

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: P472240

Luminaire Tested: **CCW-VA-4-827-U-T2**

Issue Date: 01/27/2021

Test Information

Test Method: LM-79-08
Report Number: P472240
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-VA-4-827-U-T2
Description: INVUE WALL PACK Wave Stream LUMINAIRE WITH T2 DISTRIBUTION LENS
Light Source: 2700K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4993.9 lumens
Efficiency: N/A
Efficacy: 77.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.54' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

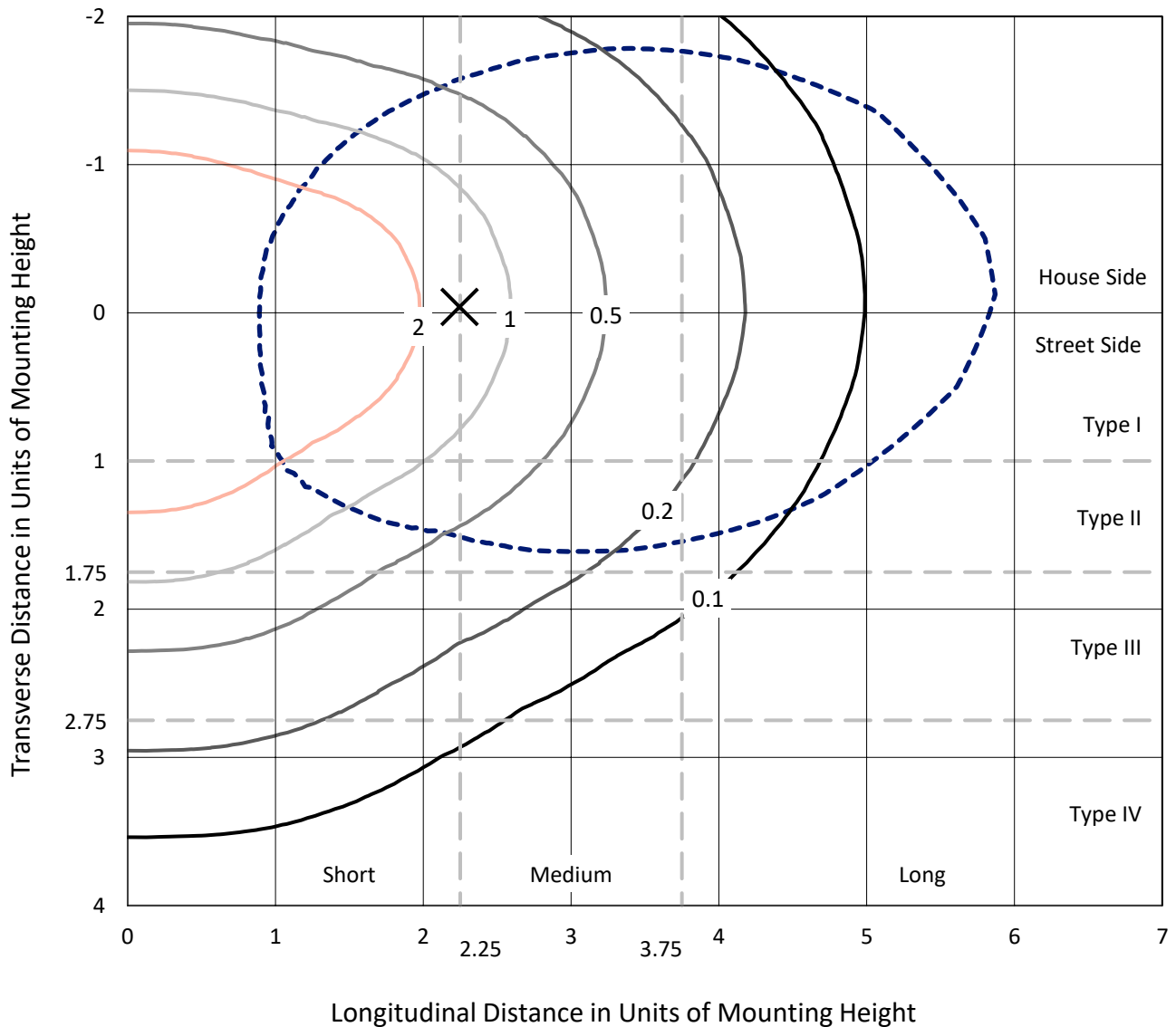
Input Watts (W): 64.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

