

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: P677211

Luminaire Tested: **CCW-SA-2B-840-U-SL4-HSS**

Issue Date: 04/25/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P677211  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 04/25/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCW-SA-2B-840-U-SL4-HSS  
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @450mA w/  
SL4 distribution lens and House Side Shield  
Light Source: (32) 4000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

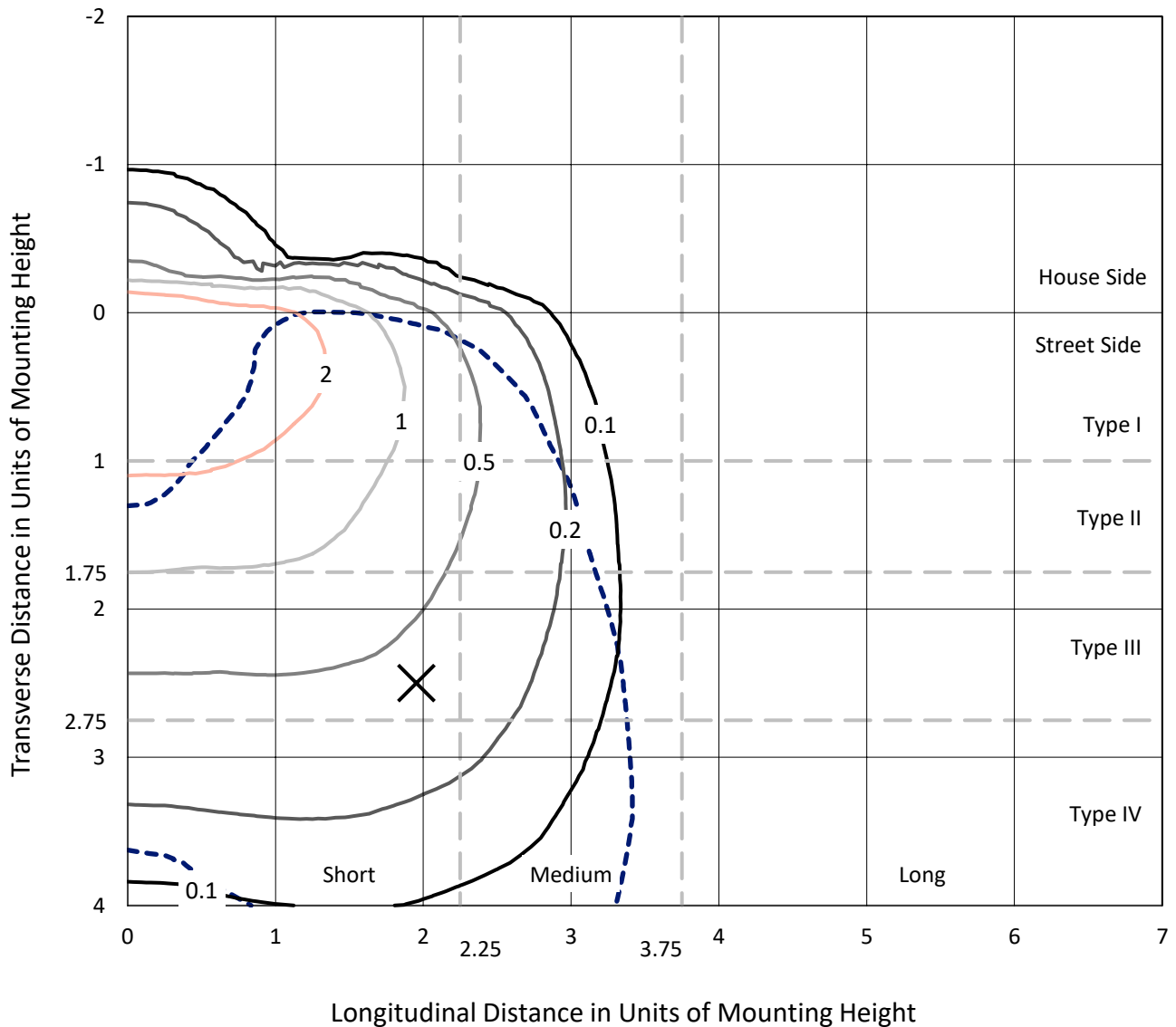
Lumens per Lamp: N/A  
Luminaire Lumens: 4863.8 lumens  
Efficiency: N/A  
Efficacy: 105.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2

