

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: P677220

Luminaire Tested: **CCW-SA-1F-850-U-SL4-HSS**

Issue Date: 04/25/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P677220  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 04/25/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCW-SA-1F-850-U-SL4-HSS  
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @1200mA w/  
SL4 distribution lens and House Side Shield  
Light Source: (16) 5000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

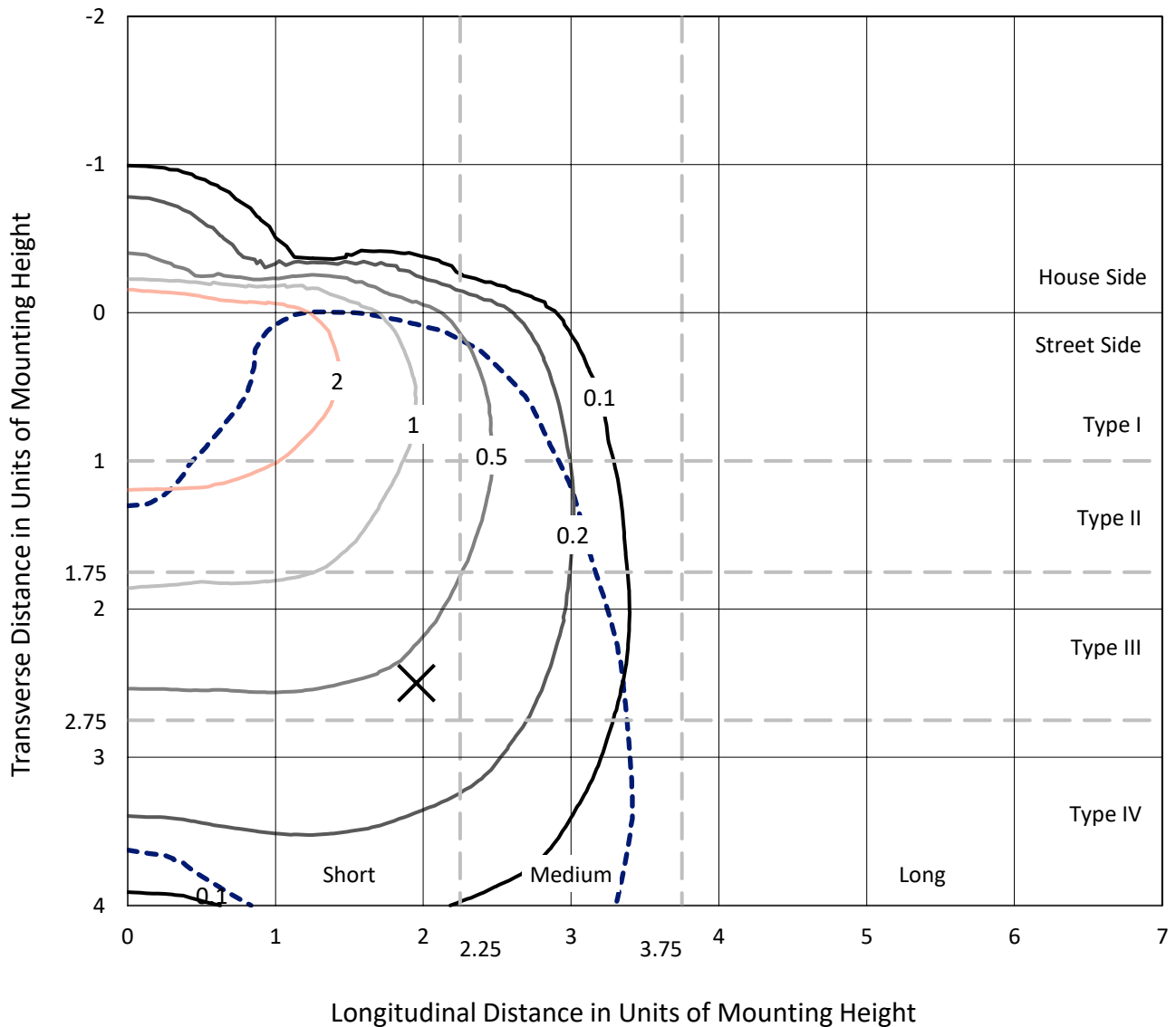
Lumens per Lamp: N/A  
Luminaire Lumens: 5404.2 lumens  
Efficiency: N/A  
Efficacy: 80.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2

Input Watts (W): 67  
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

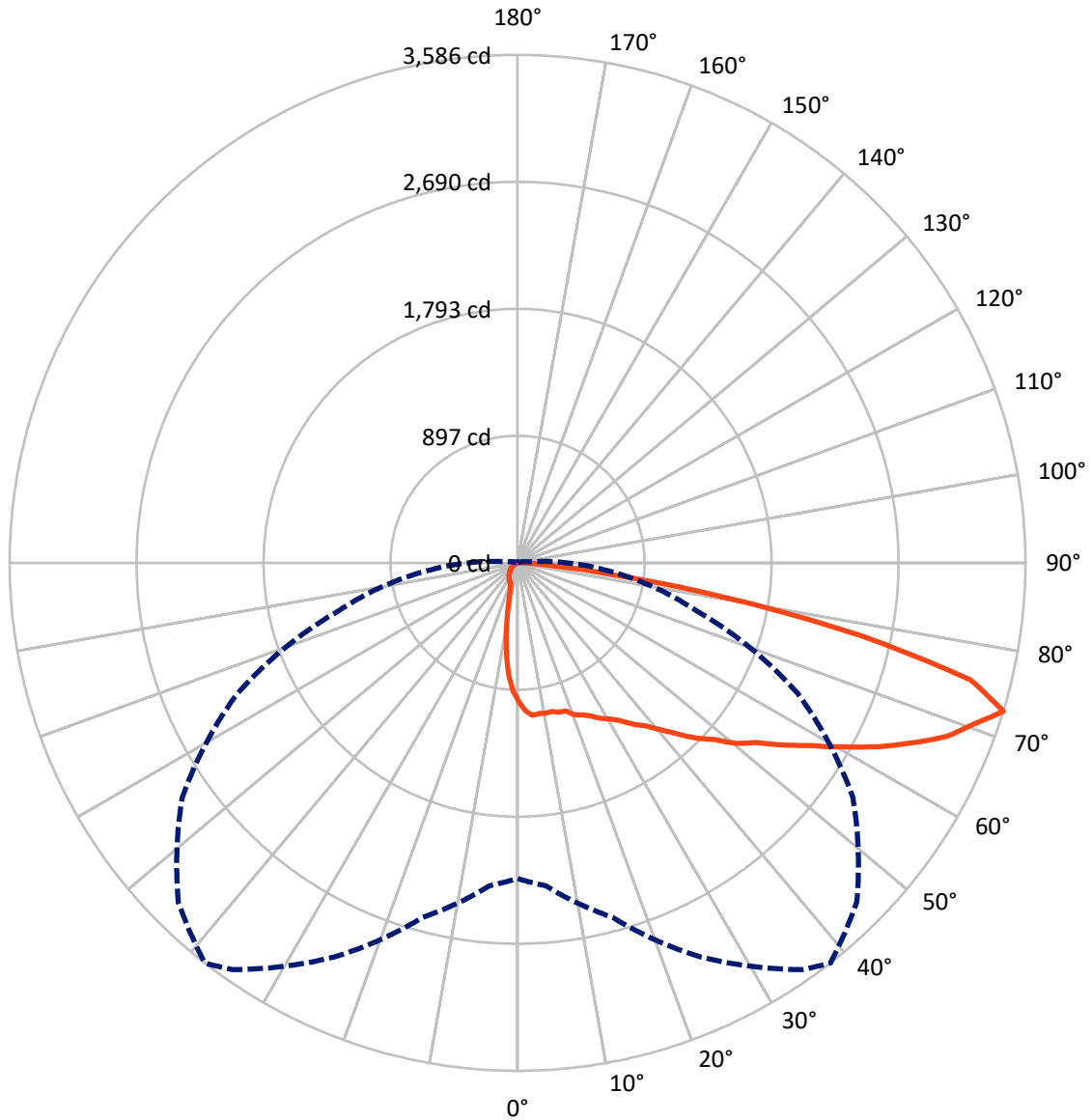
× Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 4.7 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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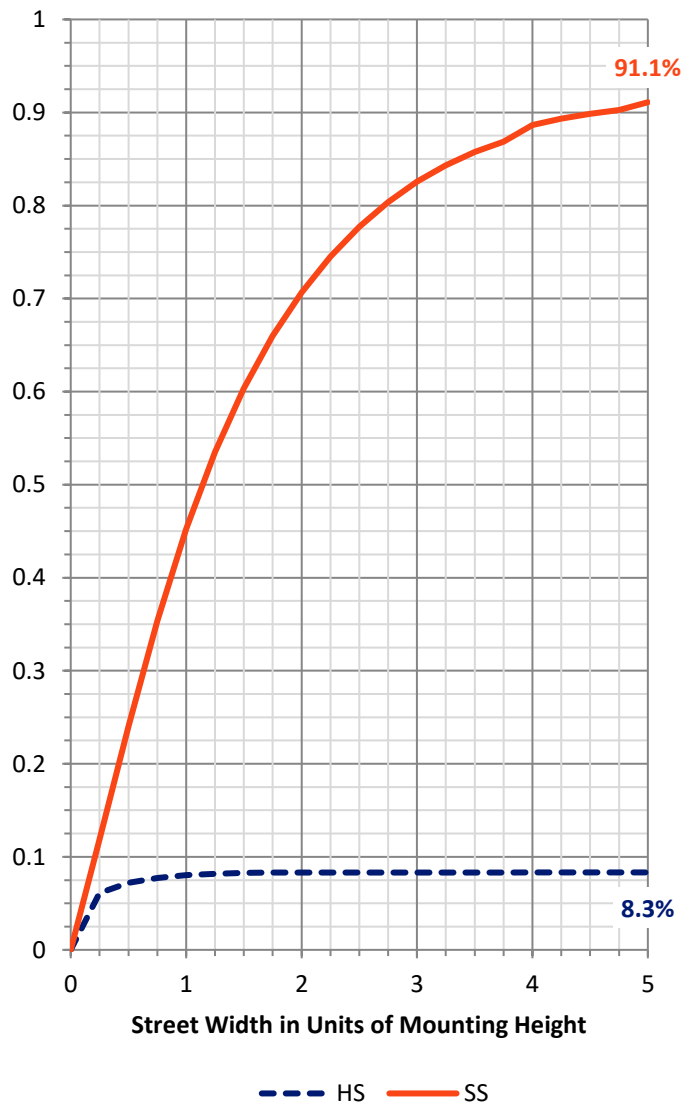
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	452.6	0.0	452.6
	% Fixture	8.4	0.0	8.4
<b>Street Side</b>	Lumens	4951.6	0.0	4951.6
	% Fixture	91.6	0.0	91.6
