

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: P140295

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

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P140295
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
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM
Light Source: (28) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10083.9 lumens
Efficiency: N/A
Efficacy: 98.7 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

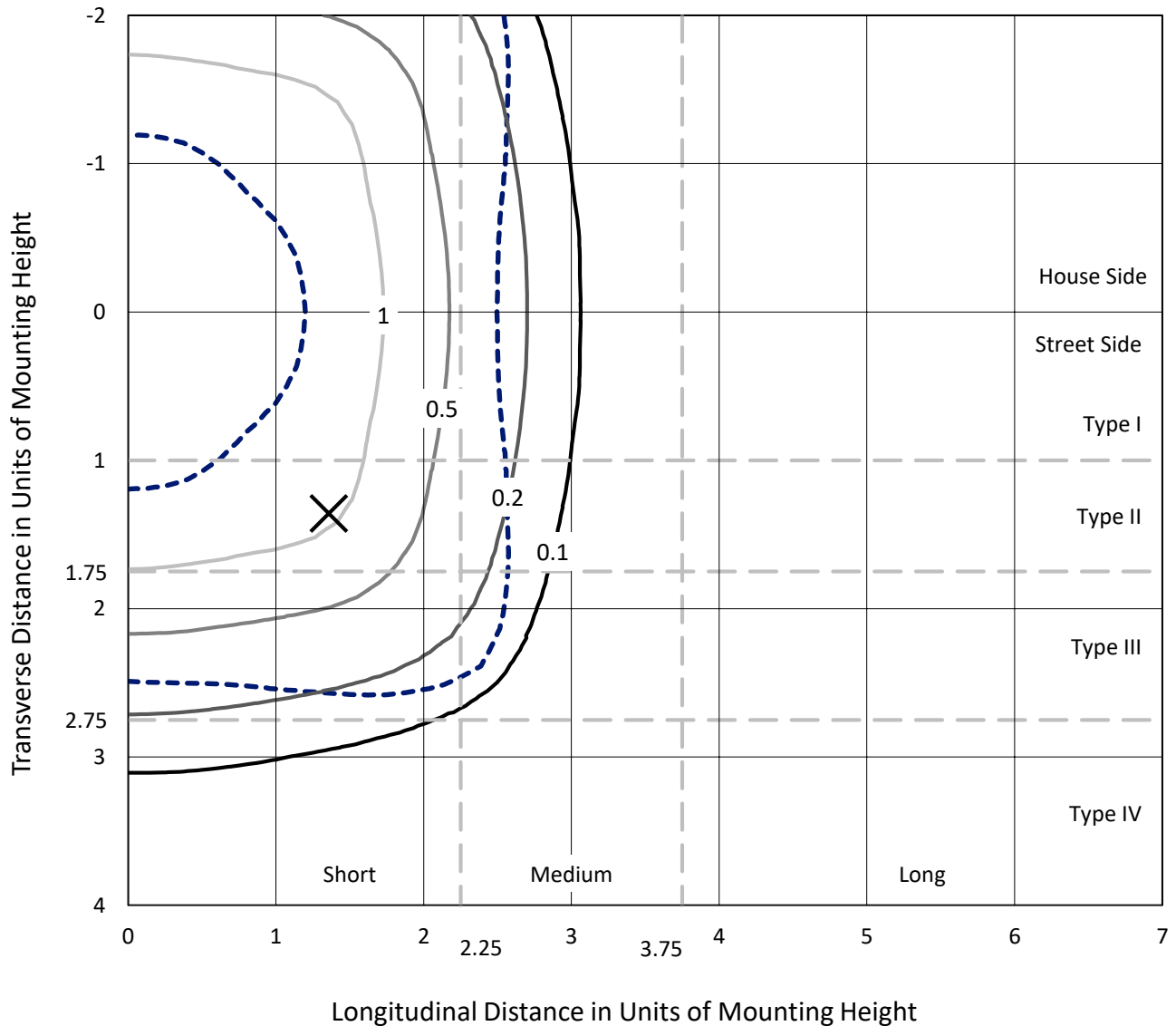
Input Watts (W): 102.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

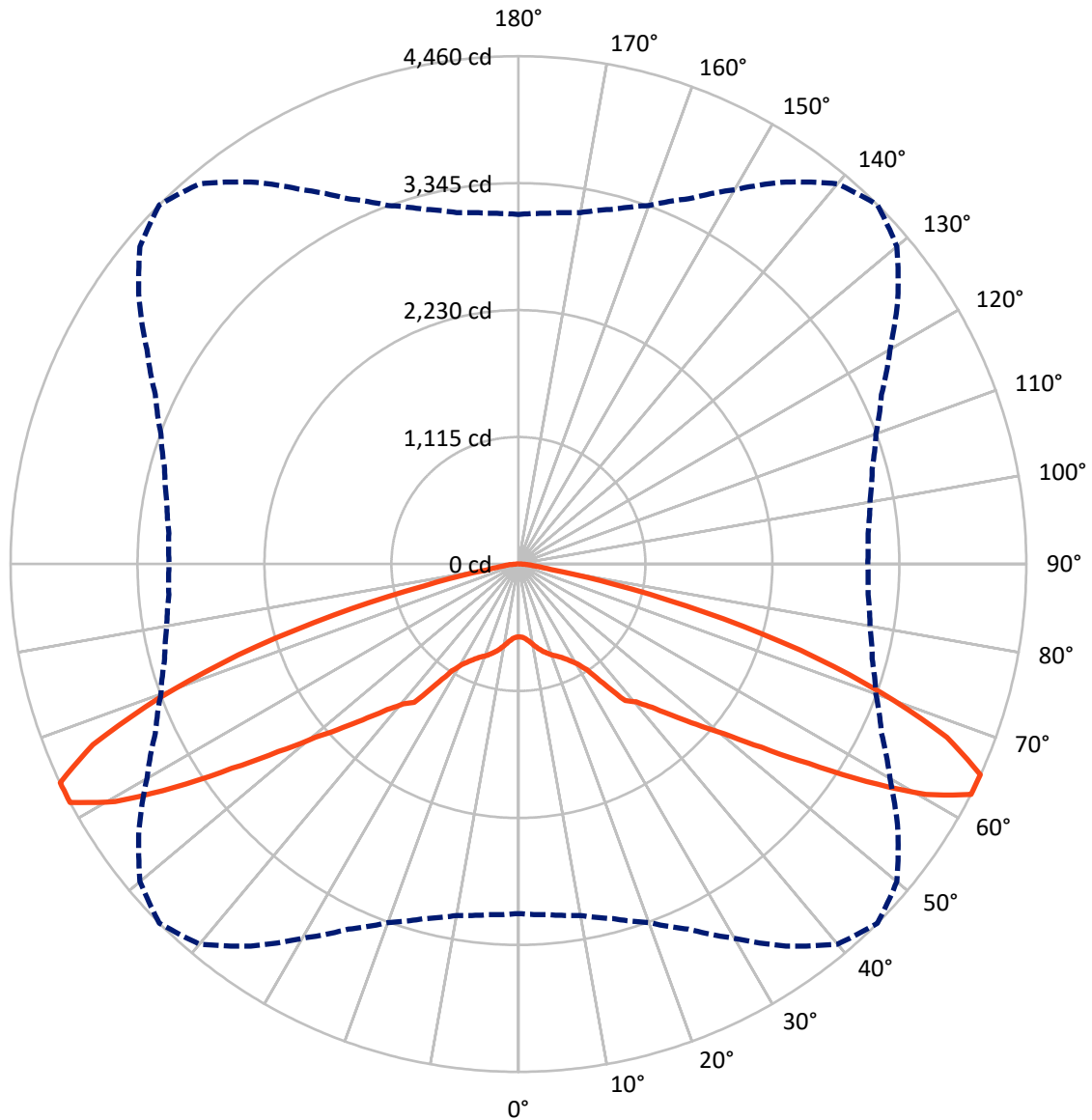
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 1.8 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	5041.9	0.0	5041.9
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	5041.9	0.0	5041.9
	% Fixture	50.0	0.0	50.0
Total	Lumens	10083.9	0.0	10083.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.1	0.6
10°-20°	226.5	2.2
20°-30°	435.3	4.3
30°-40°	837.3	8.3
40°-50°	1457.3	14.5
50°-60°	2617.5	26.0
60°-70°	3208.7	31.8
70°-80°	1131.6	11.2
80°-90°	104.6	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°	10083.9	100.0
0°-180°	10083.9	100.0



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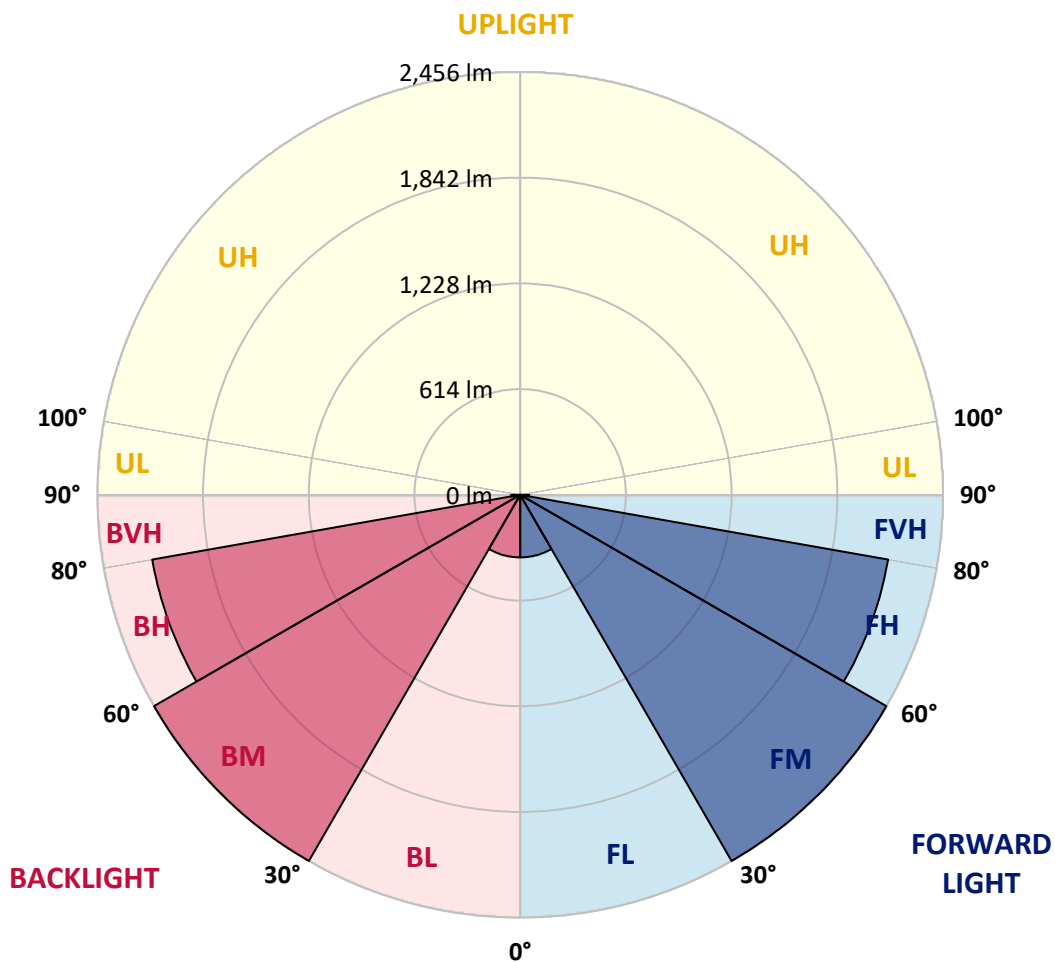
