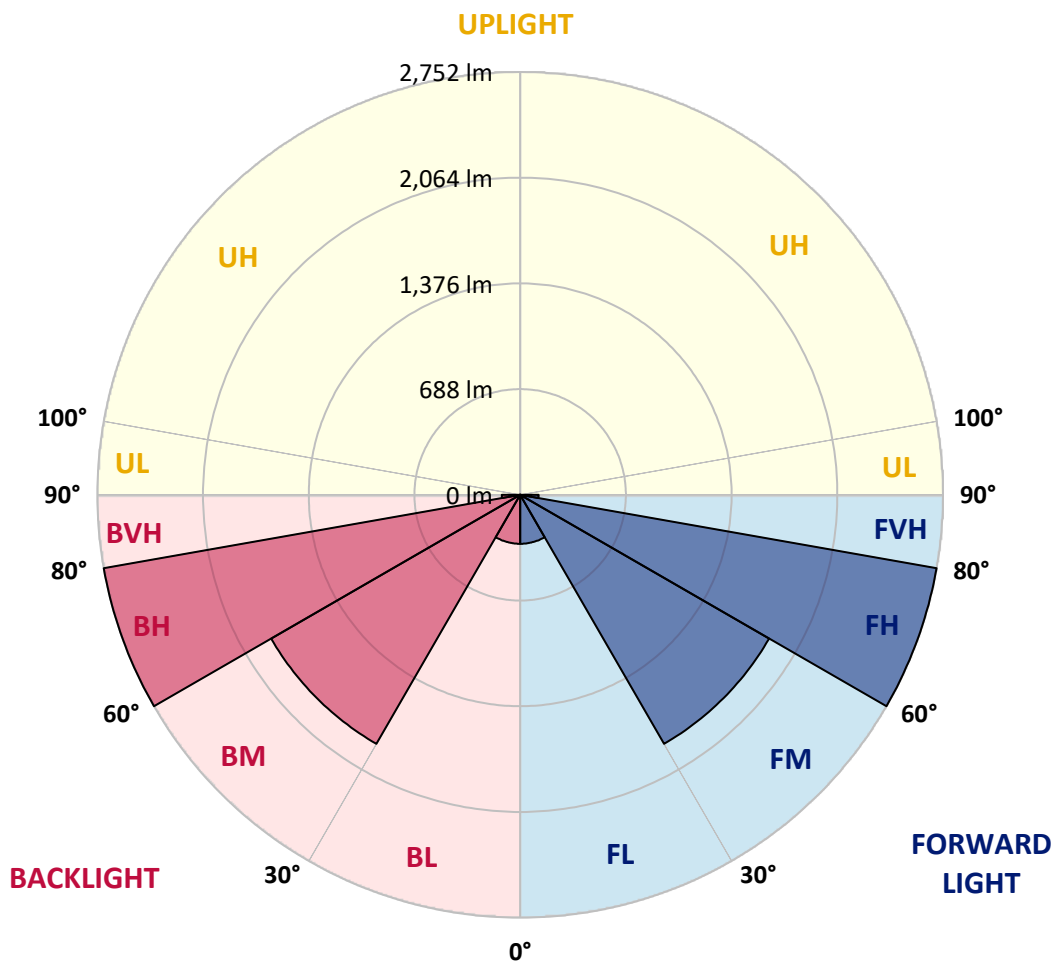
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	318.6	3.1			
FM	(30°-60°)	1871.2	18.5			
FH	(60°-80°)	2751.6	27.2			G2/5000
FVH	(80°-90°)	119.6	1.2			G2/225
BL	(0°-30°)	318.6	3.1	B1/500		
BM	(30°-60°)	1871.2	18.5	B2/2500		
BH	(60°-80°)	2751.6	27.2	B4/5000		G2/5000
BVH	(80°-90°)	119.6	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°	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4
2.5°	560.2	560.2	559.1	559.1	559.1	559.1	557.9	557.9	559.1	557.9	557.9
5°	573.8	574.9	574.9	573.8	573.8	573.8	573.8	573.8	574.9	573.8	573.8
7.5°	594.1	595.2	595.2	594.1	594.1	594.1	594.1	594.1	595.2	595.2	593.0
10°	618.9	620.1	620.1	618.9	618.9	620.1	620.1	620.1	621.2	621.2	620.1
12.5°	648.3	649.4	650.6	649.4	650.6	650.6	651.7	652.8	652.8	652.8	650.6
15°	682.2	685.6	683.3	683.3	684.4	685.6	685.6	689.0	687.8	686.7	685.6
17.5°	721.7	720.6	720.6	721.7	722.8	721.7	722.8	726.2	725.1	724.0	722.8
20°	759.0	759.0	759.0	757.9	760.1	760.1	761.2	762.4	762.4	764.6	761.2
22.5°	795.1	795.1	794.0	794.0	796.3	796.3	798.5	800.8	800.8	800.8	798.5
25°	829.0	829.0	830.1	829.0	830.1	831.3	833.5	835.8	836.9	836.9	836.9
27.5°	859.5	862.9	861.8	862.9	865.1	867.4	869.7	873.1	875.3	876.4	873.1
30°	897.9	897.9	896.8	897.9	900.2	903.5	908.1	913.7	913.7	914.8	914.8
32.5°	938.6	939.7	937.4	939.7	943.1	947.6	952.1	956.6	958.9	963.4	962.3
35°	991.6	988.3	989.4	992.8	995.0	999.5	1005.2	1013.1	1017.6	1019.9	1017.6
37.5°	1052.6	1051.5	1053.8	1053.8	1061.7	1066.2	1076.4	1083.1	1086.5	1092.2	1089.9
40°	1129.4	1134.0	1135.1	1138.5	1143.0	1152.0	1163.3	1174.6	1181.4	1185.9	1187.0
42.5°	1233.3	1235.6	1231.1	1243.5	1255.9	1261.6	1275.1	1290.9	1301.1	1304.5	1305.6
45°	1361.0	1361.0	1367.7	1375.7	1391.5	1402.8	1417.4	1443.4	1452.5	1464.9	1464.9