<b>Total</b>	Lumens	5404.2	0.0	5404.2
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	85.5	1.6
10°-20°	209.4	3.9
20°-30°	335.8	6.2
30°-40°	506.9	9.4
40°-50°	771.5	14.3
50°-60°	1086.2	20.1
60°-70°	1326.8	24.6
70°-80°	963.4	17.8
80°-90°	118.6	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°	5404.2	100.0
0°-180°	5404.2	100.0

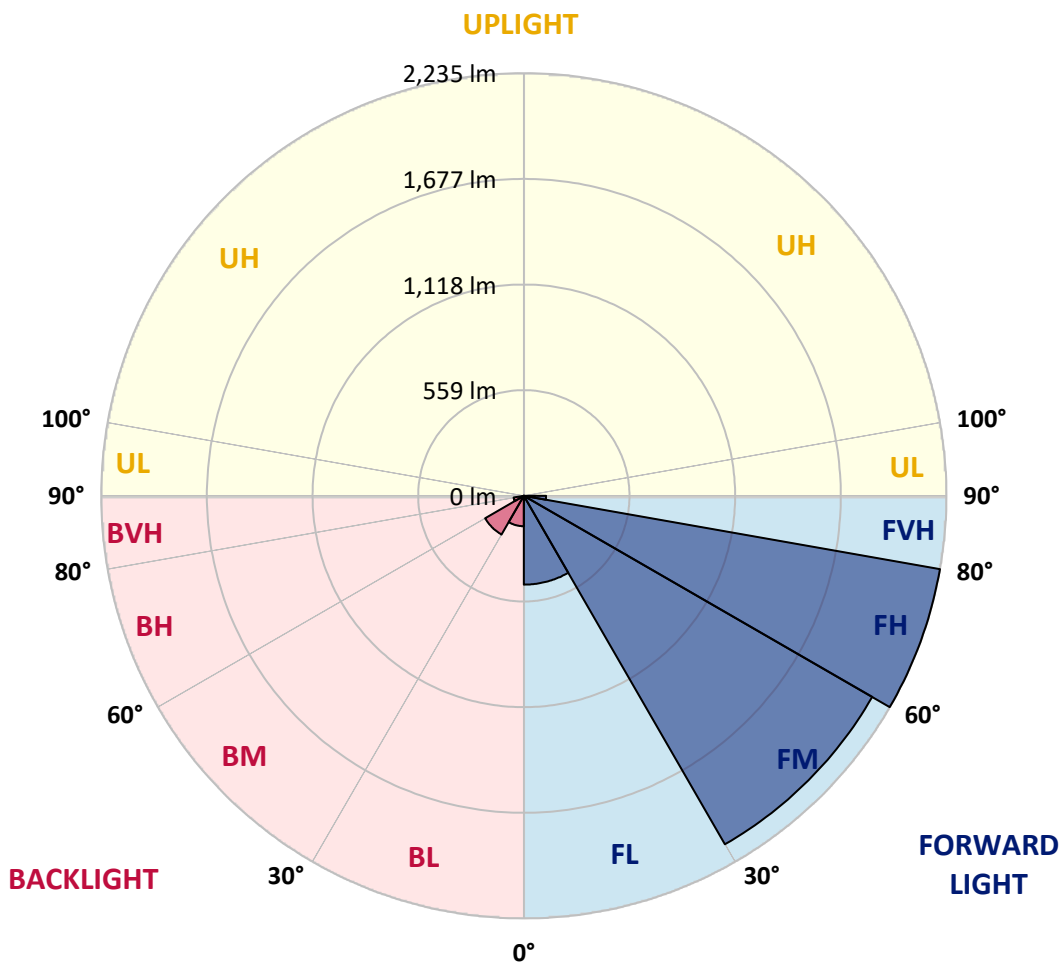


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	470.0	8.7			
FM (30°-60°)	2128.2	39.4			
FH (60°-80°)	2235.3	41.4			G2/5000
FVH (80°-90°)	118.0	2.2			G2/225
BL (0°-30°)	160.7	3.0	B1/500		
BM (30°-60°)	236.4	4.4	B1/1000		
BH (60°-80°)	54.9	1.0	B0/110		G0/110
BVH (80°-90°)	0.6	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°	977.3	977.3	977.3	977.3	977.3	977.3	977.3	977.3	977.3	977.3	977.3
2.5°	1073.6	1073.6	1083.8	1073.6	1069.8	1045.7	1047.0	1034.3	1021.7	1003.9	987.4
5°	1086.3	1095.2	1101.5	1092.6	1078.7	1081.2	1090.1	1066.0	1031.8	1010.3	973.5
7.5°	1081.2	1100.3	1095.2	1090.1	1081.2	1074.9	1062.2	1052.1	1035.6	1015.3	972.2
10°	1077.4	1083.8	1085.0	1081.2	1062.2	1080.0	1066.0	1049.6	1029.3	1005.2	951.9
12.5°	1063.5	1063.5	1074.9	1066.0	1068.6	1077.4	1071.1	1067.3	1045.7	1025.5	978.6
