

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: P597152

Luminaire Tested: **MSA-SA4C-835-U-T3**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P597152
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-10)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA4C-835-U-T3
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19808 lumens
Efficiency: N/A
Efficacy: 88.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

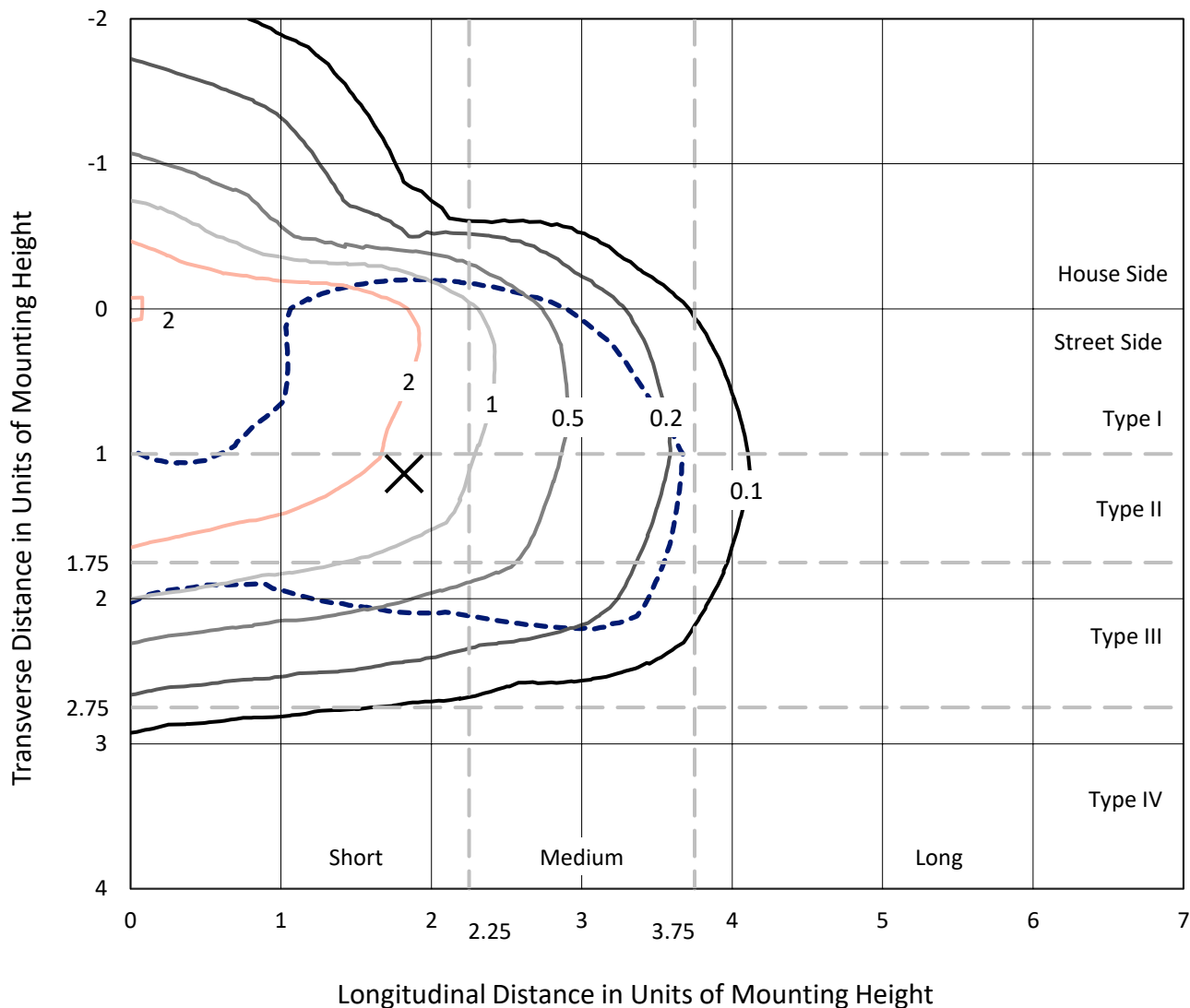
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

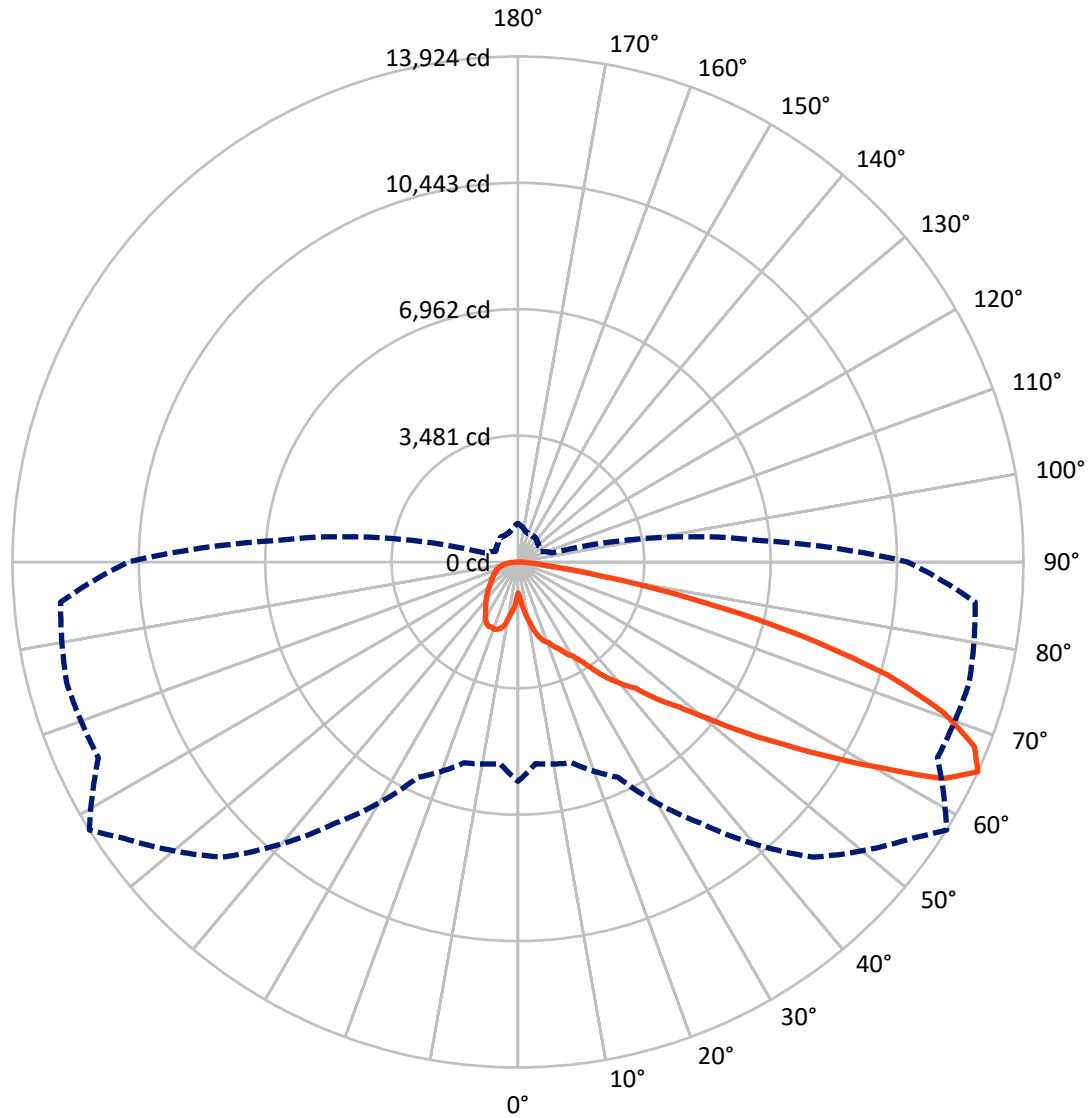
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.1 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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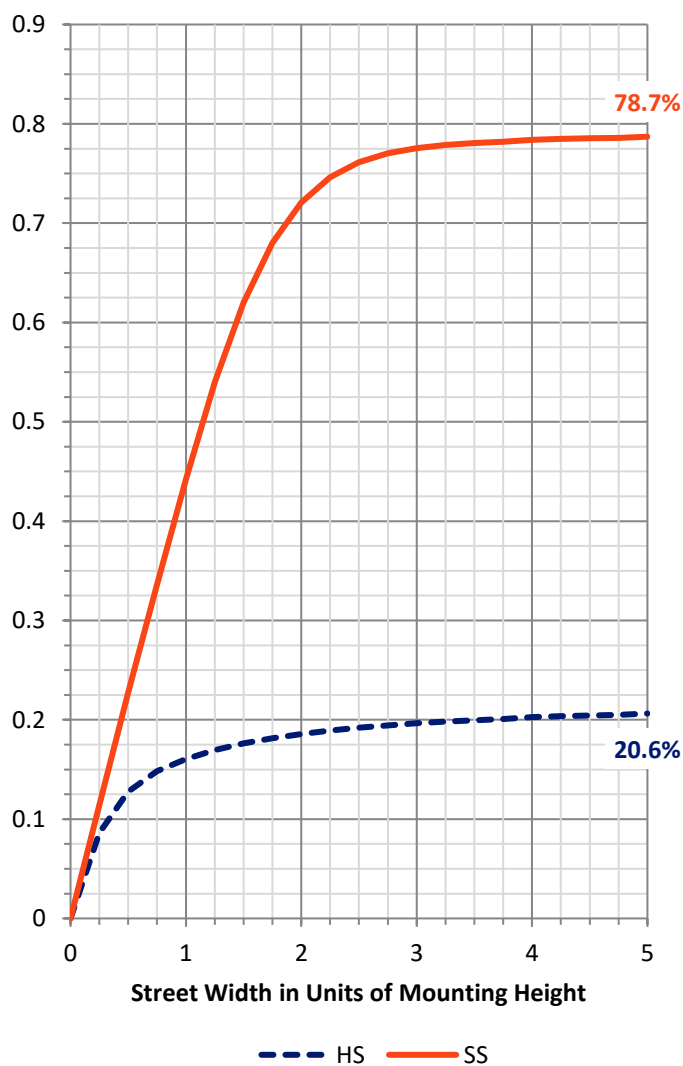
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4172.2	0.0	4172.2
	% Fixture	21.1	0.0	21.1
Street Side	Lumens	15635.8	0.0	15635.8
	% Fixture	78.9	0.0	78.9
Total	Lumens	19808.0	0.0	19808.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.6	0.7
10°-20°	565.3	2.9
20°-30°	1084.7	5.5
30°-40°	1790.8	9.0
40°-50°	2976.6	15.0
50°-60°	4915.8	24.8
60°-70°	5514.6	27.8
70°-80°	2507.3	12.7
80°-90°	323.4	1.6
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°	19808.0	100.0
