

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: P472252

Luminaire Tested: **CCW-VA-4-840-U-T2**

Issue Date: 01/27/2021

Test Information

Test Method: LM-79-08
Report Number: P472252
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-VA-4-840-U-T2
Description: INVUE WALL PACK Wave Stream LUMINAIRE WITH T2 DISTRIBUTION LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5443.5 lumens
Efficiency: N/A
Efficacy: 84.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.54' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

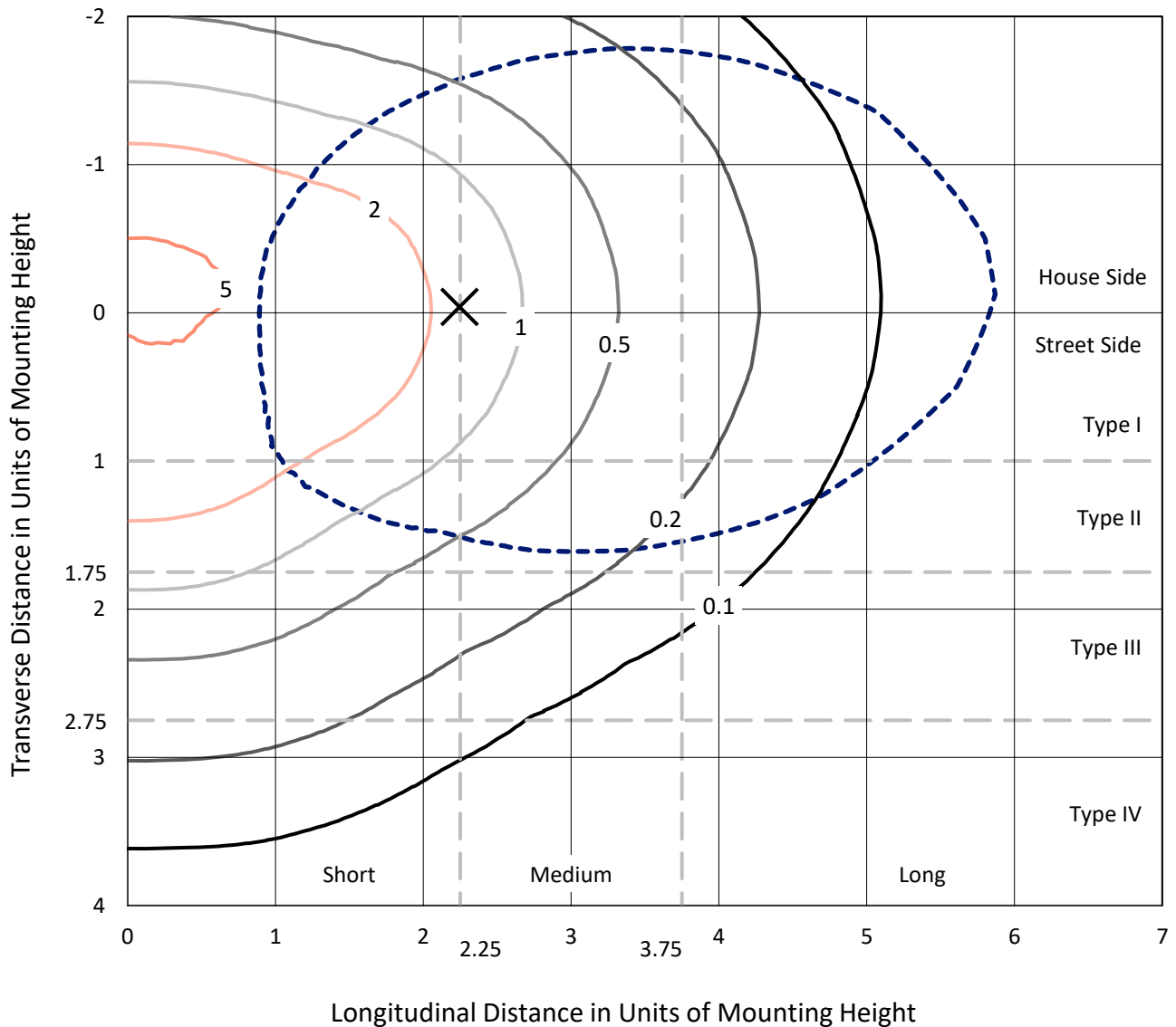
Input Watts (W): 64.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P472252
 CATALOG NUMBER: CCW-VA-4-840-U-T2