15°	1048.3	1053.4	1071.1	1085.0	1097.7	1093.9	1090.1	1078.7	1059.7	1036.9	987.4
17.5°	1052.1	1054.6	1082.5	1107.9	1101.5	1099.0	1119.3	1095.2	1076.2	1050.8	995.0
20°	1066.0	1073.6	1105.3	1138.3	1144.6	1144.6	1137.0	1123.1	1096.5	1062.2	1009.0
22.5°	1080.0	1082.5	1134.5	1176.3	1182.6	1166.2	1172.5	1131.9	1106.6	1087.6	1022.9
25°	1133.2	1128.1	1183.9	1216.9	1213.1	1196.6	1190.3	1154.8	1144.6	1110.4	1053.4
27.5°	1205.5	1183.9	1238.4	1258.7	1238.4	1243.5	1225.7	1187.7	1166.2	1145.9	1067.3
30°	1249.8	1262.5	1291.7	1311.9	1277.7	1279.0	1270.1	1228.3	1195.3	1200.4	1114.2
32.5°	1318.3	1327.2	1348.7	1357.6	1331.0	1328.4	1319.5	1286.6	1262.5	1257.4	1177.6
35°	1391.8	1408.3	1409.5	1412.1	1388.0	1398.1	1385.5	1338.6	1351.2	1360.1	1253.6
37.5°	1464.0	1448.8	1474.2	1485.6	1459.0	1459.0	1462.8	1431.1	1453.9	1480.5	1361.4
40°	1491.9	1498.3	1542.6	1533.8	1565.5	1546.4	1560.4	1552.8	1571.8	1632.6	1513.5
42.5°	1521.1	1528.7	1588.3	1604.8	1642.8	1649.1	1669.4	1670.7	1726.4	1826.6	1659.3
45°	1576.9	1564.2	1645.3	1685.9	1748.0	1765.7	1789.8	1810.1	1897.6	2015.4	1825.3
47.5°	1627.6	1609.8	1702.4	1783.5	1859.5	1863.3	1929.2	1950.8	2054.7	2189.1	1990.1
50°	1698.6	1704.9	1744.2	1883.6	1960.9	2005.3	2050.9	2121.9	2237.3	2380.5	2109.2
