

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: P472204

Luminaire Tested: **CCW-VA-4-850-U-T4W**

Issue Date: 01/27/2021

Test Information

Test Method: LM-79-08
Report Number: P472204
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-VA-4-850-U-T4W
Description: INVUE WALL PACK Wave Stream LUMINAIRE WITH T4W DISTRIBUTION LENS
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6145.6 lumens
Efficiency: N/A
Efficacy: 106.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.54' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G2

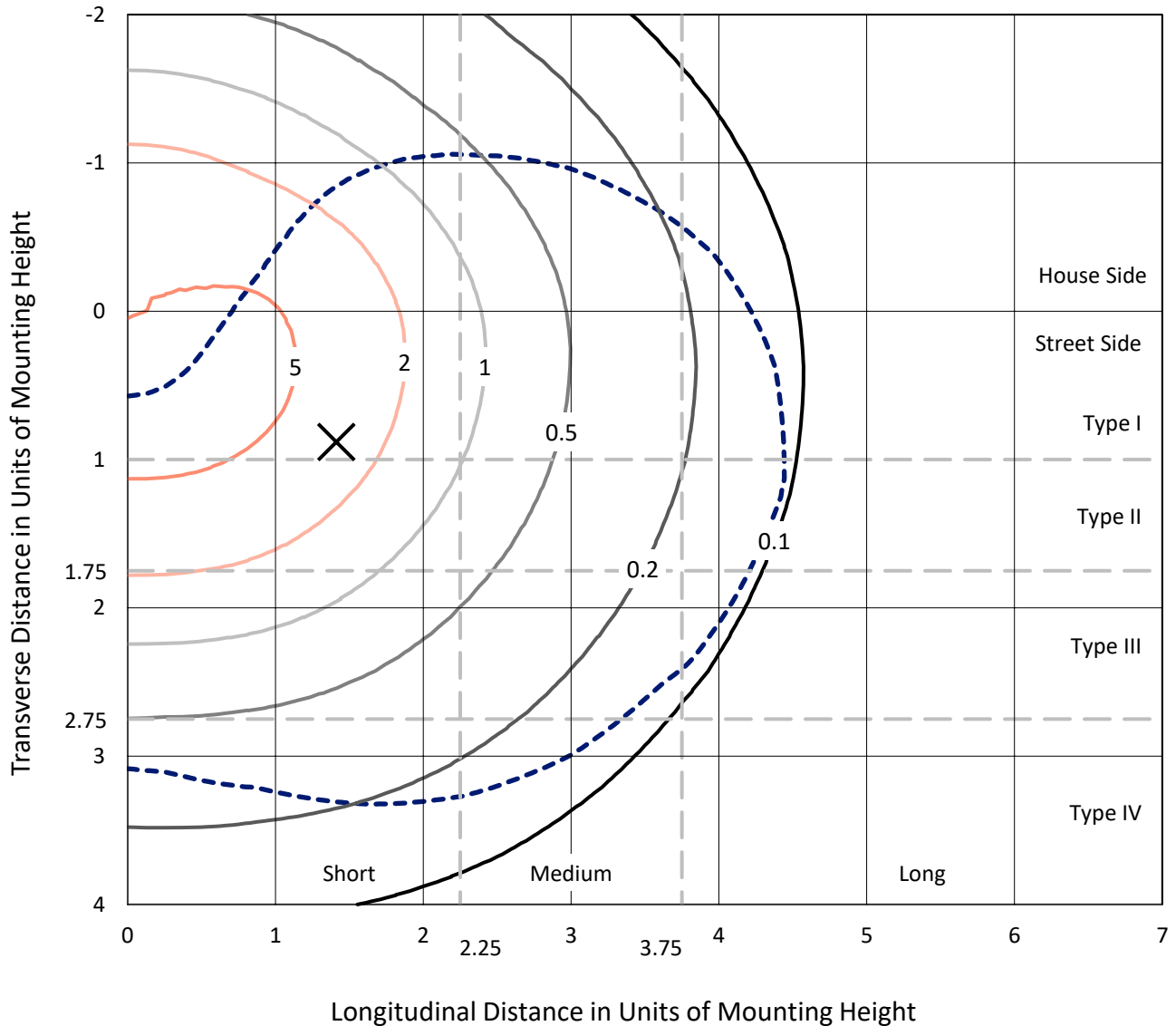
Input Watts (W): 57.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

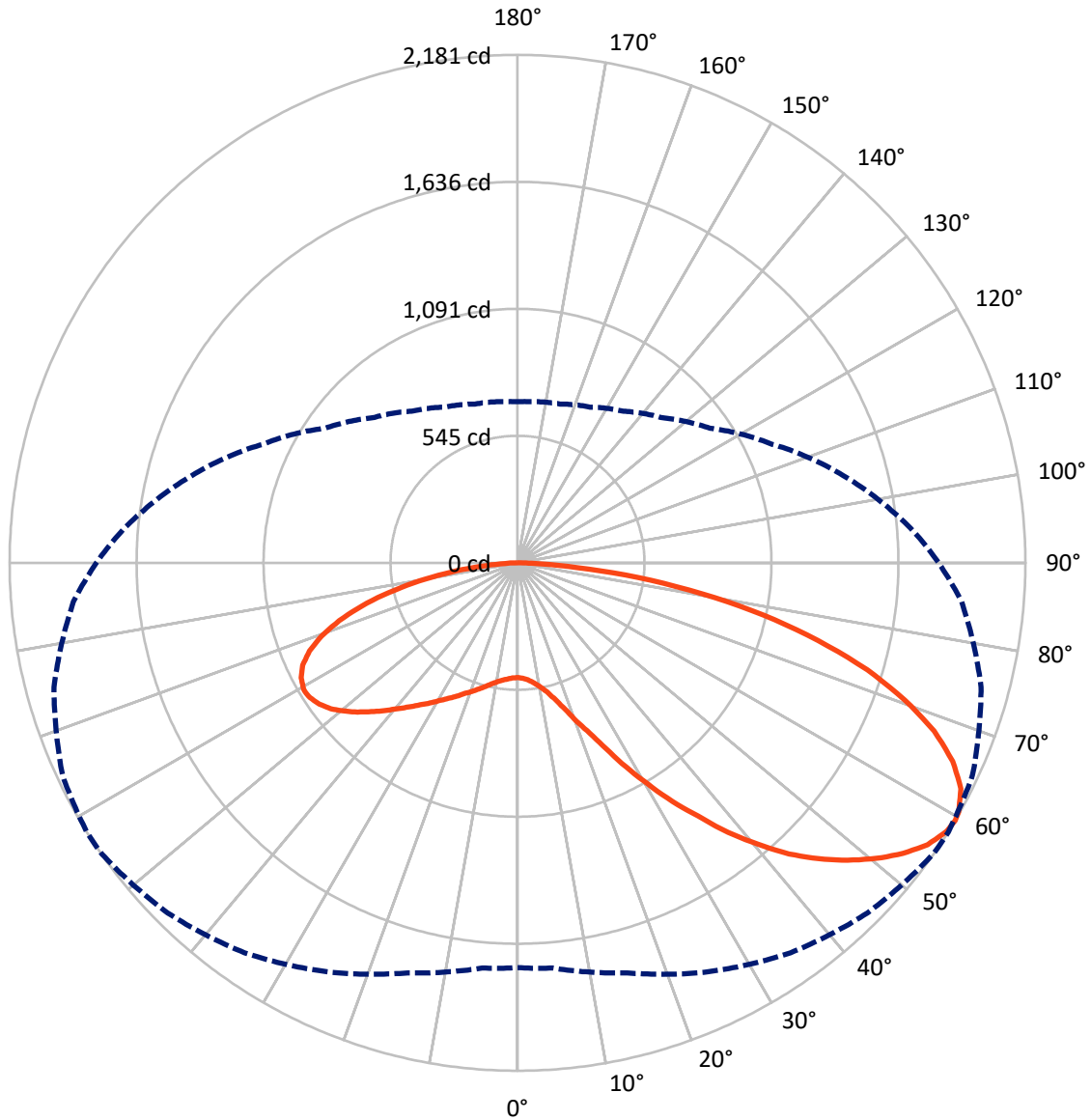
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.5 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 59-Deg Vertical

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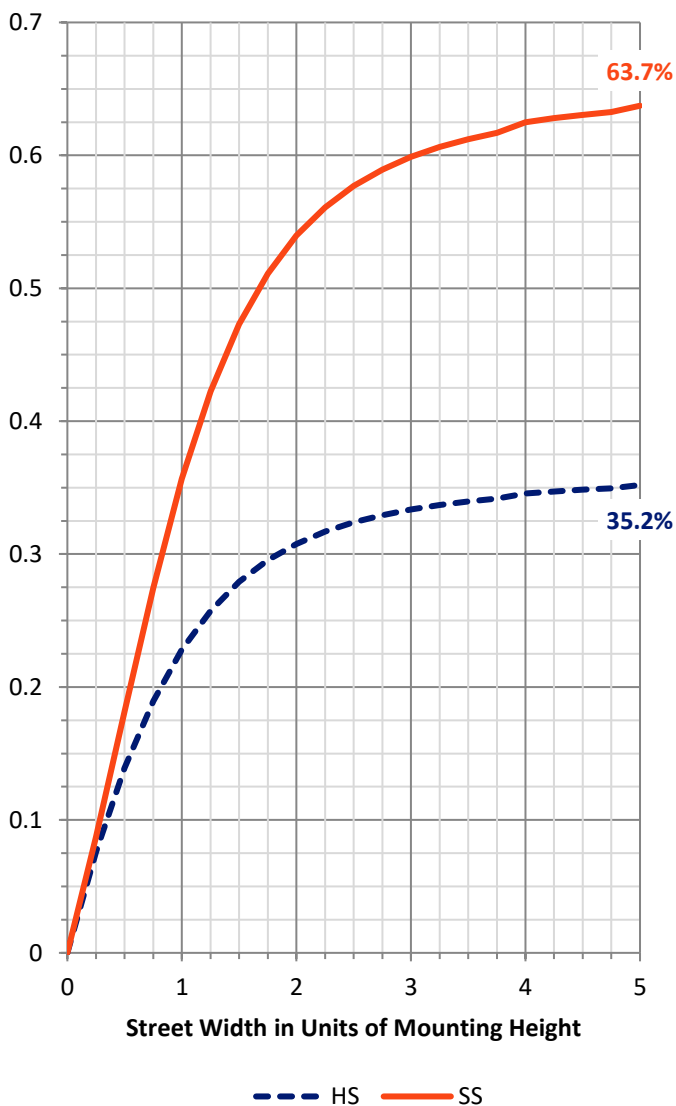
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2191.7	0.0	2191.7
	% Fixture	35.7	0.0	35.7
Street Side	Lumens	3953.8	0.0	3953.8
	% Fixture	64.3	0.0	64.3
Total	Lumens	6145.6	0.0	6145.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.9	0.8
10°-20°	166.7	2.7
20°-30°	351.8	5.7
30°-40°	647.5	10.5
40°-50°	1009.3	16.4