Iso-Footcandle Lines of Horizontal Illumination

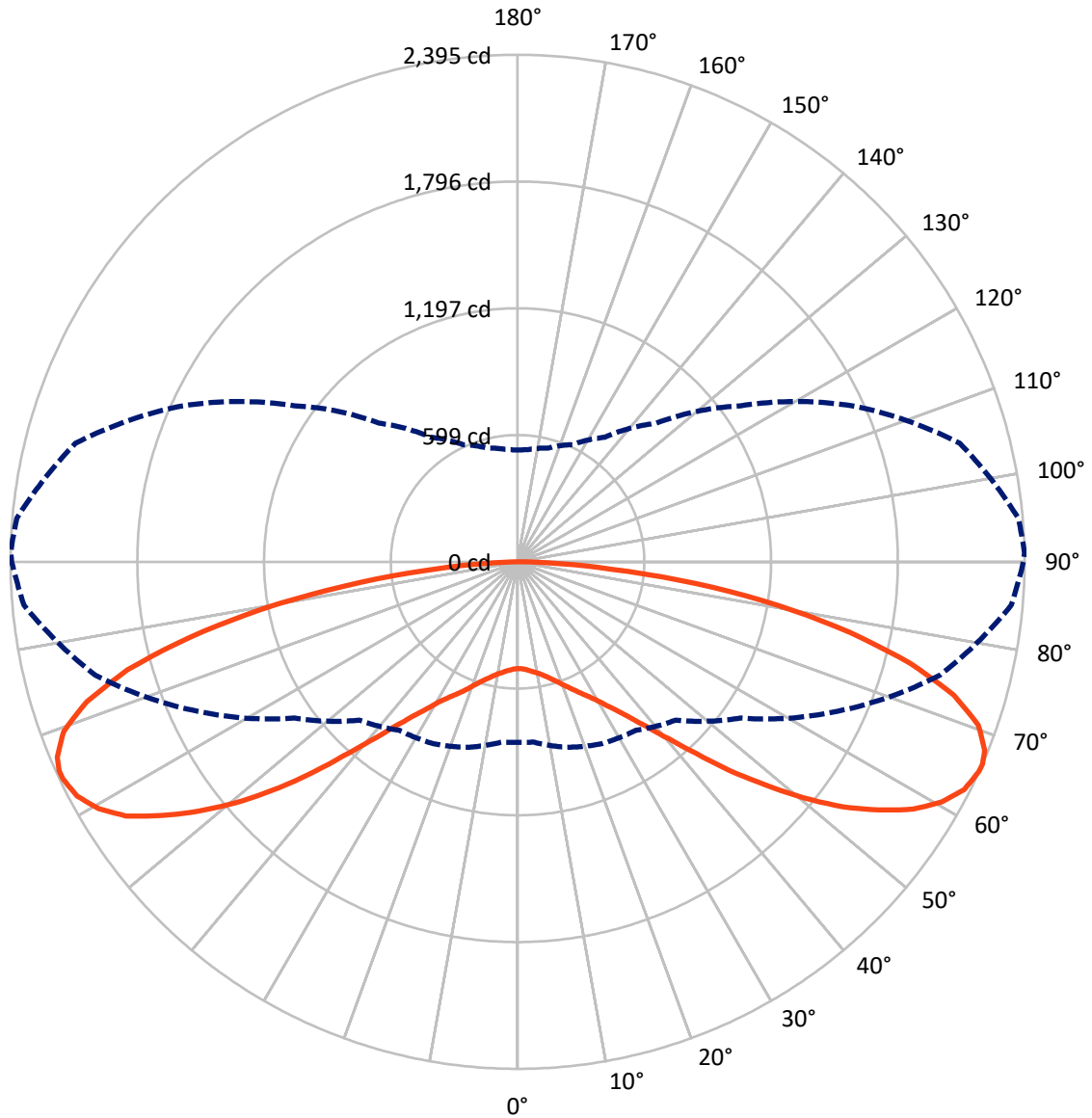
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.4 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 91-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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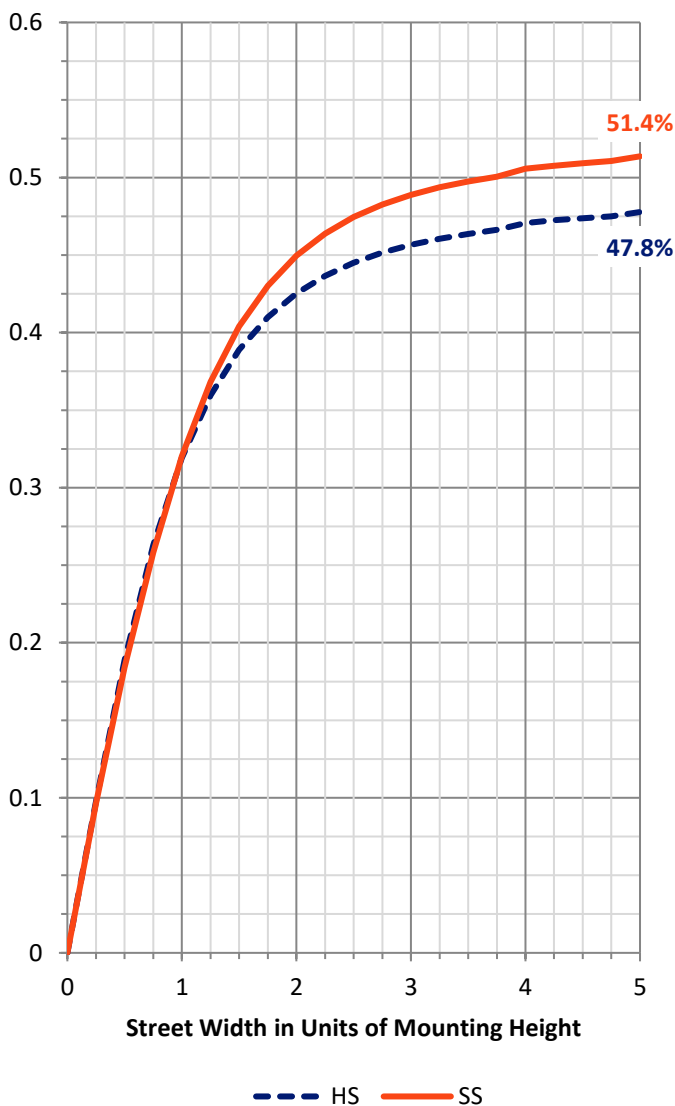
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2627.3	0.0	2627.3
	% Fixture	48.3	0.0	48.3
Street Side	Lumens	2816.2	0.0	2816.2
	% Fixture	51.7	0.0	51.7
Total	Lumens	5443.5	0.0	5443.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.7	0.9
10°-20°	162.5	3.0
20°-30°	314.3	5.8
30°-40°	515.7	9.5
40°-50°	816.8	15.0
50°-60°	1126.3	20.7
60°-70°	1264.7	23.2
70°-80°	945.2	17.4
80°-90°	248.4	4.6
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°	5443.5	100.0
0°-180°	5443.5	100.0