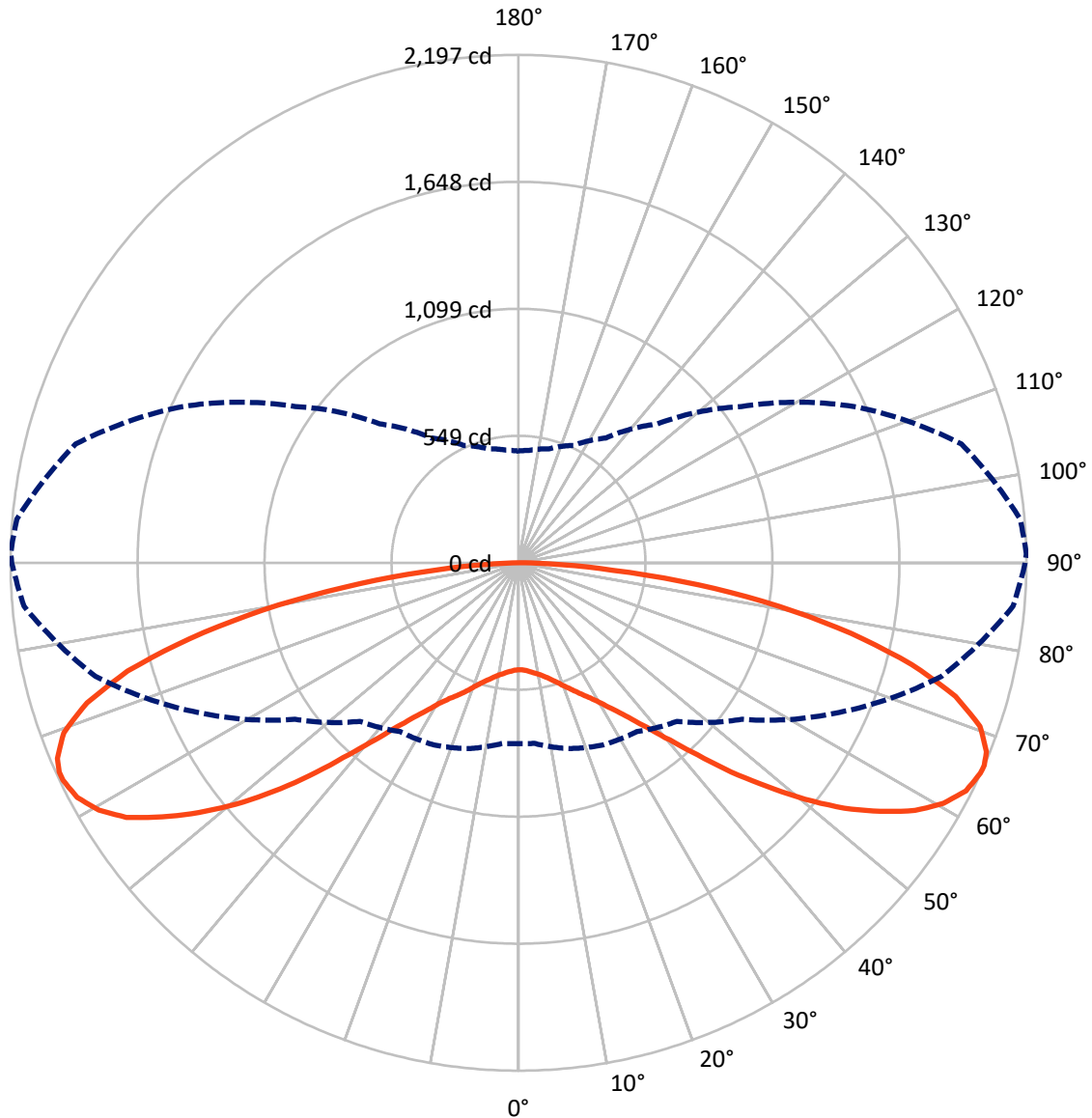
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.9 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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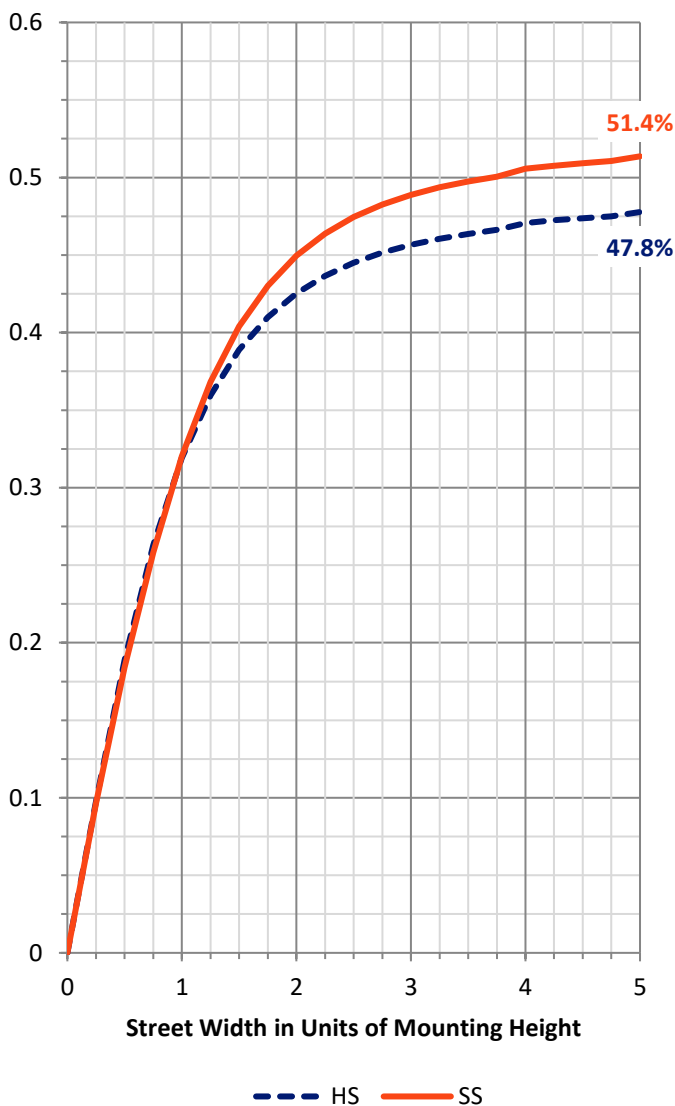
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2410.3	0.0	2410.3
	% Fixture	48.3	0.0	48.3
Street Side	Lumens	2583.6	0.0	2583.6
	% Fixture	51.7	0.0	51.7
Total	Lumens	4993.9	0.0	4993.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.6	0.9
10°-20°	149.1	3.0
20°-30°	288.3	5.8
30°-40°	473.1	9.5
40°-50°	749.3	15.0
50°-60°	1033.2	20.7
60°-70°	1160.3	23.2
70°-80°	867.2	17.4
80°-90°	227.9	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°	4993.9	100.0
0°-180°	4993.9	100.0