47.5°	1513.4	1518.0	1518.0	1536.0	1548.5	1571.0	1599.3	1620.7	1639.9	1634.3	1653.5
50°	1689.6	1693.0	1705.4	1715.6	1737.1	1763.0	1789.0	1820.6	1848.9	1852.3	1855.7
52.5°	1873.7	1878.2	1888.4	1912.1	1938.1	1967.5	2014.9	2042.0	2069.1	2083.8	2081.5
55°	2084.9	2082.7	2099.6	2117.7	2156.1	2195.6	2235.2	2273.6	2301.8	2322.1	2321.0
57.5°	2306.3	2314.2	2333.4	2356.0	2388.8	2423.8	2471.2	2509.6	2555.9	2568.3	2550.3
60°	2563.8	2555.9	2575.1	2610.1	2639.5	2684.7	2726.5	2776.1	2808.9	2823.6	2817.9
62.5°	2827.0	2820.2	2834.9	2880.1	2915.1	2947.8	3005.4	3059.6	3086.7	3092.4	3082.2
65°	3020.1	3022.4	3046.1	3085.6	3141.0	3190.7	3255.0	3320.5	3363.5	3370.2	3347.6
67.5°	3065.3	3069.8	3102.6	3153.4	3222.3	3304.7	3400.7	3497.9	3571.3	3587.1	3554.3
70°	2961.4	2963.6	2995.3	3052.9	3131.9	3226.8	3346.5	3480.9	3588.2	3628.9	3592.7
72.5°	2747.9	2756.9	2782.9	2831.5	2893.6	2987.4	3102.6	3222.3	3328.4	3380.4	3380.4
75°	2362.8	2383.1	2395.5	2411.3	2465.6	2541.2	2635.0	2729.8	2823.6	2853.0	2770.5
77.5°	1686.2	1652.4	1660.3	1748.4	1735.9	1821.8	1925.7	1993.5	2077.0	2064.6	1946.0
80°	773.7	754.5	798.5	857.2	931.8	989.4	1101.2	1112.5	1208.5	1214.1	1128.3
82.5°	154.7	162.6	194.3	239.4	298.2	362.5	421.3	471.0	536.5	548.9	509.4
85°	48.6	53.1	66.6	73.4	76.8	88.1	100.5	135.5	155.9	161.5	151.3
87.5°	10.2	15.8	26.0	29.4	30.5	29.4	29.4	28.2	22.6	18.1	21.5
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°	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4
2.5°	556.8	556.8	557.9	557.9	557.9	556.8	555.7	556.8
5°	572.6	572.6	572.6	572.6	570.4	570.4	569.2	569.2
7.5°	593.0	591.8	591.8	590.7	589.6	589.6	588.4	589.6
10°	620.1	617.8	616.7	615.5	614.4	614.4	613.3	612.2
12.5°	649.4	648.3	647.2	644.9	643.8	641.5	641.5	641.5