Input Watts (W): 46  
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

REPORT NUMBER: P677211  
 CATALOG NUMBER: CCW-SA-2B-840-U-SL4-HSS

### Iso-Footcandle Lines of Horizontal Illumination

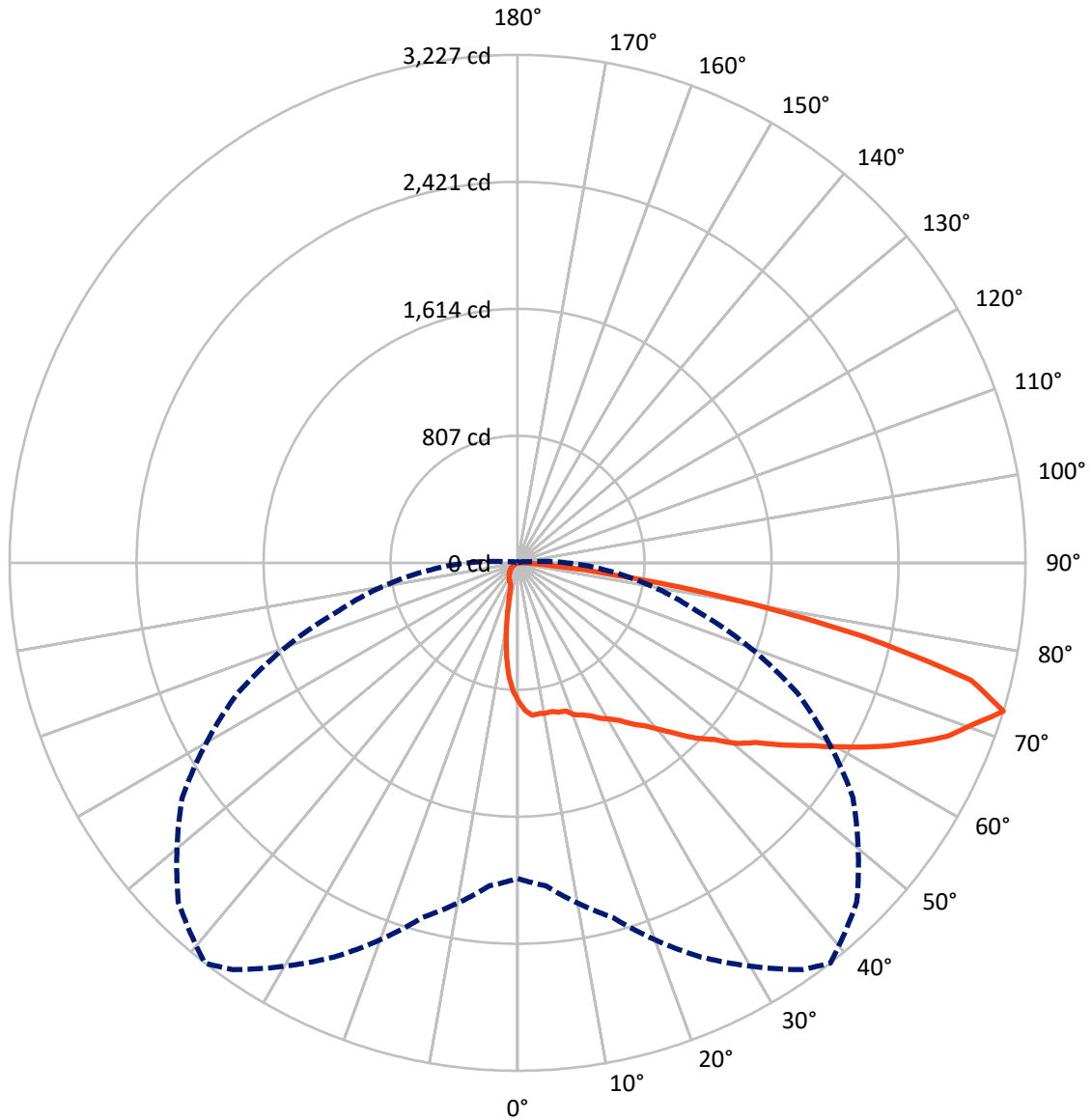
× Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 4.2 fc  
 Type IV - Short - N/A