0°-180°	19808.0	100.0

Coefficient of Utilization



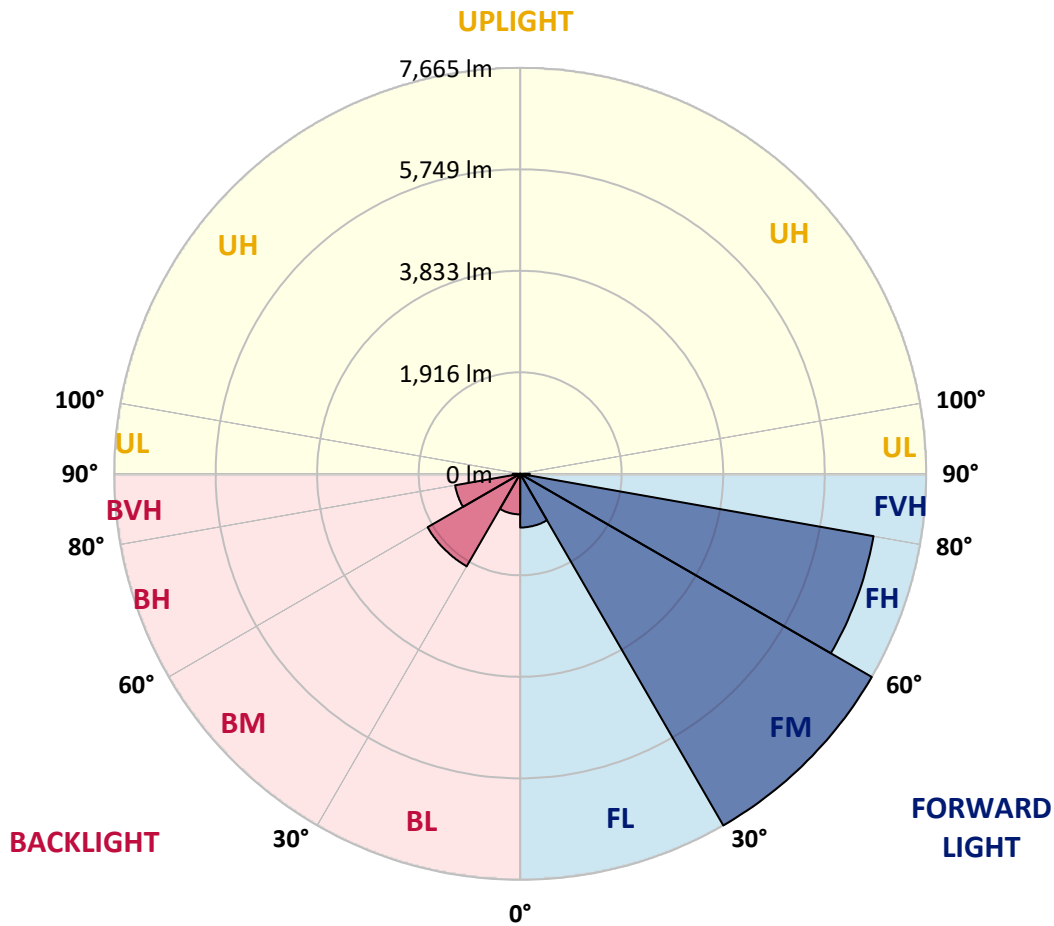
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1013.6	5.1			
FM (30°-60°)	7665.4	38.7			
FH (60°-80°)	6774.7	34.2			G3/7500
FVH (80°-90°)	182.1	0.9			G2/225
BL (0°-30°)	765.9	3.9	B2/1000		
BM (30°-60°)	2017.8	10.2	B2/2500		
BH (60°-80°)	1247.2	6.3	B3/2500		G3/2500
BVH (80°-90°)	141.3	0.7			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	850.5	850.5	850.5	850.5	850.5	850.5	850.5	850.5	850.5	850.5	850.5
2.5°	1015.4	984.9	933.8	946.2	975.8	992.3	982.4	969.2	951.9	948.6	1024.5
5°	1314.9	1256.3	1232.4	1222.5	1186.2	1164.7	1201.9	1196.9	1216.7	1253.0	1327.3
7.5°	1533.5	1492.2	1452.6	1448.5	1378.4	1353.7	1403.1	1429.5	1465.0	1465.8	1566.5
10°	1650.6	1615.1	1614.3	1577.2	1571.4	1618.4	1619.3	1639.1	1643.2	1685.3	1665.5
12.5°	1777.6	1775.2	1820.5	1819.7	1872.5	1950.0	1911.3	1911.3	1922.8	1871.7	1934.4
15°	2080.4	2106.8	2021.8	2035.8	2035.8	2111.7	2109.3	2124.1	2159.6	2146.4	2118.3
17.5°	2395.5	2412.0	2318.0	2230.5	2237.1	2220.6	2280.0	2285.8	2252.0	2405.4	2371.6
20°	2598.4	2662.8	2464.8	2355.1	2376.5	2395.5	2398.0	2362.5	2345.2	2581.1	2534.9
22.5°	2849.2	2794.7	2613.3	2492.0	2524.2	2498.6	2493.7	2520.9	2544.8	2633.9	2709.0
