

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: P140337

Luminaire Tested: **EMM-F04-LED-E1-5MQ-7060**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P140337  
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: EMM-F04-LED-E1-5MQ-7060  
Description: EPIC MODERN MEDIUM DECORATIVE LED LUMINAIRE  
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM  
Light Source: (28) 5700K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10347.1 lumens  
Efficiency: N/A  
Efficacy: 101.2 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

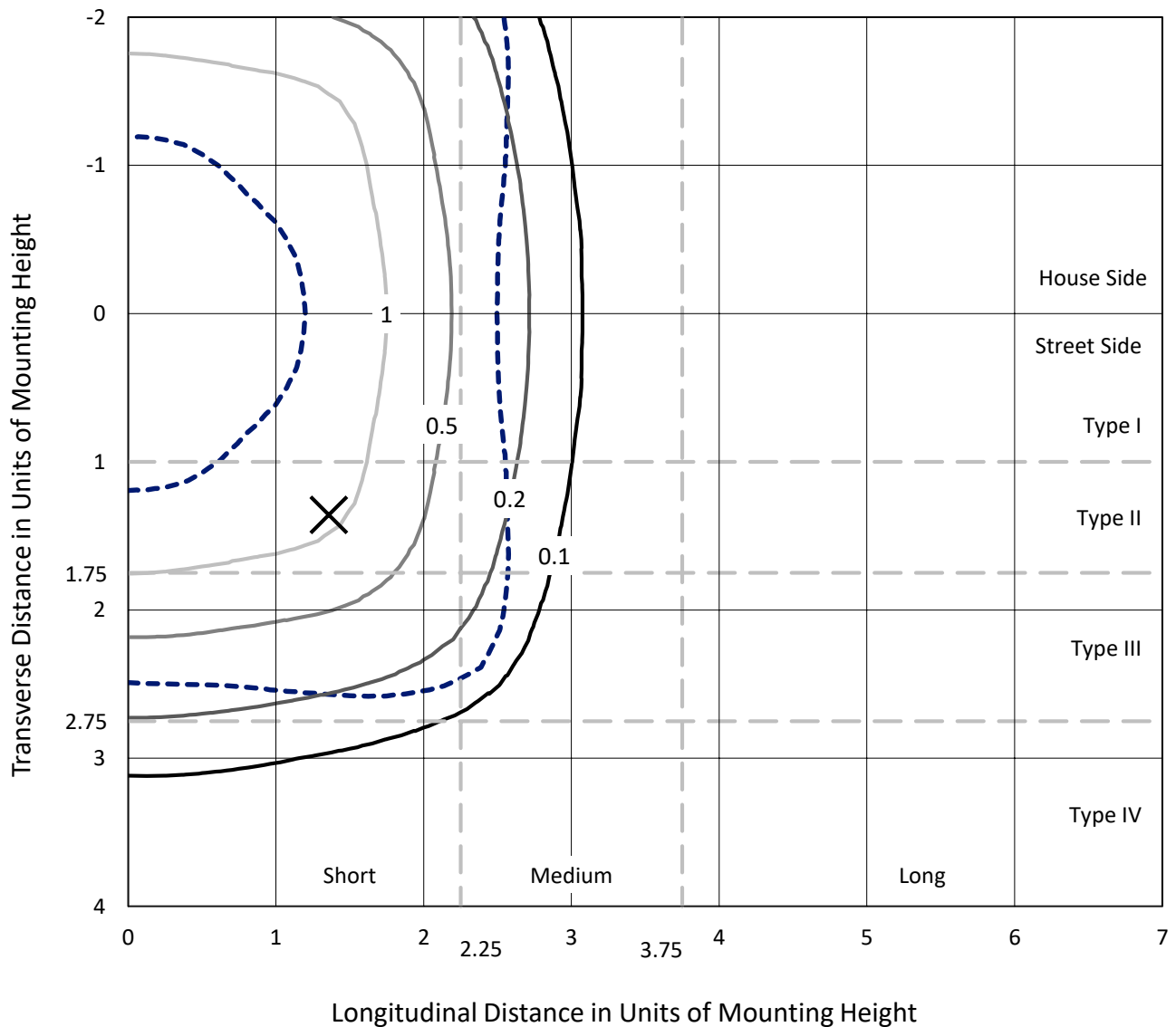
Input Watts (W): 102.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

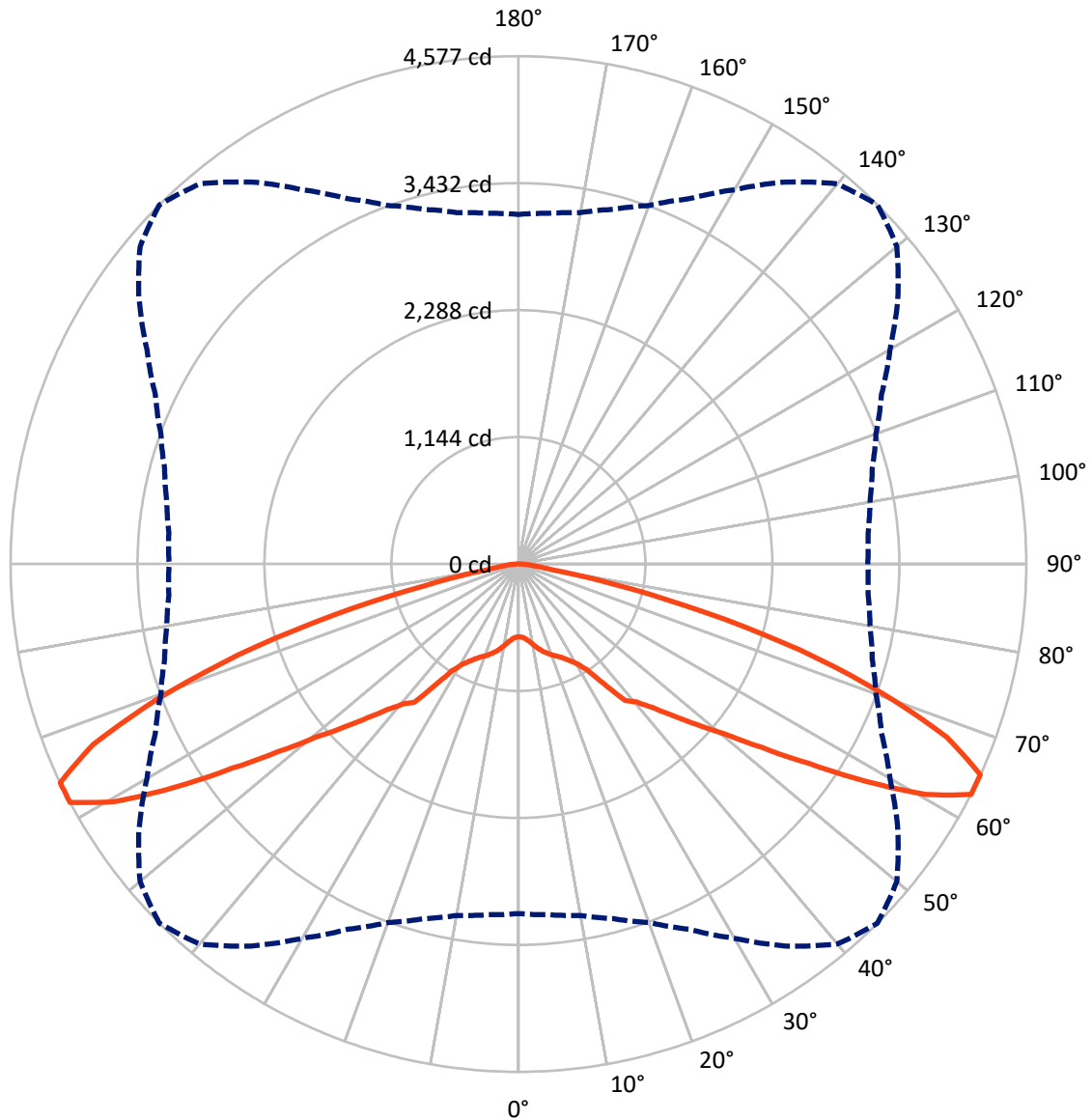
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 1.9 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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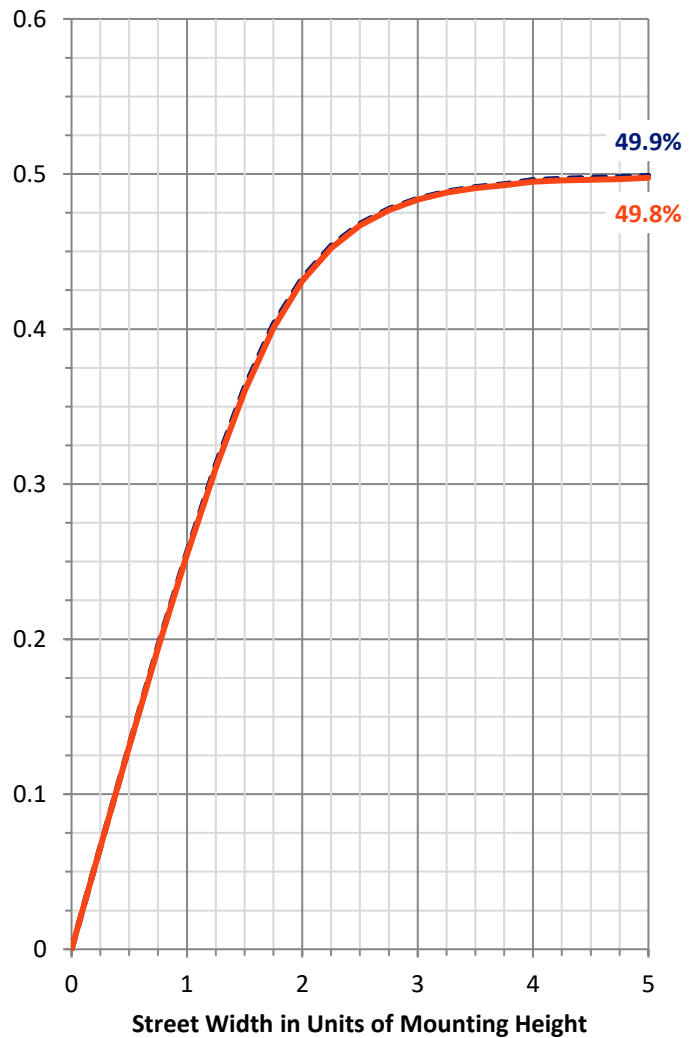
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5173.5	0.0	5173.5
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	5173.5	0.0	5173.5
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	10347.1	0.0	10347.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.8	0.6