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	363.4	3.6			
FM	(30°-60°)	2456.1	24.4			
FH	(60°-80°)	2170.1	21.5			G2/5000
FVH	(80°-90°)	52.3	0.5			G1/100
BL	(0°-30°)	363.4	3.6	B1/500		
BM	(30°-60°)	2456.1	24.4	B2/2500		
BH	(60°-80°)	2170.1	21.5	B3/2500		G2/5000
BVH	(80°-90°)	52.3	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°	639.5	639.5	639.5	639.5	639.5	639.5	639.5	639.5	639.5	639.5	639.5
2.5°	647.2	647.2	646.1	645.0	645.0	645.0	643.9	643.9	645.0	642.8	642.8
5°	663.7	664.8	663.7	662.6	661.5	661.5	660.4	660.4	661.5	659.3	658.2
7.5°	694.5	695.6	693.4	692.3	691.2	690.1	689.0	687.9	689.0	685.7	685.7
10°	734.2	734.2	734.2	729.8	729.8	726.5	725.4	723.2	724.3	721.0	721.0
12.5°	773.8	773.8	772.7	770.5	769.4	767.2	765.0	765.0	762.8	758.4	756.2
15°	809.0	810.1	809.0	805.7	804.6	801.3	801.3	799.1	795.8	793.6	791.4
17.5°	842.0	843.1	839.8	838.7	835.4	833.2	831.0	829.9	827.7	824.4	823.3
20°	874.0	872.9	869.6	865.2	862.9	860.7	858.5	857.4	856.3	854.1	854.1
22.5°	904.8	904.8	901.5	894.9	890.5	888.3	885.0	882.8	880.6	879.5	881.7
25°	951.0	949.9	943.3	936.7	929.0	922.4	918.0	916.9	914.7	914.7	915.8
27.5°	1010.4	1008.2	998.3	989.5	980.7	971.9	966.4	962.0	960.9	959.8	959.8
30°	1085.3	1082.0	1073.2	1062.2	1052.3	1041.3	1030.3	1027.0	1021.4	1017.0	1024.8
32.5°	1228.4	1230.6	1213.0	1191.0	1168.9	1148.0	1129.3	1115.0	1106.2	1107.3	1107.3
