

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: P677203

Luminaire Tested: **CCW-SA-2E-835-U-SL4-HSS**

Issue Date: 04/25/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P677203  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 04/25/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCW-SA-2E-835-U-SL4-HSS  
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @1050mA w/  
SL4 distribution lens and House Side Shield  
Light Source: (32) 3500K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

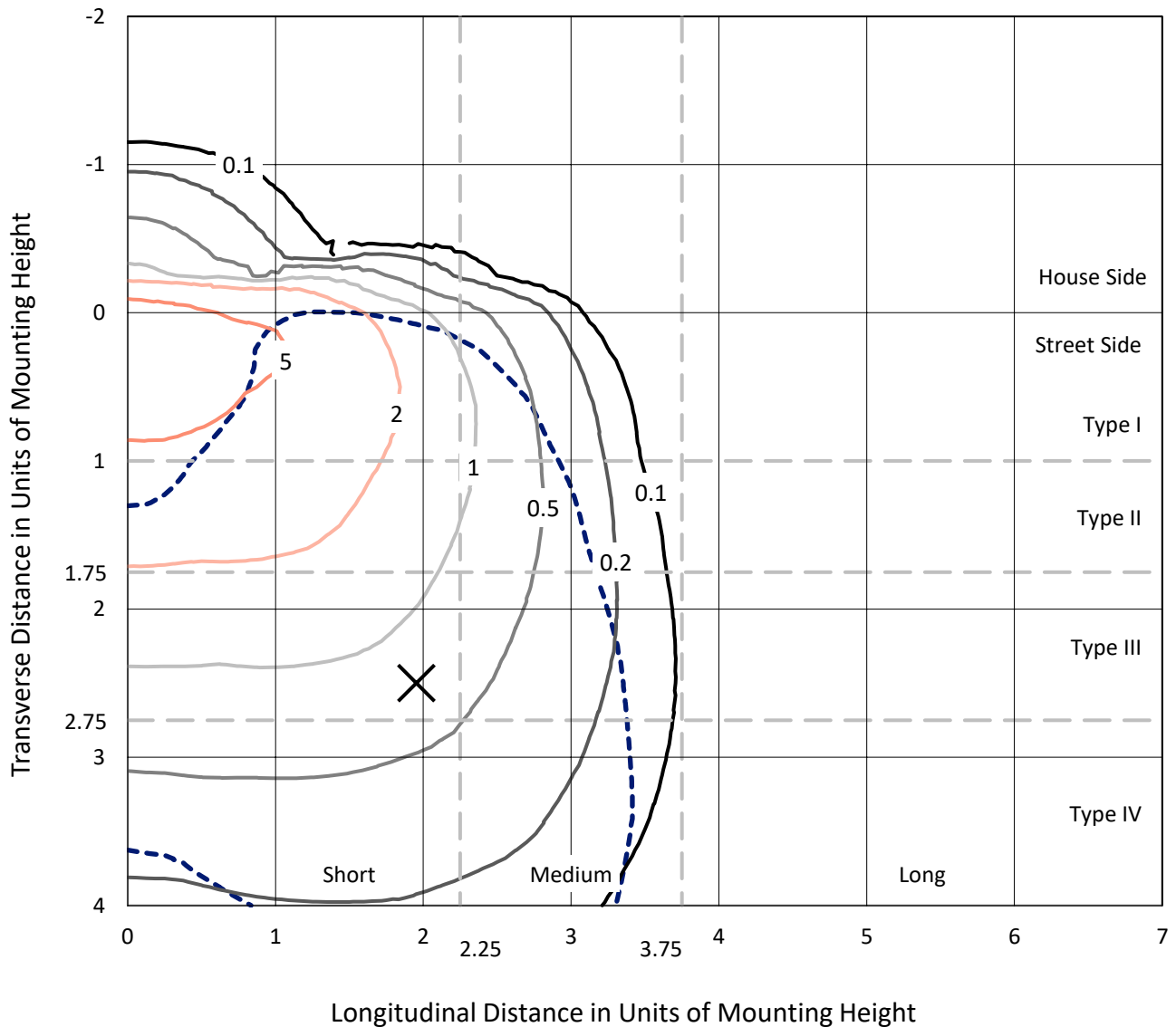
Lumens per Lamp: N/A  
Luminaire Lumens: 9306.5 lumens  
Efficiency: N/A  
Efficacy: 87.3 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2

Input Watts (W): 106.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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

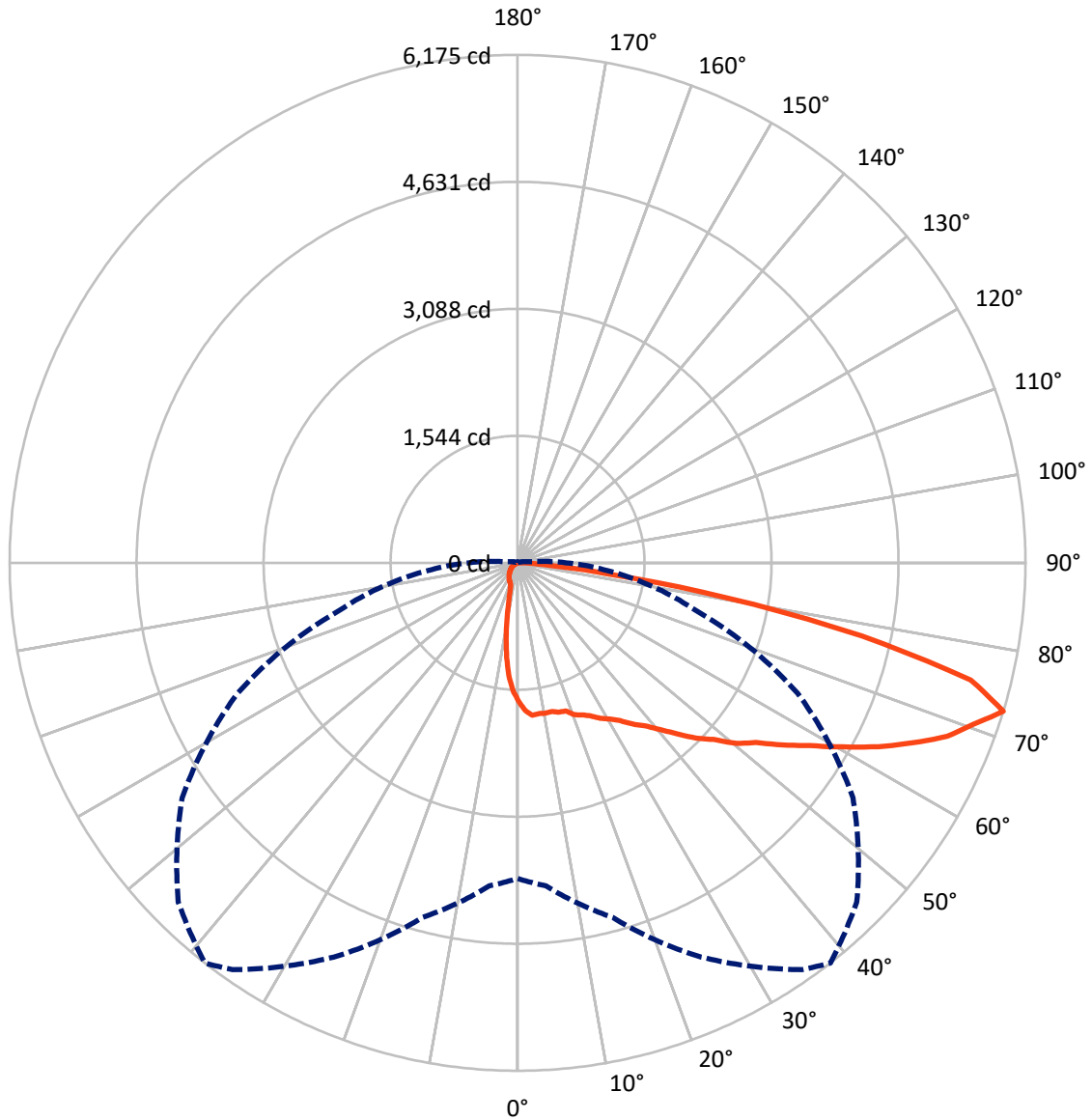
× Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 8.1 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical

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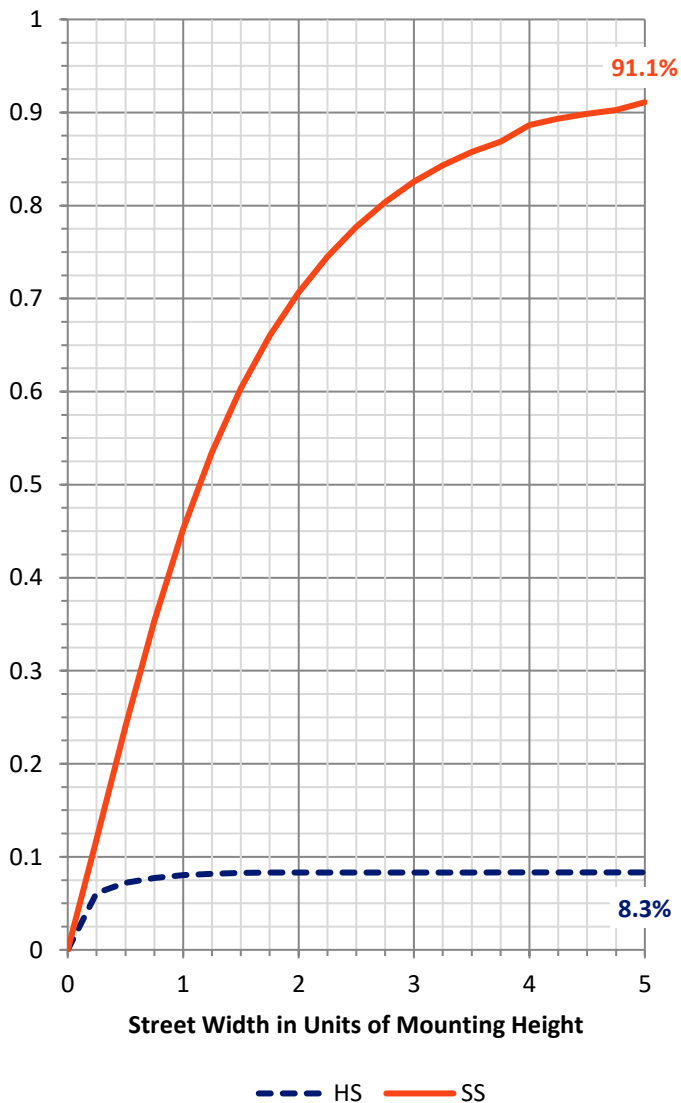
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	779.4	0.0	779.4
	% Fixture	8.4	0.0	8.4
<b>Street Side</b>	Lumens	8527.1	0.0	8527.1