50°-60°	1326.2	21.6
60°-70°	1389.7	22.6
70°-80°	963.5	15.7
80°-90°	241.9	3.9
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°	6145.6	100.0
0°-180°	6145.6	100.0

Coefficient of Utilization



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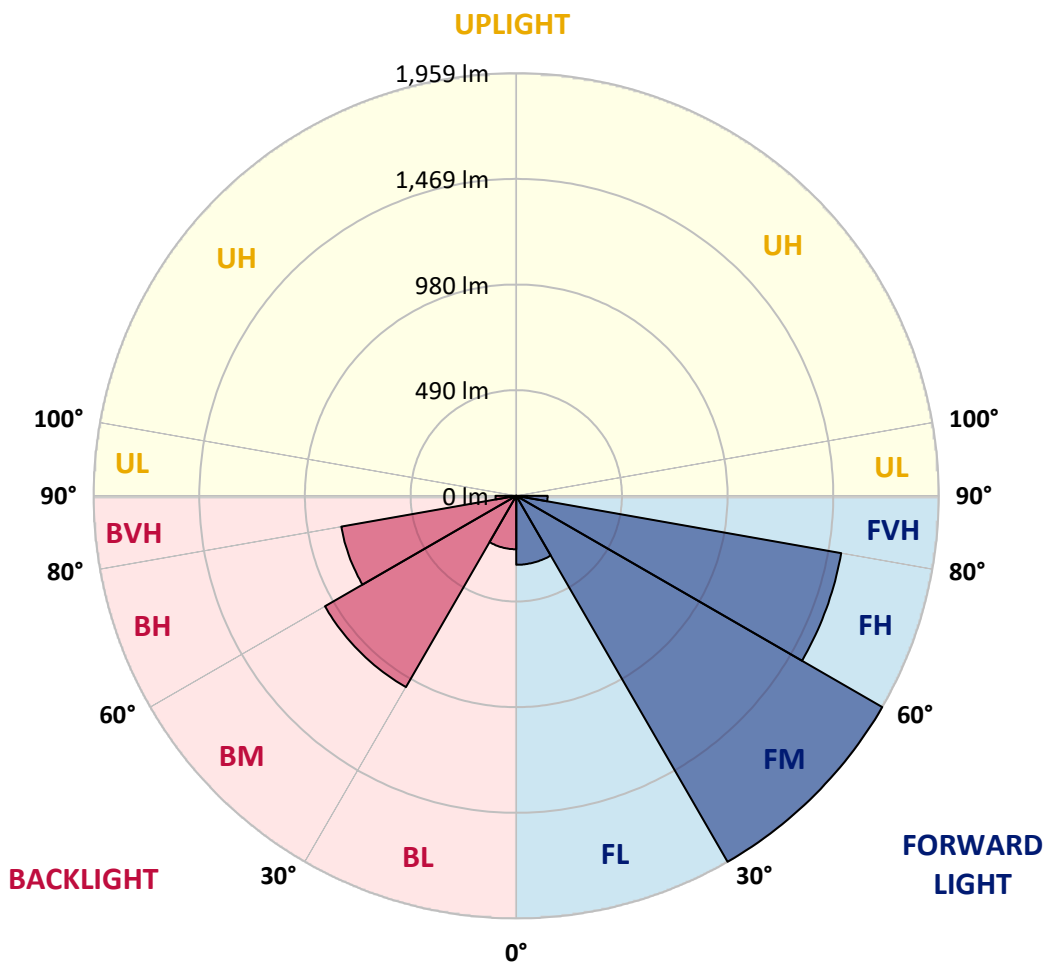
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	319.7	5.2			
FM (30°-60°)	1959.1	31.9			
FH (60°-80°)	1529.7	24.9			G1/1800
FVH (80°-90°)	145.4	2.4			G2/225
BL (0°-30°)	247.7	4.0	B1/500		
BM (30°-60°)	1024.0	16.7	B2/2500		
BH (60°-80°)	823.5	13.4	B2/1000		G2/1000
BVH (80°-90°)	96.6	1.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	492.7	492.7	492.7	492.7	492.7	492.7	492.7	492.7	492.7	492.7	492.7
2.5°	499.6	499.6	499.6	498.2	498.2	498.2	496.8	496.8	496.8	495.4	494.0
5°	510.7	510.7	509.3	510.7	509.3	507.9	506.5	506.5	506.5	505.1	503.7
7.5°	525.9	527.3	525.9	527.3	525.9	524.5	521.7	521.7	520.3	517.6	514.8
10°	549.4	549.4	549.4	548.0	546.6	545.3	543.9	542.5	541.1	536.9	532.8
12.5°	578.5	578.5	578.5	575.7	575.7	572.9	571.5	570.2	567.4	561.9	556.3
15°	614.4	613.1	617.2	617.2	615.8	615.8	611.7	608.9	606.1	597.8	585.4
17.5°	662.9	661.5	665.6	668.4	668.4	669.8	662.9	660.1	650.4	639.4	622.7
20°	727.9	725.2	729.3	732.1	729.3	732.1	725.2	726.5	712.7	693.3	667.0