35°	1385.8	1386.9	1379.2	1370.4	1363.8	1351.7	1330.7	1313.1	1299.9	1285.6	1292.2
37.5°	1454.0	1455.1	1448.5	1447.4	1451.8	1459.5	1480.4	1495.9	1519.0	1522.3	1515.7
40°	1574.0	1568.5	1559.7	1557.5	1554.2	1565.2	1574.0	1581.7	1585.0	1591.6	1585.0
42.5°	1699.5	1697.3	1690.7	1683.0	1683.0	1685.2	1699.5	1711.6	1719.3	1720.4	1719.3
45°	1840.4	1837.1	1831.6	1830.5	1833.8	1843.7	1853.6	1869.0	1893.2	1894.3	1893.2
47.5°	1995.6	1997.8	1989.0	1992.3	1997.8	2014.3	2041.8	2067.1	2093.5	2103.4	2091.3
50°	2208.0	2200.3	2200.3	2197.0	2211.3	2235.5	2268.5	2298.3	2335.7	2344.5	2325.8
52.5°	2496.4	2479.9	2483.2	2474.4	2482.1	2504.1	2558.0	2604.3	2651.6	2674.7	2638.4
55°	2843.1	2815.6	2818.9	2827.7	2834.3	2871.7	2940.0	2992.8	3082.0	3089.7	3047.8
57.5°	3127.1	3119.4	3123.8	3144.7	3186.5	3251.5	3337.3	3465.0	3575.1	3601.5	3556.4
60°	3230.6	3236.1	3266.9	3321.9	3401.2	3516.7	3684.0	3883.3	4058.3	4111.1	4042.9
62.5°	3069.9	3091.9	3133.7	3225.1	3350.5	3538.8	3795.2	4095.7	4357.7	4460.0	4337.9
65°	2756.2	2770.5	2838.7	2916.9	3078.7	3294.4	3609.2	3999.9	4322.4	4457.8	4321.3
67.5°	2344.5	2372.0	2431.4	2528.3	2668.1	2887.1	3217.3	3616.9	3940.5	4059.4	3939.4
70°	1882.2	1894.3	1931.7	2007.7	2153.0	2346.7	2629.6	2987.3	3302.1	3376.9	3281.2
72.5°	1305.4	1329.6	1361.6	1430.9	1522.3	1686.3	1919.6	2182.7	2435.8	2591.0	2450.2