Coefficient of Utilization

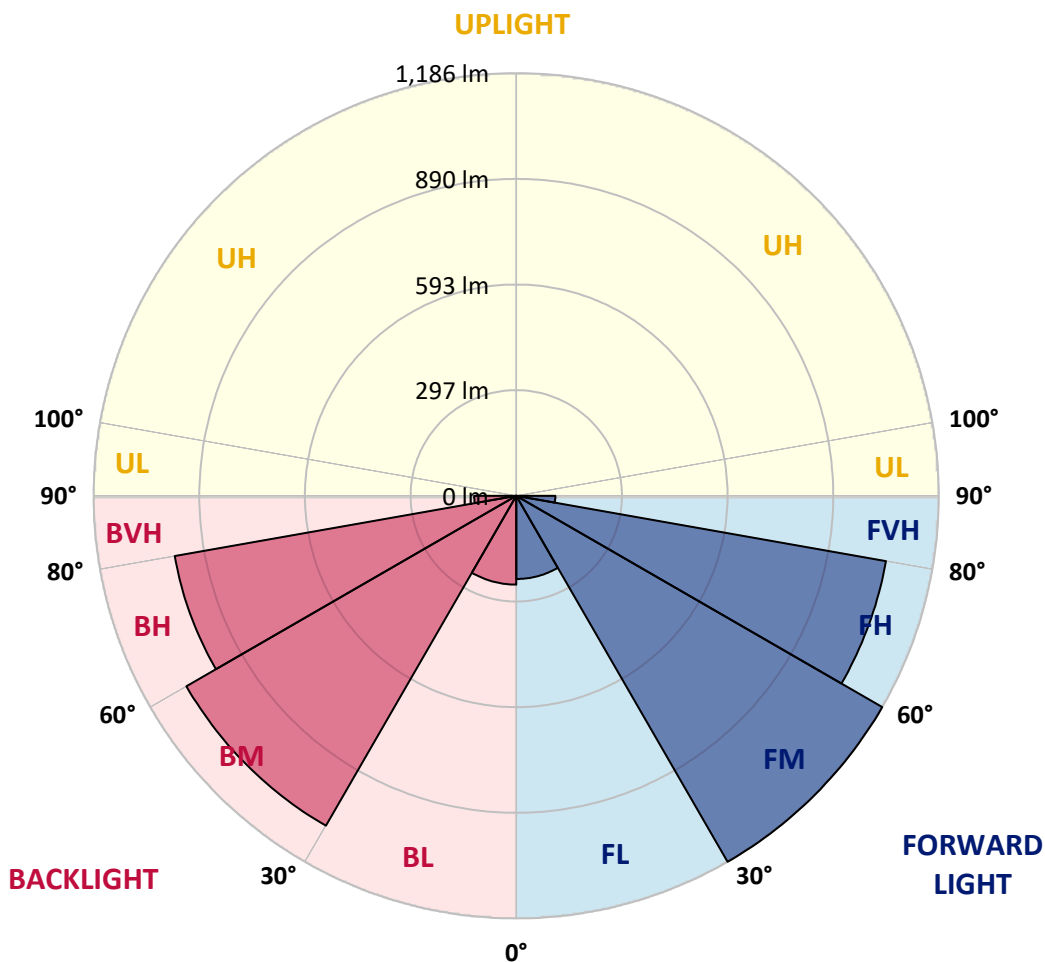


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	233.5	4.7			
FM (30°-60°)	1186.4	23.8			
FH (60°-80°)	1054.0	21.1			G1/1800
FVH (80°-90°)	109.7	2.2			G2/225
BL (0°-30°)	249.5	5.0	B1/500		
BM (30°-60°)	1069.2	21.4	B2/2500		
BH (60°-80°)	973.5	19.5	B2/1000		G2/1000
BVH (80°-90°)	118.1	2.4			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2
 Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	462.7	462.7	462.7	462.7	462.7	462.7	462.7	462.7	462.7	462.7	462.7
2.5°	464.5	464.5	464.5	464.5	466.3	466.3	466.3	466.3	466.3	464.5	464.5
5°	468.0	468.0	468.0	468.0	469.8	469.8	469.8	469.8	471.6	471.6	471.6
7.5°	471.6	471.6	473.3	473.3	475.1	475.1	476.9	476.9	478.6	480.4	480.4
10°	478.6	478.6	480.4	480.4	483.9	485.7	487.5	487.5	491.0	491.0	491.0
12.5°	487.5	489.2	491.0	492.8	496.3	498.1	499.8	501.6	503.4	505.1	505.1
15°	501.6	499.8	503.4	506.9	508.7	512.2	514.0	515.7	519.3	522.8	522.8
17.5°	512.2	514.0	515.7	519.3	522.8	528.1	531.6	535.1	538.7	542.2	542.2
20°	526.3	524.6	531.6	536.9	540.4	547.5	552.8	559.9	563.4	566.9	568.7
22.5°	538.7	540.4	544.0	551.0	558.1	568.7	579.3	584.6	589.9	593.4	598.7
25°	554.6	556.3	561.6	568.7	579.3	591.7	604.0	611.1	616.4	623.5	628.8
27.5°	570.5	570.5	579.3	589.9	602.3	618.2	632.3	639.4	648.2	657.0	660.5
30°	588.1	588.1	597.0	611.1	628.8	646.4	658.8	672.9	685.3	694.1	701.2
32.5°	614.6	614.6	625.2	639.4	658.8	680.0	697.6	711.8	727.7	743.6	757.7
35°	644.7	646.4	660.5	678.2	701.2	727.7	743.6	763.0	780.6	807.1	821.3
37.5°	692.3	694.1	710.0	733.0	755.9	784.2	810.7	833.6	860.1	890.1	900.7