Coefficient of Utilization



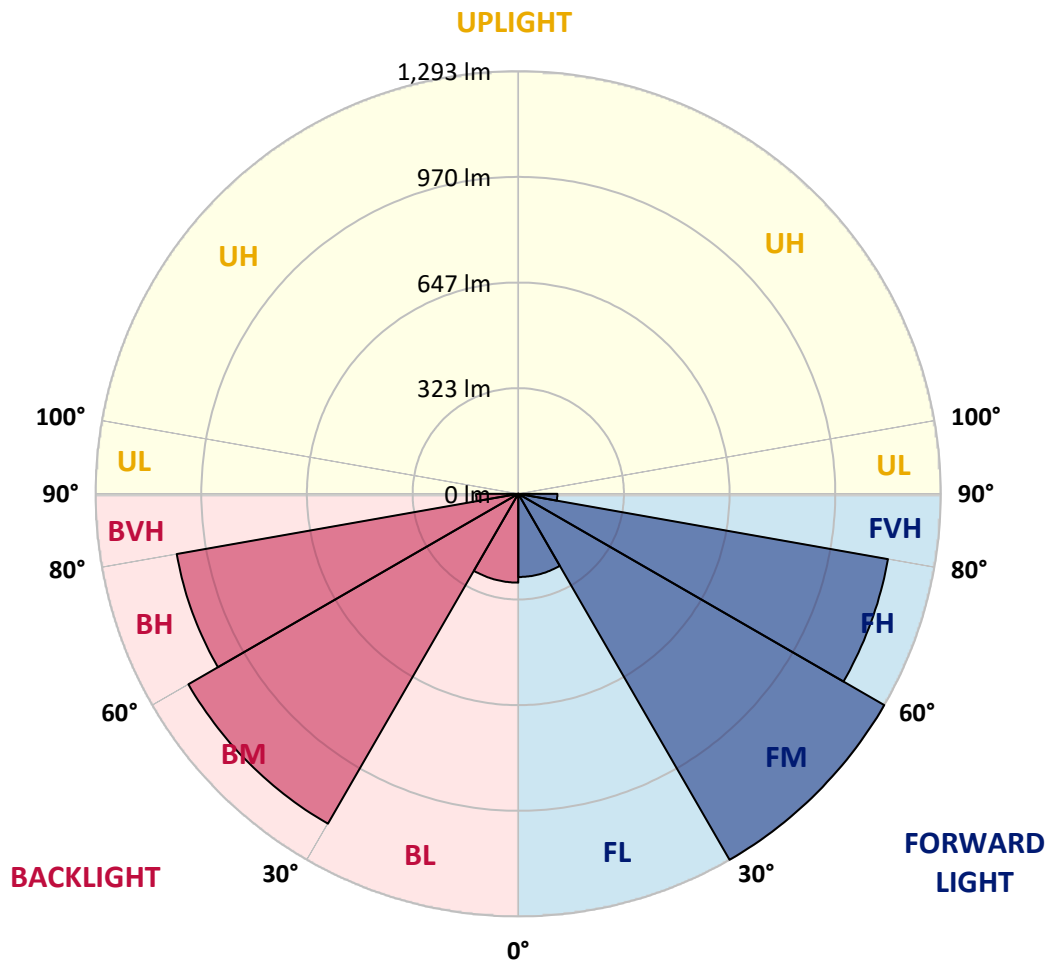
REPORT NUMBER: P472252
 CATALOG NUMBER: CCW-VA-4-840-U-T2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	254.5	4.7			
FM (30°-60°)	1293.2	23.8			
FH (60°-80°)	1148.8	21.1			G1/1800
FVH (80°-90°)	119.6	2.2			G2/225
BL (0°-30°)	271.9	5.0	B1/500		
BM (30°-60°)	1165.5	21.4	B2/2500		
BH (60°-80°)	1061.1	19.5	B3/2500		G3/2500
BVH (80°-90°)	128.8	2.4			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 II Short