	% Fixture	91.6	0.0	91.6
<b>Total</b>	Lumens	9306.5	0.0	9306.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	147.3	1.6
10°-20°	360.7	3.9
20°-30°	578.2	6.2
30°-40°	873.0	9.4
40°-50°	1328.6	14.3
50°-60°	1870.5	20.1
60°-70°	2284.8	24.6
70°-80°	1659.1	17.8
80°-90°	204.3	2.2
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°	9306.5	100.0
0°-180°	9306.5	100.0

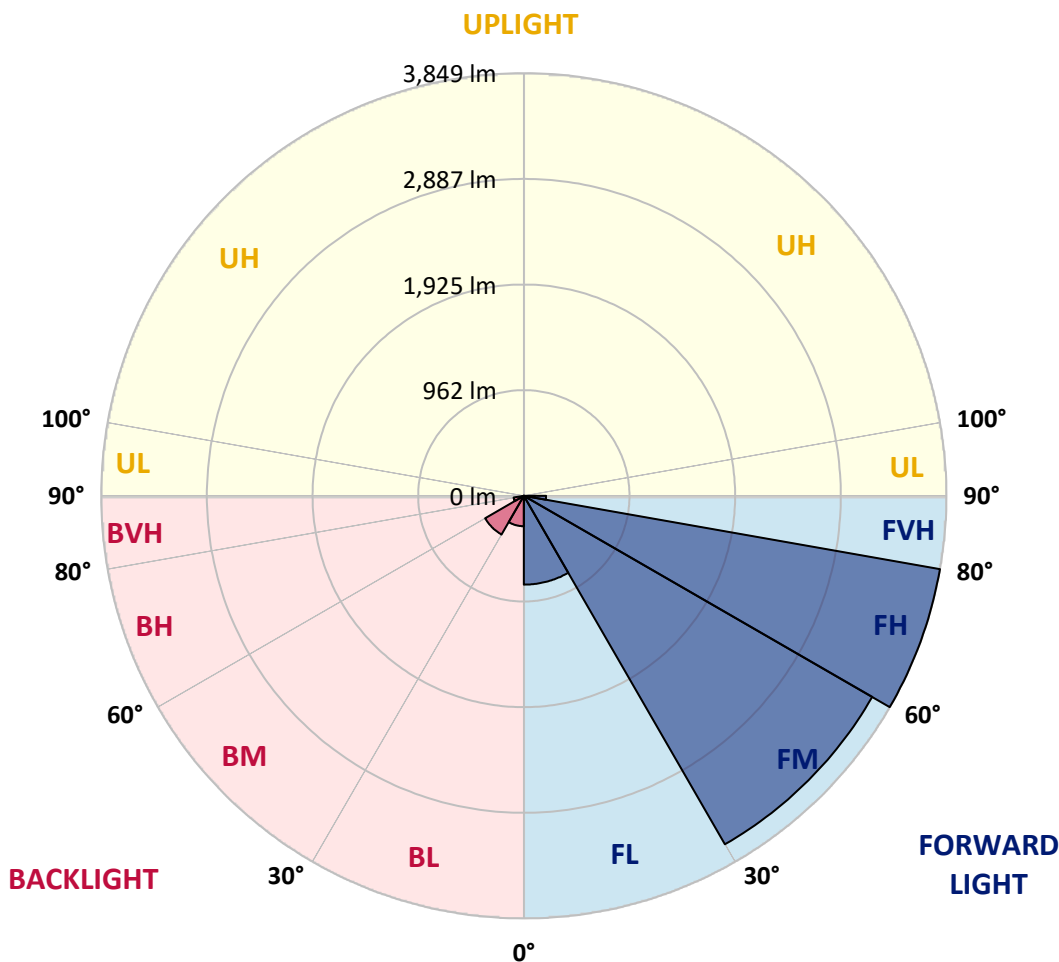


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	809.5	8.7			
FM (30°-60°)	3664.9	39.4			
FH (60°-80°)	3849.4	41.4			G2/5000
FVH (80°-90°)	203.3	2.2			G2/225
BL (0°-30°)	276.7	3.0	B1/500		
BM (30°-60°)	407.1	4.4	B1/1000		
BH (60°-80°)	94.5	1.0	B0/110		G0/110
BVH (80°-90°)	1.1	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**  
 Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	1683.0	1683.0	1683.0	1683.0	1683.0	1683.0	1683.0	1683.0	1683.0	1683.0	1683.0
2.5°	1848.9	1848.9	1866.3	1848.9	1842.3	1800.9	1803.0	1781.2	1759.4	1728.8	1700.4
5°	1870.7	1886.0	1896.9	1881.6	1857.6	1862.0	1877.3	1835.8	1776.8	1739.7	1676.4
7.5°	1862.0	1894.7	1886.0	1877.3	1862.0	1851.1	1829.2	1811.8	1783.4	1748.5	1674.2
10°	1855.4	1866.3	1868.5	1862.0	1829.2	1859.8	1835.8	1807.4	1772.5	1731.0	1639.3