40°	763.0	768.3	784.2	794.8	816.0	837.2	876.0	914.9	960.8	1001.4	1008.5
42.5°	890.1	884.9	874.3	870.7	876.0	899.0	941.4	1001.4	1082.7	1133.9	1133.9
45°	939.6	939.6	941.4	937.8	934.3	950.2	999.7	1095.0	1209.8	1280.5	1294.6
47.5°	948.4	950.2	966.1	980.2	983.8	1001.4	1061.5	1186.9	1340.5	1444.7	1453.6
50°	948.4	952.0	973.2	997.9	1015.5	1040.3	1114.5	1268.1	1469.5	1589.6	1612.5
52.5°	944.9	948.4	971.4	1001.4	1029.7	1065.0	1160.4	1352.9	1584.3	1746.7	1757.3
55°	936.1	939.6	967.9	999.7	1031.4	1079.1	1197.5	1425.3	1695.5	1877.4	1896.9
57.5°	925.5	930.8	960.8	994.4	1024.4	1082.7	1222.2	1481.8	1785.6	1994.0	2029.3
60°	904.3	913.1	946.7	980.2	1008.5	1070.3	1234.6	1526.0	1852.7	2078.8	2114.1
62.5°	861.9	870.7	907.8	944.9	973.2	1040.3	1227.5	1547.2	1891.6	2131.8	2168.9
65°	808.9	812.4	853.1	891.9	920.2	990.8	1197.5	1543.6	1900.4	2149.4	2191.8
66°	782.4	784.2	831.9	869.0	891.9	969.6	1179.8	1531.3	1895.1	2147.7	2191.8
67.5°	734.7	743.6	784.2	823.0	849.5	921.9	1137.4	1503.0	1873.9	2130.0	2175.9
70°	651.7	658.8	692.3	731.2	759.5	828.3	1045.6	1420.0	1796.2	2057.6	2110.6
72.5°	561.6	566.9	602.3	630.5	648.2	722.4	934.3	1284.0	1660.2	1921.6	1972.8
75°	466.3	469.8	501.6	521.0	536.9	602.3	785.9	1109.2	1446.5	1700.8	1767.9
77.5°	367.4	369.1	395.6	413.3	413.3	469.8	623.5	899.0	1186.9	1421.8	1471.2
80°	270.2	268.5	284.4	293.2	298.5	335.6	448.6	660.5	904.3	1088.0	1135.6
82.5°	176.6	174.9	185.4	189.0	189.0	211.9	282.6	418.6	593.4	738.3	766.5
85°	93.6	97.1	95.4	95.4	95.4	104.2	141.3	219.0	316.1	395.6	415.1
87.5°	15.9	15.9	15.9	17.7	21.2	28.3	37.1	61.8	90.1	121.9	137.8
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):