15°	683.3	682.2	681.0	677.7	677.7	674.3	675.4	675.4
17.5°	720.6	718.3	714.9	713.8	712.7	709.3	709.3	709.3
20°	759.0	754.5	752.2	749.9	749.9	746.6	745.4	745.4
22.5°	796.3	791.7	787.2	785.0	782.7	781.6	779.3	778.2
25°	833.5	829.0	824.5	821.1	816.6	814.3	812.1	812.1
27.5°	870.8	866.3	859.5	855.0	850.5	845.9	843.7	844.8
30°	909.2	904.7	897.9	892.3	886.6	882.1	879.8	878.7
32.5°	957.8	952.1	944.2	938.6	928.4	923.9	921.6	922.7
35°	1014.2	1006.3	1000.7	991.6	983.7	978.1	974.7	974.7
37.5°	1086.5	1079.7	1074.1	1065.1	1053.8	1047.0	1042.5	1045.9
40°	1180.3	1174.6	1163.3	1149.8	1140.7	1135.1	1130.6	1131.7
42.5°	1300.0	1288.7	1278.5	1270.6	1257.1	1249.2	1236.7	1241.2
45°	1451.3	1438.9	1428.7	1416.3	1403.9	1388.1	1383.6	1374.5
47.5°	1634.3	1625.3	1602.7	1591.4	1575.6	1553.0	1541.7	1532.6
50°	1836.5	1819.5	1803.7	1775.5	1757.4	1731.4	1721.3	1717.9
52.5°	2064.6	2036.4	2010.4	1984.4	1948.3	1923.4	1903.1	1907.6
55°	2290.5	2257.7	2220.5	2192.2	2164.0	2133.5	2112.0	2099.6
57.5°	2528.8	2492.7	2453.1	2412.5	2388.8	2352.6	2339.1	2332.3
60°	2773.9	2741.1	2701.6	2664.3	2631.6	2589.8	2567.2	2558.2
62.5°	3045.0	2999.8	2952.3	2906.0	2869.9	2839.4	2815.7	2799.9
65°	3294.6	3232.4	3183.9	3125.1	3085.6	3041.6	3012.2	3006.6
67.5°	3480.9	3384.9	3300.2	3224.5	3163.5	3109.3	3072.1	3057.4
70°	3493.3	3361.2	3235.8	3124.0	3034.8	2972.7	2923.0	2903.8
72.5°	3251.6	3087.9	2918.5	2808.9	2714.0	2628.2	2593.2	2585.3
75°	2645.1	2508.5	2367.3	2243.1	2177.5	2134.6	2105.3	2062.3
77.5°	1837.6	1712.2	1636.6	1497.6	1472.8	1437.8	1408.4	1380.2
80°	1028.9	919.4	834.7	747.7	694.6	665.2	634.7	617.8
82.5°	461.9	379.5	301.6	233.8	193.1	152.5	114.1	120.8
85°	115.2	97.1	74.5	62.1	56.5	52.0	41.8	37.3
87.5°	21.5	20.3	18.1	18.1	19.2	15.8	9.0	7.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)