REPORT NUMBER: P472252
 CATALOG NUMBER: CCW-VA-4-840-U-T2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	504.4	504.4	504.4	504.4	504.4	504.4	504.4	504.4	504.4	504.4	504.4
2.5°	506.3	506.3	506.3	506.3	508.2	508.2	508.2	508.2	508.2	506.3	506.3
5°	510.2	510.2	510.2	510.2	512.1	512.1	512.1	512.1	514.0	514.0	514.0
7.5°	514.0	514.0	515.9	515.9	517.9	517.9	519.8	519.8	521.7	523.6	523.6
10°	521.7	521.7	523.6	523.6	527.5	529.4	531.3	531.3	535.2	535.2	535.2
12.5°	531.3	533.3	535.2	537.1	541.0	542.9	544.8	546.8	548.7	550.6	550.6
15°	546.8	544.8	548.7	552.5	554.5	558.3	560.2	562.2	566.0	569.9	569.9
17.5°	558.3	560.2	562.2	566.0	569.9	575.6	579.5	583.3	587.2	591.0	591.0
20°	573.7	571.8	579.5	585.3	589.1	596.8	602.6	610.3	614.1	618.0	619.9
22.5°	587.2	589.1	593.0	600.7	608.4	619.9	631.5	637.2	643.0	646.9	652.6
25°	604.5	606.4	612.2	619.9	631.5	644.9	658.4	666.1	671.9	679.6	685.4
27.5°	621.8	621.8	631.5	643.0	656.5	673.8	689.2	696.9	706.5	716.2	720.0
30°	641.1	641.1	650.7	666.1	685.4	704.6	718.1	733.5	747.0	756.6	764.3
32.5°	670.0	670.0	681.5	696.9	718.1	741.2	760.4	775.8	793.2	810.5	825.9
35°	702.7	704.6	720.0	739.3	764.3	793.2	810.5	831.7	850.9	879.8	895.2
37.5°	754.7	756.6	773.9	798.9	824.0	854.8	883.7	908.7	937.6	970.3	981.8
40°	831.7	837.5	854.8	866.3	889.4	912.5	954.9	997.2	1047.3	1091.6	1099.3
42.5°	970.3	964.5	953.0	949.1	954.9	979.9	1026.1	1091.6	1180.1	1236.0	1236.0
45°	1024.2	1024.2	1026.1	1022.3	1018.4	1035.7	1089.6	1193.6	1318.7	1395.8	1411.2
47.5°	1033.8	1035.7	1053.1	1068.5	1072.3	1091.6	1157.0	1293.7	1461.2	1574.8	1584.4
50°	1033.8	1037.7	1060.8	1087.7	1107.0	1133.9	1214.8	1382.3	1601.7	1732.7	1757.7
52.5°	1030.0	1033.8	1058.8	1091.6	1122.4	1160.9	1264.8	1474.7	1726.9	1904.0	1915.6
55°	1020.3	1024.2	1055.0	1089.6	1124.3	1176.3	1305.3	1553.6	1848.2	2046.5	2067.6
57.5°	1008.8	1014.6	1047.3	1083.9	1116.6	1180.1	1332.2	1615.2	1946.4	2173.5	2212.0
60°	985.7	995.3	1031.9	1068.5	1099.3	1166.7	1345.7	1663.4	2019.5	2265.9	2304.4
62.5°	939.5	949.1	989.5	1030.0	1060.8	1133.9	1338.0	1686.5	2061.9	2323.7	2364.1
65°	881.7	885.6	929.9	972.2	1003.0	1080.0	1305.3	1682.6	2071.5	2342.9	2389.1
66°	852.9	854.8	906.8	947.2	972.2	1056.9	1286.0	1669.1	2065.7	2341.0	2389.1
67.5°	800.9	810.5	854.8	897.1	926.0	1004.9	1239.8	1638.3	2042.6	2321.8	2371.8
70°	710.4	718.1	754.7	797.0	827.8	902.9	1139.7	1547.8	1957.9	2242.8	2300.6
72.5°	612.2	618.0	656.5	687.3	706.5	787.4	1018.4	1399.6	1809.7	2094.6	2150.4
75°	508.2	512.1	546.8	567.9	585.3	656.5	856.7	1209.0	1576.7	1853.9	1927.1
77.5°	400.4	402.4	431.2	450.5	450.5	512.1	679.6	979.9	1293.7	1549.8	1603.7
80°	294.6	292.6	310.0	319.6	325.4	365.8	489.0	720.0	985.7	1185.9	1237.9
82.5°	192.5	190.6	202.1	206.0	206.0	231.0	308.0	456.3	646.9	804.7	835.5
85°	102.0	105.9	104.0	104.0	104.0	113.6	154.0	238.7	344.6	431.2	452.4
87.5°	17.3	17.3	17.3	19.3	23.1	30.8	40.4	67.4	98.2	132.8	150.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P472252
 CATALOG NUMBER: CCW-VA-4-840-U-T2

CANDELA DISTRIBUTION (continued):