10°-20°	232.4	2.2
20°-30°	446.6	4.3
30°-40°	859.2	8.3
40°-50°	1495.3	14.5
50°-60°	2685.8	26.0
60°-70°	3292.4	31.8
70°-80°	1161.1	11.2
80°-90°	107.4	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°	10347.1	100.0
0°-180°	10347.1	100.0



--- HS    — SS

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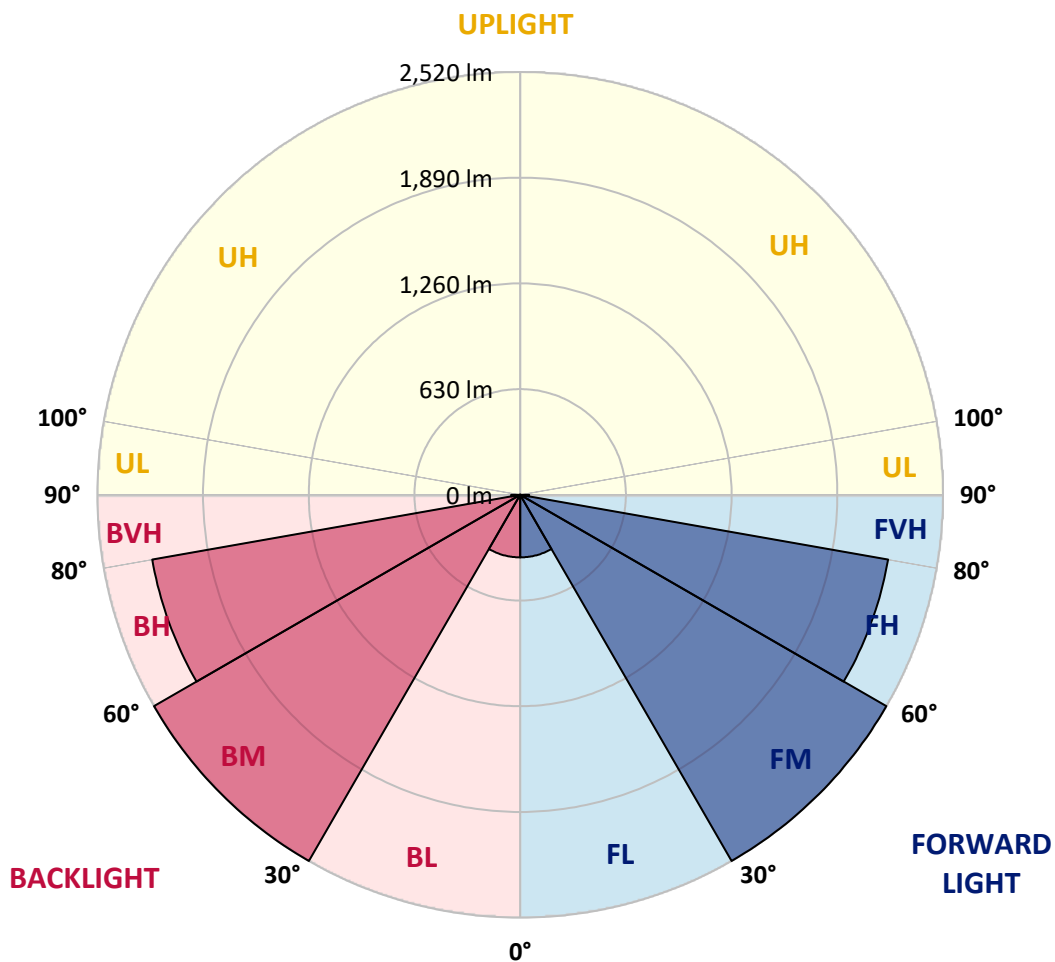
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	372.9	3.6			
FM (30°-60°)	2520.2	24.4			
FH (60°-80°)	2226.8	21.5			G2/5000
FVH (80°-90°)	53.7	0.5			G1/100
BL (0°-30°)	372.9	3.6	B1/500		
BM (30°-60°)	2520.2	24.4	B3/5000		
BH (60°-80°)	2226.8	21.5	B3/2500		G2/5000
BVH (80°-90°)	53.7	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°	656.2	656.2	656.2	656.2	656.2	656.2	656.2	656.2	656.2	656.2	656.2
2.5°	664.1	664.1	663.0	661.8	661.8	661.8	660.7	660.7	661.8	659.6	659.6
5°	681.0	682.2	681.0	679.9	678.8	678.8	677.7	677.7	678.8	676.5	675.4
7.5°	712.7	713.8	711.5	710.4	709.3	708.2	707.0	705.9	707.0	703.6	703.6
10°	753.3	753.3	753.3	748.8	748.8	745.4	744.3	742.0	743.2	739.8	739.8