52.5°	1772.1	1765.7	1831.6	1968.5	2090.2	2106.7	2209.4	2289.2	2414.7	2522.5	2162.5
55°	1862.1	1869.7	1895.0	2075.0	2229.7	2269.0	2384.3	2468.0	2604.9	2583.3	2180.2
57.5°	1952.1	1944.5	2001.5	2194.2	2404.6	2433.7	2587.1	2636.6	2729.1	2623.9	2135.9
60°	2040.8	2054.7	2078.8	2328.5	2596.0	2639.1	2760.8	2786.1	2806.4	2642.9	2101.6
62.5°	2142.2	2109.2	2184.0	2470.5	2768.4	2858.4	2954.7	2854.6	2836.8	2608.7	2023.1
65°	2192.9	2203.0	2300.6	2632.8	2997.8	3063.7	3076.4	2947.1	2855.8	2532.6	1949.5
67.5°	2271.5	2285.4	2409.7	2798.8	3233.6	3270.3	3224.7	3030.8	2839.4	2433.7	1684.6
70°	2281.6	2315.9	2555.4	2972.5	3381.9	3413.6	3378.1	3086.5	2706.3	2044.6	1247.3
72.5°	2228.4	2289.2	2590.9	3071.3	3506.1	3586.0	3387.0	2890.1	2181.5	1304.3	638.9
75°	1683.3	1734.0	2371.6	2924.3	3285.6	3304.6	2973.7	2205.6	1242.2	444.9	163.5
77.5°	872.1	959.6	1583.2	2234.7	2503.5	2483.2	2070.0	1299.3	427.2	116.6	65.9
80°	500.7	522.2	692.1	1254.9	1574.3	1497.0	1144.6	560.3	187.6	58.3	43.1
82.5°	247.2	277.6	372.7	561.5	787.2	647.7	429.7	335.9	105.2	31.7	38.0
85°	53.2	55.8	190.1	268.7	319.4	210.4	147.0	282.7	38.0	19.0	36.8
87.5°	38.0	36.8	53.2	120.4	88.7	54.5	87.5	148.3	8.9	8.9	7.6