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	504.4	504.4	504.4	504.4	504.4	504.4	504.4	504.4	504.4	504.4	504.4
2.5°	506.3	508.2	508.2	508.2	508.2	508.2	508.2	508.2	508.2	508.2	508.2
5°	514.0	514.0	514.0	515.9	515.9	515.9	515.9	515.9	515.9	515.9	515.9
7.5°	523.6	523.6	525.6	525.6	525.6	527.5	527.5	525.6	525.6	525.6	525.6
10°	535.2	535.2	537.1	539.0	539.0	541.0	541.0	539.0	539.0	537.1	537.1
12.5°	550.6	552.5	554.5	556.4	558.3	558.3	556.4	554.5	552.5	550.6	550.6
15°	569.9	571.8	573.7	577.6	577.6	577.6	575.6	573.7	569.9	567.9	569.9
17.5°	593.0	594.9	598.7	600.7	602.6	600.7	600.7	598.7	598.7	596.8	596.8
20°	621.8	623.8	629.5	631.5	631.5	633.4	639.2	643.0	648.8	650.7	650.7
22.5°	650.7	654.6	660.3	668.0	671.9	679.6	681.5	685.4	683.4	677.7	677.7
25°	685.4	689.2	700.8	710.4	718.1	721.9	718.1	712.3	702.7	695.0	693.1
27.5°	721.9	727.7	745.0	758.5	762.4	758.5	743.1	729.6	718.1	708.5	704.6
30°	768.1	777.8	797.0	804.7	802.8	787.4	764.3	747.0	729.6	718.1	716.2
32.5°	825.9	835.5	852.9	854.8	843.2	814.3	783.5	760.4	739.3	725.8	723.9
35°	895.2	904.8	914.5	908.7	876.0	839.4	800.9	768.1	747.0	731.6	731.6
37.5°	983.8	989.5	989.5	960.7	910.6	862.5	814.3	775.8	752.7	737.3	735.4
40°	1099.3	1097.4	1070.4	1014.6	949.1	883.7	824.0	783.5	754.7	739.3	737.3
42.5°	1237.9	1224.4	1166.7	1076.2	985.7	902.9	835.5	785.5	752.7	737.3	735.4
45°	1407.3	1384.2	1280.2	1147.4	1024.2	920.2	841.3	783.5	747.0	729.6	727.7
47.5°	1574.8	1561.3	1418.9	1222.5	1062.7	939.5	845.2	777.8	735.4	710.4	710.4
50°	1751.9	1719.2	1557.5	1313.0	1103.1	953.0	845.2	768.1	716.2	689.2	685.4
52.5°	1923.3	1890.5	1698.0	1403.5	1147.4	966.4	841.3	754.7	698.8	670.0	666.1
55°	2069.6	2042.6	1834.7	1505.5	1193.6	976.1	835.5	739.3	681.5	654.6	650.7
57.5°	2204.3	2177.4	1954.1	1592.1	1237.9	981.8	822.1	720.0	660.3	633.4	631.5
60°	2302.5	2281.3	2056.1	1673.0	1274.5	981.8	802.8	696.9	637.2	610.3	608.4
62.5°	2368.0	2346.8	2129.2	1726.9	1297.6	968.4	773.9	666.1	608.4	583.3	577.6
65°	2393.0	2373.7	2162.0	1748.1	1293.7	941.4	735.4	627.6	571.8	546.8	542.9
66°	2394.9	2373.7	2162.0	1744.2	1284.1	926.0	718.1	610.3	556.4	531.3	527.5
67.5°	2379.5	2360.3	2148.5	1725.0	1257.1	897.1	683.4	581.4	527.5	502.5	500.5
70°	2308.3	2292.9	2075.3	1651.8	1193.6	833.6	625.7	525.6	473.6	456.3	450.5
72.5°	2154.3	2136.9	1929.0	1515.1	1089.6	747.0	552.5	460.1	417.8	396.6	394.7
75°	1915.6	1907.8	1705.7	1334.1	939.5	643.0	467.8	388.9	354.2	338.8	338.8
77.5°	1603.7	1588.3	1416.9	1103.1	772.0	519.8	375.4	315.7	288.8	275.3	277.2
80°	1247.5	1236.0	1091.6	827.8	583.3	390.8	281.1	240.6	221.4	213.7	209.8
82.5°	854.8	824.0	727.7	548.7	379.3	263.7	194.4	167.5	157.9	155.9	154.0
85°	444.7	456.3	383.1	290.7	206.0	146.3	117.4	107.8	104.0	105.9	105.9
87.5°	146.3	150.2	115.5	88.6	67.4	52.0	44.3	42.4	36.6	40.4	42.4
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)