12.5°	794.0	794.0	792.9	790.6	789.5	787.2	785.0	785.0	782.7	778.2	775.9
15°	830.1	831.3	830.1	826.7	825.6	822.2	822.2	820.0	816.6	814.3	812.1
17.5°	864.0	865.1	861.8	860.6	857.2	855.0	852.7	851.6	849.3	845.9	844.8
20°	896.8	895.6	892.3	887.7	885.5	883.2	881.0	879.8	878.7	876.4	876.4
22.5°	928.4	928.4	925.0	918.2	913.7	911.5	908.1	905.8	903.5	902.4	904.7
25°	975.8	974.7	967.9	961.1	953.2	946.5	941.9	940.8	938.6	938.6	939.7
27.5°	1036.8	1034.6	1024.4	1015.4	1006.3	997.3	991.6	987.1	986.0	984.9	984.9
30°	1113.6	1110.2	1101.2	1089.9	1079.7	1068.4	1057.2	1053.8	1048.1	1043.6	1051.5
32.5°	1260.4	1262.7	1244.6	1222.0	1199.5	1178.0	1158.8	1144.1	1135.1	1136.2	1136.2
35°	1422.0	1423.1	1415.2	1406.1	1399.4	1386.9	1365.5	1347.4	1333.9	1319.2	1326.0
37.5°	1492.0	1493.1	1486.3	1485.2	1489.7	1497.6	1519.1	1534.9	1558.6	1562.0	1555.2
40°	1615.1	1609.4	1600.4	1598.1	1594.8	1606.1	1615.1	1623.0	1626.4	1633.2	1626.4
42.5°	1743.8	1741.6	1734.8	1726.9	1726.9	1729.2	1743.8	1756.3	1764.2	1765.3	1764.2
45°	1888.4	1885.0	1879.4	1878.2	1881.6	1891.8	1902.0	1917.8	1942.6	1943.8	1942.6
47.5°	2047.7	2049.9	2040.9	2044.3	2049.9	2066.9	2095.1	2121.1	2148.2	2158.3	2145.9