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°	977.3	977.3	977.3	977.3	977.3	977.3	977.3	977.3	977.3	977.3	977.3
2.5°	977.3	965.9	953.2	929.1	922.8	919.0	897.4	896.2	892.4	883.5	879.7
5°	950.7	931.7	907.6	882.2	862.0	825.2	780.8	758.0	730.1	731.4	722.5
7.5°	946.9	911.4	877.2	823.9	759.3	690.8	622.4	578.0	546.3	527.3	531.1
10°	929.1	902.5	846.7	747.9	643.9	540.0	452.5	386.6	348.6	319.4	328.3
12.5°	936.7	884.8	806.2	674.4	526.0	398.0	289.0	225.6	197.7	187.6	190.1
15°	931.7	884.8	782.1	594.5	413.2	270.0	187.6	167.3	162.2	162.2	159.7
17.5°	946.9	894.9	741.5	515.9	296.6	180.0	161.0	157.2	153.4	153.4	153.4
20°	968.4	900.0	713.6	428.4	209.1	158.4	150.8	148.3	147.0	147.0	145.8
22.5°	969.7	894.9	661.7	332.1	161.0	149.6	143.2	142.0	142.0	139.4	139.4
25°	977.3	900.0	605.9	249.7	149.6	140.7	135.6	134.4	135.6	134.4	133.1
27.5°	996.3	908.9	550.1	182.5	140.7	133.1	129.3	128.0	128.0	128.0	125.5
30°	1020.4	908.9	488.0	150.8	133.1	125.5	121.7	120.4	119.2	119.2	119.2
32.5°	1071.1	938.0	412.0	134.4	123.0	116.6	112.8	112.8	111.5	111.5	110.3
35°	1134.5	958.3	334.6	124.2	114.1	107.7	103.9	103.9	102.7	102.7	101.4
37.5°	1213.1	1009.0	256.1	116.6	105.2	98.9	95.1	95.1	95.1	93.8	93.8
40°	1324.6	1061.0	190.1	106.5	96.3	90.0	87.5	86.2	84.9	84.9	82.4