12.5°	1831.4	1831.4	1851.1	1835.8	1840.1	1855.4	1844.5	1838.0	1800.9	1765.9	1685.2
15°	1805.2	1814.0	1844.5	1868.5	1890.4	1883.8	1877.3	1857.6	1824.9	1785.6	1700.4
17.5°	1811.8	1816.1	1864.2	1907.8	1896.9	1892.5	1927.5	1886.0	1853.2	1809.6	1713.5
20°	1835.8	1848.9	1903.4	1960.2	1971.1	1971.1	1958.0	1934.0	1888.2	1829.2	1737.6
22.5°	1859.8	1864.2	1953.7	2025.7	2036.6	2008.2	2019.1	1949.3	1905.6	1872.9	1761.6
25°	1951.5	1942.7	2038.8	2095.5	2089.0	2060.6	2049.7	1988.6	1971.1	1912.2	1814.0
27.5°	2075.9	2038.8	2132.6	2167.6	2132.6	2141.4	2110.8	2045.3	2008.2	1973.3	1838.0
30°	2152.3	2174.1	2224.3	2259.3	2200.3	2202.5	2187.2	2115.2	2058.4	2067.2	1918.7
32.5°	2270.2	2285.4	2322.6	2337.8	2292.0	2287.6	2272.4	2215.6	2174.1	2165.4	2027.9
35°	2396.8	2425.2	2427.3	2431.7	2390.2	2407.7	2385.9	2305.1	2326.9	2342.2	2158.8
37.5°	2521.2	2495.0	2538.7	2558.3	2512.5	2512.5	2519.0	2464.4	2503.7	2549.6	2344.4
40°	2569.2	2580.1	2656.5	2641.3	2695.8	2663.1	2687.1	2674.0	2706.7	2811.5	2606.3
42.5°	2619.4	2632.5	2735.1	2763.5	2829.0	2839.9	2874.8	2877.0	2973.0	3145.5	2857.4
45°	2715.5	2693.6	2833.3	2903.2	3010.2	3040.7	3082.2	3117.1	3267.7	3470.7	3143.3
47.5°	2802.8	2772.2	2931.6	3071.3	3202.2	3208.8	3322.3	3359.4	3538.4	3769.8	3427.1