50°	2265.6	2257.7	2257.7	2254.4	2269.0	2293.9	2327.8	2358.3	2396.7	2405.7	2386.5
52.5°	2561.6	2544.6	2548.0	2539.0	2546.9	2569.5	2624.8	2672.2	2720.8	2744.5	2707.3
55°	2917.3	2889.1	2892.5	2901.5	2908.3	2946.7	3016.7	3070.9	3162.4	3170.3	3127.4
57.5°	3208.7	3200.8	3205.3	3226.8	3269.7	3336.3	3424.4	3555.5	3668.4	3695.5	3649.2
60°	3314.9	3320.5	3352.2	3408.6	3490.0	3608.5	3780.2	3984.6	4164.2	4218.4	4148.4
62.5°	3150.0	3172.6	3215.5	3309.2	3438.0	3631.1	3894.3	4202.6	4471.4	4576.5	4451.1
65°	2828.1	2842.8	2912.8	2993.0	3159.0	3380.4	3703.4	4104.4	4435.3	4574.2	4434.2
67.5°	2405.7	2433.9	2494.9	2594.3	2737.7	2962.5	3301.3	3711.3	4043.4	4165.4	4042.2
70°	1931.3	1943.8	1982.2	2060.1	2209.2	2408.0	2698.2	3065.3	3388.3	3465.1	3366.8
72.5°	1339.5	1364.4	1397.1	1468.3	1562.0	1730.3	1969.7	2239.7	2499.4	2658.7	2514.1
75°	577.1	544.4	616.7	687.8	803.0	958.9	1146.4	1367.7	1625.3	1731.4	1589.1
77.5°	172.8	171.7	183.0	203.3	244.0	323.0	452.9	602.0	800.8	869.7	746.6
80°	141.2	145.7	150.2	154.7	159.3	164.9	175.1	204.4	250.7	295.9	240.6
82.5°	119.7	125.4	137.8	144.6	148.0	149.1	149.1	148.0	142.3	140.0	138.9