25°	3016.6	3012.5	2794.7	2661.9	2626.5	2619.0	2669.4	2658.6	2715.5	2877.2	2830.2
27.5°	3260.0	3335.9	2949.8	2982.8	2826.9	2662.8	2824.4	2873.1	2975.4	2949.0	3053.8
30°	3731.8	3674.9	3271.5	3262.5	3085.9	2948.2	3060.4	3019.1	3203.1	3197.3	3274.8
32.5°	4117.0	4156.6	3649.3	3554.5	3423.3	3257.5	3183.3	3297.9	3396.9	3559.4	3603.1
35°	4524.5	4515.5	4036.2	3844.8	3627.9	3559.4	3651.0	3698.8	3909.2	4058.5	3954.5
37.5°	5158.1	5086.3	4537.7	4175.6	4013.1	3988.4	4145.1	4075.8	4303.5	4338.9	4397.5
40°	5747.0	5530.9	4996.4	4581.5	4323.3	4415.7	4420.6	4429.7	4551.8	4648.3	4937.8
42.5°	6307.1	6155.4	5462.4	5150.6	4770.4	4680.4	4736.5	4755.5	5064.0	5261.2	5662.1
45°	7072.6	6666.0	6132.3	5812.2	5386.6	5271.9	5232.3	5395.6	5693.4	6142.2	6486.1
47.5°	7720.2	7353.1	6844.1	6422.6	5946.7	6274.1	6049.8	5958.2	6358.3	6914.3	7462.0
50°	8257.2	7853.0	7353.9	7110.6	7034.7	7326.7	6744.3	6755.1	7121.3	7905.8	8533.5
52.5°	8672.9	8241.5	7799.4	7675.6	8099.6	8267.9	7847.2	7783.7	8051.0	8978.1	9732.1
55°	9061.5	8603.6	8262.1	8514.6	9228.9	9247.9	9218.2	8866.0	9187.7	10127.2	10972.7
57.5°	9161.3	8668.0	8441.1	8803.3	9769.2	10520.7	10816.0	10124.7	10452.2	11172.4	12035.2
60°	8647.4	8225.0	8134.3	8625.9	10061.2	11160.0	11931.3	11518.0	11395.1	12011.3	12779.3