75°	562.5	530.5	601.0	670.3	782.6	934.5	1117.2	1332.9	1583.9	1687.4	1548.7
77.5°	168.4	167.3	178.3	198.1	237.8	314.8	441.4	586.7	780.4	847.5	727.6
80°	137.6	142.0	146.4	150.8	155.2	160.7	170.6	199.2	244.4	288.4	234.4
82.5°	116.7	122.2	134.3	140.9	144.2	145.3	145.3	144.2	138.7	136.5	135.4
85°	88.1	96.9	113.4	123.3	123.3	123.3	123.3	120.0	112.3	99.1	110.1
87.5°	29.7	39.6	66.0	70.4	72.6	67.1	70.4	71.5	59.4	45.1	57.2
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°	639.5	639.5	639.5	639.5	639.5	639.5	639.5	639.5
2.5°	642.8	642.8	642.8	643.9	642.8	642.8	642.8	642.8
5°	659.3	658.2	659.3	658.2	659.3	659.3	658.2	659.3
7.5°	684.6	684.6	685.7	685.7	684.6	684.6	684.6	684.6
10°	718.8	716.6	717.7	717.7	717.7	716.6	716.6	715.5
12.5°	754.0	751.8	751.8	751.8	751.8	750.7	751.8	751.8
15°	787.0	784.8	782.6	782.6	783.7	784.8	784.8	783.7
17.5°	818.9	816.7	813.4	813.4	812.3	814.5	816.7	815.6
20°	850.8	849.7	844.2	844.2	844.2	846.4	847.5	850.8
22.5°	882.8	881.7	877.3	876.2	877.3	881.7	885.0	885.0
25°	916.9	919.1	918.0	918.0	920.2	926.8	930.1	934.5
27.5°	965.3	969.7	970.8	975.2	976.3	984.0	989.5	996.1
30°	1028.1	1035.8	1040.2	1047.9	1053.4	1057.8	1065.5	1071.0
32.5°	1115.0	1133.7	1155.7	1181.1	1192.1	1211.9	1220.7	1222.9
35°	1315.3	1335.1	1353.9	1364.9	1360.5	1366.0	1366.0	1370.4