85°	90.4	99.4	116.3	126.5	126.5	126.5	126.5	123.1	115.2	101.6	112.9
87.5°	30.5	40.7	67.8	72.3	74.5	68.9	72.3	73.4	61.0	46.3	58.7
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°	656.2	656.2	656.2	656.2	656.2	656.2	656.2	656.2
2.5°	659.6	659.6	659.6	660.7	659.6	659.6	659.6	659.6
5°	676.5	675.4	676.5	675.4	676.5	676.5	675.4	676.5
7.5°	702.5	702.5	703.6	703.6	702.5	702.5	702.5	702.5
10°	737.5	735.3	736.4	736.4	736.4	735.3	735.3	734.1
12.5°	773.7	771.4	771.4	771.4	771.4	770.3	771.4	771.4
15°	807.5	805.3	803.0	803.0	804.2	805.3	805.3	804.2
17.5°	840.3	838.0	834.7	834.7	833.5	835.8	838.0	836.9
20°	873.1	871.9	866.3	866.3	866.3	868.5	869.7	873.1
22.5°	905.8	904.7	900.2	899.0	900.2	904.7	908.1	908.1
25°	940.8	943.1	941.9	941.9	944.2	951.0	954.4	958.9
27.5°	990.5	995.0	996.2	1000.7	1001.8	1009.7	1015.4	1022.1
30°	1054.9	1062.8	1067.3	1075.2	1080.9	1085.4	1093.3	1098.9
32.5°	1144.1	1163.3	1185.9	1211.9	1223.2	1243.5	1252.5	1254.8
35°	1349.7	1370.0	1389.2	1400.5	1396.0	1401.6	1401.6	1406.1
37.5°	1534.9	1514.6	1497.6	1494.2	1485.2	1481.8	1482.9	1486.3
40°	1620.7	1610.6	1603.8	1607.2	1602.7	1599.3	1601.5	1602.7