62.5°	7594.8	7104.8	7178.2	7861.2	9753.5	11413.2	12812.2	13134.8	12390.7	12678.6	13104.3
65°	6044.8	5577.1	5725.6	6547.2	8787.6	11497.4	13262.6	13924.2	12750.4	12867.5	12644.0
67.5°	4263.0	3838.2	4025.5	5087.9	7310.2	10420.1	13340.2	13556.3	12367.6	12328.9	11386.8
70°	2415.3	2148.8	2351.8	3237.7	5159.7	8300.9	12732.2	12447.6	11681.3	11131.9	9527.5
72.5°	1107.8	1016.3	1113.6	1648.1	2970.4	5523.5	10394.5	10652.7	10065.4	9378.2	7248.3
75°	589.0	556.8	598.0	823.2	1389.9	3005.1	7385.3	7966.0	7653.4	7113.1	4728.3
77.5°	438.0	413.3	433.1	533.7	742.4	1175.5	4196.2	4928.7	5047.5	4550.1	2625.6
80°	335.7	315.9	335.7	403.4	513.9	558.5	1794.1	2297.3	2616.6	2114.2	1043.5
82.5°	249.1	235.9	266.4	302.7	361.3	348.9	636.8	792.7	1022.0	698.7	406.7
85°	198.0	181.5	193.0	205.4	231.0	191.4	291.2	325.8	344.8	288.7	150.1
87.5°	77.5	71.8	140.2	110.5	94.0	57.7	87.4	99.0	101.5	97.3	43.7
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	850.5	850.5	850.5	850.5	850.5	850.5	850.5	850.5	850.5	850.5	850.5
2.5°	1032.8	1024.5	975.8	991.5	1017.1	1022.0	1032.8	1003.1	988.2	1042.7	1045.1
5°	1333.9	1289.3	1266.2	1268.7	1252.2	1226.6	1265.4	1291.0	1300.9	1341.3	1356.1
7.5°	1567.3	1513.7	1474.9	1430.4	1367.7	1327.3	1394.9	1444.4	1470.8	1554.9	1587.9