50°	2925.0	2935.9	3003.6	3243.7	3376.9	3453.3	3531.9	3654.1	3852.7	4099.4	3632.3
52.5°	3051.6	3040.7	3154.2	3390.0	3599.5	3627.9	3804.7	3942.2	4158.3	4343.9	3723.9
55°	3206.6	3219.7	3263.4	3573.3	3839.6	3907.3	4105.9	4250.0	4485.8	4448.7	3754.5
57.5°	3361.6	3348.5	3446.7	3778.5	4140.9	4191.1	4455.2	4540.3	4699.7	4518.5	3678.1
60°	3514.4	3538.4	3579.9	4009.9	4470.5	4544.7	4754.3	4797.9	4832.8	4551.3	3619.2
62.5°	3689.0	3632.3	3761.1	4254.4	4767.4	4922.3	5088.2	4915.8	4885.2	4492.3	3483.8
65°	3776.3	3793.8	3961.9	4533.8	5162.5	5276.0	5297.8	5075.1	4918.0	4361.3	3357.2
67.5°	3911.7	3935.7	4149.6	4819.7	5568.5	5631.8	5553.2	5219.2	4889.6	4191.1	2901.0
70°	3929.1	3988.1	4400.6	5118.8	5823.9	5878.4	5817.3	5315.3	4660.4	3520.9	2147.9
72.5°	3837.5	3942.2	4461.8	5289.1	6037.8	6175.3	5832.6	4976.9	3756.7	2246.2	1100.2
75°	2898.8	2986.1	4084.1	5035.8	5658.0	5690.7	5121.0	3798.2	2139.2	766.2	281.6
77.5°	1501.8	1652.4	2726.4	3848.4	4311.1	4276.2	3564.6	2237.4	735.6	200.8	113.5
80°	862.2	899.3	1191.8	2161.0	2711.1	2578.0	1971.1	964.8	323.1	100.4	74.2
82.5°	425.7	478.0	641.8	967.0	1355.6	1115.4	740.0	578.5	181.2	54.6	65.5
85°	91.7	96.0	327.4	462.8	550.1	362.4	253.2	486.8	65.5	32.7	63.3
87.5°	65.5	63.3	91.7	207.4	152.8	93.9	150.6	255.4	15.3	15.3	13.1