37.5°	1495.9	1476.0	1459.5	1456.2	1447.4	1444.1	1445.2	1448.5
40°	1579.5	1569.6	1563.0	1566.3	1561.9	1558.6	1560.8	1561.9
42.5°	1714.9	1699.5	1694.0	1692.9	1690.7	1692.9	1698.4	1696.2
45°	1873.4	1853.6	1845.9	1844.8	1841.5	1840.4	1842.6	1847.0
47.5°	2063.8	2039.6	2015.4	2007.7	2007.7	2001.1	2005.5	1998.9
50°	2297.2	2257.5	2232.2	2217.9	2209.1	2199.2	2208.0	2193.7
52.5°	2604.3	2548.1	2520.6	2501.9	2476.6	2477.7	2479.9	2474.4
55°	2991.7	2930.1	2876.1	2839.8	2824.4	2815.6	2813.4	2831.0
57.5°	3437.5	3328.5	3242.7	3178.8	3154.6	3121.6	3106.2	3106.2
60°	3861.3	3663.1	3492.5	3385.8	3306.5	3250.4	3212.9	3201.9
62.5°	4068.2	3767.7	3517.8	3341.7	3216.2	3135.9	3082.0	3067.7
65°	3979.0	3597.1	3303.2	3105.1	2959.8	2856.3	2793.6	2776.0
67.5°	3620.2	3220.6	2911.4	2712.1	2555.8	2443.6	2396.2	2376.4
70°	3006.0	2639.5	2370.9	2176.1	2013.2	1918.5	1853.6	1827.2
72.5°	2160.7	1882.2	1635.6	1468.3	1321.9	1272.4	1184.4	1175.5
75°	1276.8	1034.7	831.0	703.3	572.4	500.8	460.1	416.1
77.5°	519.5	370.9	278.5	210.2	180.5	164.0	156.3	154.1
80°	177.2	158.5	149.7	146.4	142.0	139.8	134.3	129.9
82.5°	139.8	138.7	134.3	133.2	128.8	122.2	111.2	104.6
85°	116.7	114.5	109.0	107.9	104.6	95.8	83.7	75.9
87.5°	66.0	60.5	55.0	56.1	52.8	46.2	34.1	24.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)