10°	1671.2	1628.3	1620.1	1564.0	1562.3	1561.5	1558.2	1540.9	1597.8	1589.6	1612.7
12.5°	1885.7	1876.6	1798.3	1776.0	1778.5	1776.0	1706.7	1703.4	1704.2	1780.1	1752.9
15°	2085.3	2087.0	2015.2	1934.4	1861.8	1839.5	1812.3	1799.9	1818.1	1861.0	1834.6
17.5°	2332.0	2340.2	2134.8	2007.0	1911.3	1908.8	1843.6	1766.9	1877.5	1903.9	1875.0
20°	2491.2	2456.5	2204.1	1989.6	1962.4	1888.2	1807.3	1701.8	1797.4	1861.8	1879.9
22.5°	2642.1	2581.9	2268.5	2020.2	1889.8	1801.6	1723.2	1654.7	1685.3	1757.0	1745.5
25°	2744.4	2727.9	2357.5	2093.6	1887.4	1691.0	1585.4	1541.7	1557.4	1668.8	1658.0
27.5°	2988.6	2810.4	2341.9	2112.6	1808.2	1540.1	1487.3	1440.3	1424.6	1545.0	1578.0
30°	3151.9	3078.5	2446.6	2082.9	1708.4	1416.3	1338.8	1328.9	1333.9	1470.8	1479.9
32.5°	3429.1	3238.5	2618.2	1969.0	1563.2	1324.8	1235.7	1239.8	1262.1	1361.9	1382.5
35°	3717.8	3604.0	2641.3	1887.4	1445.2	1227.4	1191.1	1162.3	1174.6	1262.1	1266.2
37.5°	4254.0	3860.5	2783.2	1761.1	1358.6	1190.3	1121.0	1095.5	1102.1	1151.6	1187.0
40°	4725.8	4376.1	2717.2	1639.1	1251.4	1140.8	1054.2	1035.2	1015.4	1064.1	1086.4
42.5°	5482.2	4744.0	2694.9	1504.6	1201.0	1074.0	1014.6	964.3	945.3	986.6	1027.0
45°	6238.7	5134.1	2573.7	1368.5	1130.1	1069.1	956.9	909.0	914.0	951.1	992.3
47.5°	7081.7	5657.9	2368.3	1236.5	1052.6	1045.1	899.1	878.5	893.4	934.6	975.8