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	462.7	462.7	462.7	462.7	462.7	462.7	462.7	462.7	462.7	462.7	462.7
2.5°	464.5	466.3	466.3	466.3	466.3	466.3	466.3	466.3	466.3	466.3	466.3
5°	471.6	471.6	471.6	473.3	473.3	473.3	473.3	473.3	473.3	473.3	473.3
7.5°	480.4	480.4	482.2	482.2	482.2	483.9	483.9	482.2	482.2	482.2	482.2
10°	491.0	491.0	492.8	494.5	494.5	496.3	496.3	494.5	494.5	492.8	492.8
12.5°	505.1	506.9	508.7	510.4	512.2	512.2	510.4	508.7	506.9	505.1	505.1
15°	522.8	524.6	526.3	529.9	529.9	529.9	528.1	526.3	522.8	521.0	522.8
17.5°	544.0	545.7	549.3	551.0	552.8	551.0	551.0	549.3	549.3	547.5	547.5
20°	570.5	572.2	577.5	579.3	579.3	581.1	586.4	589.9	595.2	597.0	597.0
22.5°	597.0	600.5	605.8	612.9	616.4	623.5	625.2	628.8	627.0	621.7	621.7
25°	628.8	632.3	642.9	651.7	658.8	662.3	658.8	653.5	644.7	637.6	635.8
27.5°	662.3	667.6	683.5	695.9	699.4	695.9	681.7	669.4	658.8	650.0	646.4
30°	704.7	713.5	731.2	738.3	736.5	722.4	701.2	685.3	669.4	658.8	657.0
32.5°	757.7	766.5	782.4	784.2	773.6	747.1	718.8	697.6	678.2	665.8	664.1
35°	821.3	830.1	838.9	833.6	803.6	770.1	734.7	704.7	685.3	671.1	671.1
37.5°	902.5	907.8	907.8	881.3	835.4	791.2	747.1	711.8	690.6	676.4	674.7
40°	1008.5	1006.7	982.0	930.8	870.7	810.7	755.9	718.8	692.3	678.2	676.4
42.5°	1135.6	1123.3	1070.3	987.3	904.3	828.3	766.5	720.6	690.6	676.4	674.7
45°	1291.1	1269.9	1174.5	1052.6	939.6	844.2	771.8	718.8	685.3	669.4	667.6
47.5°	1444.7	1432.4	1301.7	1121.5	974.9	861.9	775.3	713.5	674.7	651.7	651.7
50°	1607.2	1577.2	1428.8	1204.5	1012.0	874.3	775.3	704.7	657.0	632.3	628.8
52.5°	1764.4	1734.4	1557.8	1287.5	1052.6	886.6	771.8	692.3	641.1	614.6	611.1
55°	1898.6	1873.9	1683.2	1381.1	1095.0	895.4	766.5	678.2	625.2	600.5	597.0
57.5°	2022.3	1997.5	1792.7	1460.6	1135.6	900.7	754.2	660.5	605.8	581.1	579.3
60°	2112.3	2092.9	1886.3	1534.8	1169.2	900.7	736.5	639.4	584.6	559.9	558.1
62.5°	2172.4	2153.0	1953.4	1584.3	1190.4	888.4	710.0	611.1	558.1	535.1	529.9
65°	2195.3	2177.7	1983.4	1603.7	1186.9	863.7	674.7	575.8	524.6	501.6	498.1
66°	2197.1	2177.7	1983.4	1600.2	1178.0	849.5	658.8	559.9	510.4	487.5	483.9
67.5°	2183.0	2165.3	1971.0	1582.5	1153.3	823.0	627.0	533.4	483.9	461.0	459.2
70°	2117.6	2103.5	1903.9	1515.4	1095.0	764.8	574.0	482.2	434.5	418.6	413.3
72.5°	1976.3	1960.4	1769.7	1390.0	999.7	685.3	506.9	422.1	383.3	363.8	362.1
75°	1757.3	1750.3	1564.8	1224.0	861.9	589.9	429.2	356.8	325.0	310.8	310.8
77.5°	1471.2	1457.1	1299.9	1012.0	708.2	476.9	344.4	289.7	264.9	252.6	254.3
80°	1144.5	1133.9	1001.4	759.5	535.1	358.5	257.9	220.8	203.1	196.0	192.5
82.5°	784.2	755.9	667.6	503.4	347.9	242.0	178.4	153.7	144.8	143.1	141.3
85°	408.0	418.6	351.5	266.7	189.0	134.2	107.7	98.9	95.4	97.1	97.1
87.5°	134.2	137.8	106.0	81.2	61.8	47.7	40.6	38.9	33.6	37.1	38.9
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)