22.5°	798.5	798.5	802.7	802.7	804.0	806.8	798.5	794.4	783.3	755.6	722.4
25°	885.7	892.6	892.6	892.6	898.1	899.5	891.2	884.3	869.1	831.7	786.0
27.5°	992.2	990.9	989.5	997.8	997.8	1000.5	995.0	992.2	974.3	928.6	859.4
30°	1105.7	1097.4	1103.0	1105.7	1111.3	1115.4	1109.9	1101.6	1079.4	1029.6	943.8
32.5°	1209.5	1215.1	1223.4	1226.1	1234.4	1235.8	1222.0	1222.0	1199.8	1136.2	1047.6
35°	1327.1	1327.1	1349.3	1359.0	1359.0	1367.3	1346.5	1335.5	1320.2	1253.8	1141.7
37.5°	1429.6	1432.3	1450.3	1472.5	1475.2	1487.7	1472.5	1468.3	1440.6	1372.8	1248.3
40°	1525.0	1527.8	1550.0	1576.2	1591.5	1610.8	1595.6	1588.7	1559.6	1482.1	1354.8
42.5°	1599.8	1605.3	1633.0	1671.7	1696.6	1720.2	1713.3	1709.1	1669.0	1587.3	1453.1
45°	1656.5	1666.2	1704.9	1750.6	1785.2	1819.8	1821.2	1812.9	1775.5	1684.2	1548.6
47.5°	1702.2	1713.3	1756.2	1814.3	1866.9	1909.8	1918.1	1908.4	1873.8	1778.3	1634.4
50°	1739.5	1745.1	1793.5	1868.2	1933.3	1987.3	2003.9	1995.6	1965.1	1857.2	1709.1
52.5°	1758.9	1767.2	1822.6	1908.4	1987.3	2052.3	2077.2	2073.1	2037.1	1929.1	1775.5
55°	1768.6	1776.9	1842.0	1940.2	2028.8	2104.9	2135.3	2136.7	2102.1	1994.2	1837.8
57.5°	1757.5	1768.6	1839.2	1948.5	2046.8	2128.4	2175.5	2174.1	2146.4	2044.0	1890.4