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°	1683.0	1683.0	1683.0	1683.0	1683.0	1683.0	1683.0	1683.0	1683.0	1683.0	1683.0
2.5°	1683.0	1663.3	1641.5	1600.0	1589.1	1582.6	1545.5	1543.3	1536.7	1521.4	1514.9
5°	1637.1	1604.4	1562.9	1519.3	1484.3	1421.0	1344.6	1305.3	1257.3	1259.5	1244.2
7.5°	1630.6	1569.5	1510.5	1418.9	1307.5	1189.7	1071.8	995.4	940.8	908.1	914.6
10°	1600.0	1554.2	1458.1	1287.9	1108.9	929.9	779.3	665.8	600.3	550.1	565.4
12.5°	1613.1	1523.6	1388.3	1161.3	905.9	685.4	497.7	388.5	340.5	323.1	327.4
15°	1604.4	1523.6	1346.8	1023.8	711.6	464.9	323.1	288.1	279.4	279.4	275.0
17.5°	1630.6	1541.1	1277.0	888.4	510.8	310.0	277.2	270.7	264.1	264.1	264.1
20°	1667.7	1549.8	1228.9	737.8	360.2	272.9	259.8	255.4	253.2	253.2	251.0
22.5°	1669.9	1541.1	1139.4	571.9	277.2	257.6	246.7	244.5	244.5	240.1	240.1
25°	1683.0	1549.8	1043.4	430.0	257.6	242.3	233.6	231.4	233.6	231.4	229.2
27.5°	1715.7	1565.1	947.4	314.3	242.3	229.2	222.7	220.5	220.5	220.5	216.1
30°	1757.2	1565.1	840.4	259.8	229.2	216.1	209.6	207.4	205.2	205.2	205.2
32.5°	1844.5	1615.3	709.4	231.4	211.7	200.8	194.3	194.3	192.1	192.1	189.9
35°	1953.7	1650.2	576.3	213.9	196.5	185.5	179.0	179.0	176.8	176.8	174.6
37.5°	2089.0	1737.6	440.9	200.8	181.2	170.3	163.7	163.7	163.7	161.5	161.5