50°	8078.2	6213.9	2198.3	1117.7	997.3	973.4	891.7	867.0	881.0	929.7	970.1
52.5°	9167.9	6823.5	2074.6	1008.0	934.6	916.5	901.6	877.7	894.2	936.3	978.3
55°	10251.0	7380.3	1990.5	933.0	881.0	892.5	922.2	904.9	913.2	944.5	986.6
57.5°	11054.4	7674.0	1821.4	852.9	837.3	878.5	924.7	895.8	900.8	944.5	989.9
60°	11521.3	7730.1	1543.4	787.8	802.6	850.5	899.1	862.0	858.7	930.5	987.4
62.5°	11470.1	7404.2	1224.1	728.4	763.0	808.4	860.4	824.9	834.0	932.1	992.3
65°	10737.6	6738.6	973.4	678.1	715.2	762.2	828.2	814.2	857.9	998.1	1063.3
67.5°	9450.8	5766.0	782.0	631.0	670.6	730.9	850.5	887.6	906.6	1065.8	1132.6
70°	7659.1	4480.0	651.7	589.8	635.2	745.7	914.8	907.4	891.7	1033.6	1086.4
72.5°	5533.4	3071.1	573.3	549.4	591.4	701.2	916.5	876.9	857.1	943.7	981.6
75°	3462.1	1832.1	500.7	498.2	524.6	628.6	875.2	839.7	786.1	829.0	878.5
77.5°	1977.3	937.9	421.5	443.8	459.5	545.3	783.6	751.5	703.6	721.8	770.5
80°	754.8	453.7	355.5	394.3	390.2	461.9	664.0	656.6	602.2	607.9	637.6
82.5°	355.5	254.1	295.3	339.0	316.8	367.9	539.5	537.0	489.2	443.0	466.9
85°	132.0	135.3	216.1	258.2	220.2	237.6	390.2	379.5	333.3	281.3	311.0
87.5°	29.7	48.7	106.4	134.5	76.7	73.4	157.6	136.9	132.0	78.4	82.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)