59°	1738.2	1746.5	1822.6	1937.4	2044.0	2125.6	2179.6	2181.0	2156.1	2060.6	1913.9
60°	1716.0	1725.7	1803.2	1923.6	2032.9	2116.0	2172.7	2175.5	2154.7	2064.8	1923.6
62.5°	1639.9	1652.4	1738.2	1866.9	1985.9	2064.8	2132.6	2136.7	2125.6	2053.7	1930.5
65°	1533.3	1544.4	1637.1	1774.1	1898.7	1980.3	2044.0	2053.7	2052.3	2003.9	1902.8
67.5°	1403.3	1404.6	1491.8	1641.3	1771.4	1851.6	1912.5	1929.1	1941.6	1909.8	1821.2
70°	1246.9	1245.5	1329.9	1478.0	1608.1	1692.5	1753.4	1764.5	1796.3	1771.4	1699.4
72.5°	1053.1	1069.7	1148.6	1273.2	1401.9	1496.0	1550.0	1570.7	1588.7	1594.2	1534.7
75°	870.5	888.5	950.7	1067.0	1177.7	1264.9	1323.0	1332.7	1365.9	1374.2	1318.8
77.5°	696.1	697.5	743.1	835.9	936.9	1008.9	1055.9	1080.8	1098.8	1115.4	1057.3
80°	488.5	495.4	527.3	593.7	672.6	748.7	787.4	804.0	816.5	827.6	808.2
82.5°	305.8	308.6	329.4	369.5	423.5	466.4	506.5	520.3	523.1	548.0	545.3
85°	145.3	146.7	160.5	179.9	203.4	238.0	253.3	253.3	272.6	290.6	290.6
87.5°	19.4	19.4	23.5	26.3	33.2	42.9	59.5	60.9	72.0	80.3	87.2
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	492.7	492.7	492.7	492.7	492.7	492.7	492.7	492.7	492.7	492.7	492.7
2.5°	494.0	494.0	494.0	494.0	494.0	492.7	494.0	494.0	494.0	494.0	494.0
5°	503.7	502.4	501.0	499.6	499.6	498.2	498.2	498.2	498.2	498.2	498.2