40°	2281.1	1827.0	327.4	183.4	165.9	155.0	150.6	148.4	146.3	146.3	141.9
42.5°	2486.3	1964.6	244.5	170.3	152.8	144.1	137.5	131.0	131.0	124.4	124.4
45°	2708.9	2084.6	198.6	155.0	139.7	128.8	122.2	117.9	111.3	107.0	107.0
47.5°	2927.2	2158.8	174.6	137.5	126.6	117.9	111.3	102.6	93.9	91.7	89.5
50°	3104.0	2180.7	155.0	124.4	115.7	107.0	98.2	87.3	78.6	74.2	72.0
52.5°	3104.0	2060.6	139.7	111.3	104.8	96.0	85.1	72.0	61.1	56.8	54.6
55°	3104.0	1870.7	124.4	102.6	93.9	87.3	72.0	58.9	48.0	41.5	39.3
57.5°	3058.2	1641.5	111.3	91.7	82.9	74.2	61.1	45.8	34.9	28.4	28.4
60°	2931.6	1401.4	96.0	80.8	72.0	61.1	48.0	32.7	21.8	15.3	15.3
62.5°	2770.0	1115.4	82.9	67.7	58.9	50.2	37.1	21.8	8.7	4.4	4.4
65°	2488.5	822.9	72.0	56.8	45.8	37.1	24.0	8.7	0.0	0.0	0.0
67.5°	2054.1	550.1	56.8	45.8	39.3	26.2	15.3	2.2	0.0	0.0	0.0
70°	1445.0	312.1	43.7	32.7	28.4	17.5	4.4	0.0	0.0	0.0	0.0
72.5°	593.7	137.5	30.6	24.0	19.6	8.7	0.0	0.0	0.0	0.0	0.0
75°	161.5	61.1	19.6	13.1	10.9	2.2	0.0	0.0	0.0	0.0	0.0
77.5°	93.9	41.5	8.7	4.4	4.4	0.0	0.0	0.0	0.0	0.0	0.0
80°	74.2	19.6	4.4	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	74.2	10.9	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	63.3	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)