42.5°	1443.8	1140.8	142.0	98.9	88.7	83.7	79.9	76.1	76.1	72.3	72.3
45°	1573.1	1210.5	115.3	90.0	81.1	74.8	71.0	68.4	64.6	62.1	62.1
47.5°	1699.8	1253.6	101.4	79.9	73.5	68.4	64.6	59.6	54.5	53.2	52.0
50°	1802.5	1266.3	90.0	72.3	67.2	62.1	57.0	50.7	45.6	43.1	41.8
52.5°	1802.5	1196.6	81.1	64.6	60.8	55.8	49.4	41.8	35.5	33.0	31.7
55°	1802.5	1086.3	72.3	59.6	54.5	50.7	41.8	34.2	27.9	24.1	22.8
57.5°	1775.9	953.2	64.6	53.2	48.2	43.1	35.5	26.6	20.3	16.5	16.5
60°	1702.4	813.8	55.8	46.9	41.8	35.5	27.9	19.0	12.7	8.9	8.9
62.5°	1608.6	647.7	48.2	39.3	34.2	29.2	21.5	12.7	5.1	2.5	2.5
65°	1445.0	477.9	41.8	33.0	26.6	21.5	13.9	5.1	0.0	0.0	0.0
67.5°	1192.8	319.4	33.0	26.6	22.8	15.2	8.9	1.3	0.0	0.0	0.0
70°	839.1	181.3	25.4	19.0	16.5	10.1	2.5	0.0	0.0	0.0	0.0
72.5°	344.8	79.9	17.7	13.9	11.4	5.1	0.0	0.0	0.0	0.0	0.0
75°	93.8	35.5	11.4	7.6	6.3	1.3	0.0	0.0	0.0	0.0	0.0
77.5°	54.5	24.1	5.1	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
80°	43.1	11.4	2.5	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	43.1	6.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	36.8	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.1	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)