7.5°	513.4	512.0	510.7	507.9	506.5	505.1	505.1	503.7	503.7	503.7	503.7
10°	530.0	528.6	523.1	519.0	516.2	514.8	513.4	512.0	510.7	510.7	510.7
12.5°	552.2	549.4	539.7	534.2	530.0	527.3	524.5	523.1	521.7	520.3	520.3
15°	579.8	572.9	560.5	552.2	546.6	542.5	538.3	535.6	534.2	532.8	532.8
17.5°	613.1	604.8	588.2	572.9	563.2	556.3	550.8	546.6	545.3	545.3	545.3
20°	654.6	640.7	617.2	596.5	581.2	571.5	563.2	559.1	557.7	556.3	554.9
22.5°	703.0	685.0	650.4	618.6	599.2	585.4	575.7	570.2	566.0	564.6	564.6
25°	758.4	732.1	686.4	647.7	621.4	602.0	589.5	582.6	575.7	572.9	572.9
27.5°	824.8	790.2	729.3	678.1	642.1	618.6	604.8	595.1	588.2	582.6	579.8
30°	896.8	858.0	776.4	711.3	665.6	639.4	622.7	611.7	602.0	592.3	590.9
32.5°	988.1	932.7	833.1	748.7	693.3	660.1	640.7	626.9	614.4	604.8	602.0
35°	1080.8	1014.4	892.6	787.4	719.6	679.5	656.0	640.7	628.3	617.2	615.8
37.5°	1176.3	1105.7	957.6	833.1	750.1	701.6	672.6	656.0	640.7	629.7	628.3
40°	1275.9	1192.9	1024.1	880.2	781.9	723.8	690.6	669.8	653.2	643.5	642.1
42.5°	1370.0	1280.1	1096.0	935.5	819.3	747.3	708.5	686.4	665.6	656.0	654.6
45°	1460.0	1363.1	1168.0	986.7	856.6	772.2	726.5	700.2	678.1	668.4	667.0
47.5°	1541.6	1444.8	1234.4	1042.1	895.4	799.9	745.9	714.1	689.2	679.5	679.5
50°	1615.0	1514.0	1299.5	1093.3	931.4	827.6	762.5	726.5	701.6	691.9	690.6