42.5°	1759.7	1743.8	1738.2	1737.1	1734.8	1737.1	1742.7	1740.5
45°	1922.3	1902.0	1894.1	1892.9	1889.5	1888.4	1890.7	1895.2
47.5°	2117.7	2092.8	2068.0	2060.1	2060.1	2053.3	2057.8	2051.1
50°	2357.1	2316.5	2290.5	2275.8	2266.8	2256.6	2265.6	2251.0
52.5°	2672.2	2614.6	2586.4	2567.2	2541.2	2542.4	2544.6	2539.0
55°	3069.8	3006.6	2951.2	2913.9	2898.1	2889.1	2886.8	2904.9
57.5°	3527.2	3415.4	3327.3	3261.8	3237.0	3203.1	3187.3	3187.3
60°	3962.1	3758.8	3583.7	3474.1	3392.8	3335.2	3296.8	3285.5
62.5°	4174.4	3866.1	3609.7	3429.0	3300.2	3217.8	3162.4	3147.7
65°	4082.9	3691.0	3389.4	3186.1	3037.0	2930.9	2866.5	2848.4
67.5°	3714.7	3304.7	2987.4	2782.9	2622.5	2507.3	2458.8	2438.4
70°	3084.5	2708.4	2432.8	2232.9	2065.7	1968.6	1902.0	1874.9
72.5°	2217.1	1931.3	1678.3	1506.7	1356.5	1305.6	1215.3	1206.2
75°	1310.1	1061.7	852.7	721.7	587.3	513.9	472.1	426.9
77.5°	533.1	380.6	285.7	215.7	185.2	168.3	160.4	158.1
80°	181.8	162.6	153.6	150.2	145.7	143.4	137.8	133.3
82.5°	143.4	142.3	137.8	136.7	132.1	125.4	114.1	107.3
85°	119.7	117.5	111.8	110.7	107.3	98.3	85.8	77.9
87.5°	67.8	62.1	56.5	57.6	54.2	47.4	35.0	24.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)