52.5°	1684.2	1574.9	1356.2	1137.6	966.0	852.5	779.1	736.2	709.9	698.9	697.5
55°	1739.5	1630.2	1403.3	1173.5	989.5	869.1	790.2	741.8	712.7	703.0	701.6
57.5°	1788.0	1675.9	1436.5	1198.4	1004.7	878.8	795.7	741.8	711.3	700.2	698.9
59°	1808.7	1695.3	1447.5	1205.4	1007.5	880.2	794.4	737.6	705.8	694.7	691.9
60°	1819.8	1703.6	1451.7	1206.7	1006.1	877.4	793.0	733.5	700.2	687.8	687.8
62.5°	1830.9	1710.5	1446.2	1195.7	990.9	862.2	779.1	716.9	679.5	665.6	665.6
65°	1807.4	1685.6	1414.3	1165.2	960.4	835.9	752.8	689.2	647.7	633.8	633.8
67.5°	1738.2	1624.7	1356.2	1108.5	910.6	790.2	709.9	644.9	606.1	590.9	586.8
70°	1620.5	1525.0	1264.9	1026.8	842.8	732.1	656.0	593.7	553.6	538.3	532.8
72.5°	1462.8	1368.7	1143.1	927.2	752.8	656.0	589.5	530.0	485.7	470.5	471.9
75°	1245.5	1179.1	985.3	801.3	649.0	559.1	503.7	453.9	416.5	404.1	405.5
77.5°	1010.2	954.9	798.5	653.2	530.0	460.8	413.8	373.6	348.7	341.8	337.7
80°	773.6	719.6	599.2	487.1	402.7	354.3	322.4	294.8	275.4	265.7	268.5
82.5°	519.0	485.7	397.2	322.4	274.0	239.4	228.3	210.4	203.4	197.9	202.0
85°	279.5	250.5	207.6	173.0	150.8	141.2	143.9	142.5	137.0	135.6	139.8
87.5°	91.3	78.9	60.9	51.2	52.6	47.1	47.1	44.3	40.1	38.7	41.5
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)