REPORT NUMBER: P677211  
CATALOG NUMBER: CCW-SA-2B-840-U-SL4-HSS

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P677211  
 CATALOG NUMBER: CCW-SA-2B-840-U-SL4-HSS

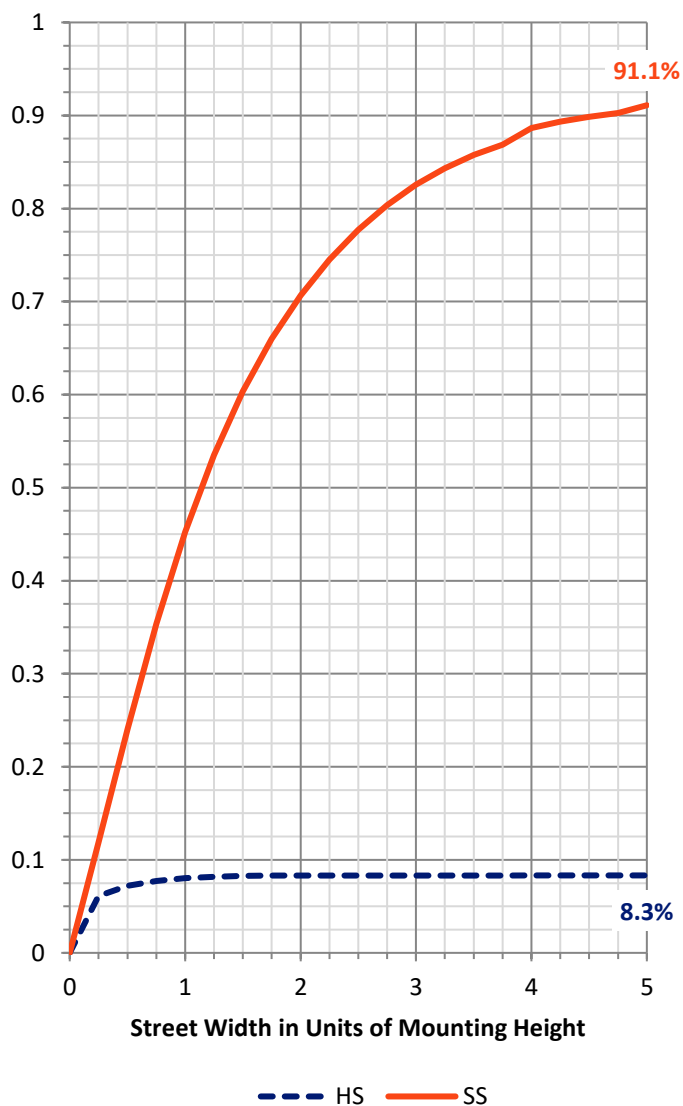
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	407.4	0.0	407.4
	% Fixture	8.4	0.0	8.4
<b>Street Side</b>	Lumens	4456.5	0.0	4456.5
	% Fixture	91.6	0.0	91.6
<b>Total</b>	Lumens	4863.8	0.0	4863.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.0	1.6
10°-20°	188.5	3.9
20°-30°	302.2	6.2
30°-40°	456.2	9.4
40°-50°	694.4	14.3
50°-60°	977.6	20.1
60°-70°	1194.1	24.6
70°-80°	867.1	17.8
80°-90°	106.8	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°	4863.8	100.0
0°-180°	4863.8	100.0

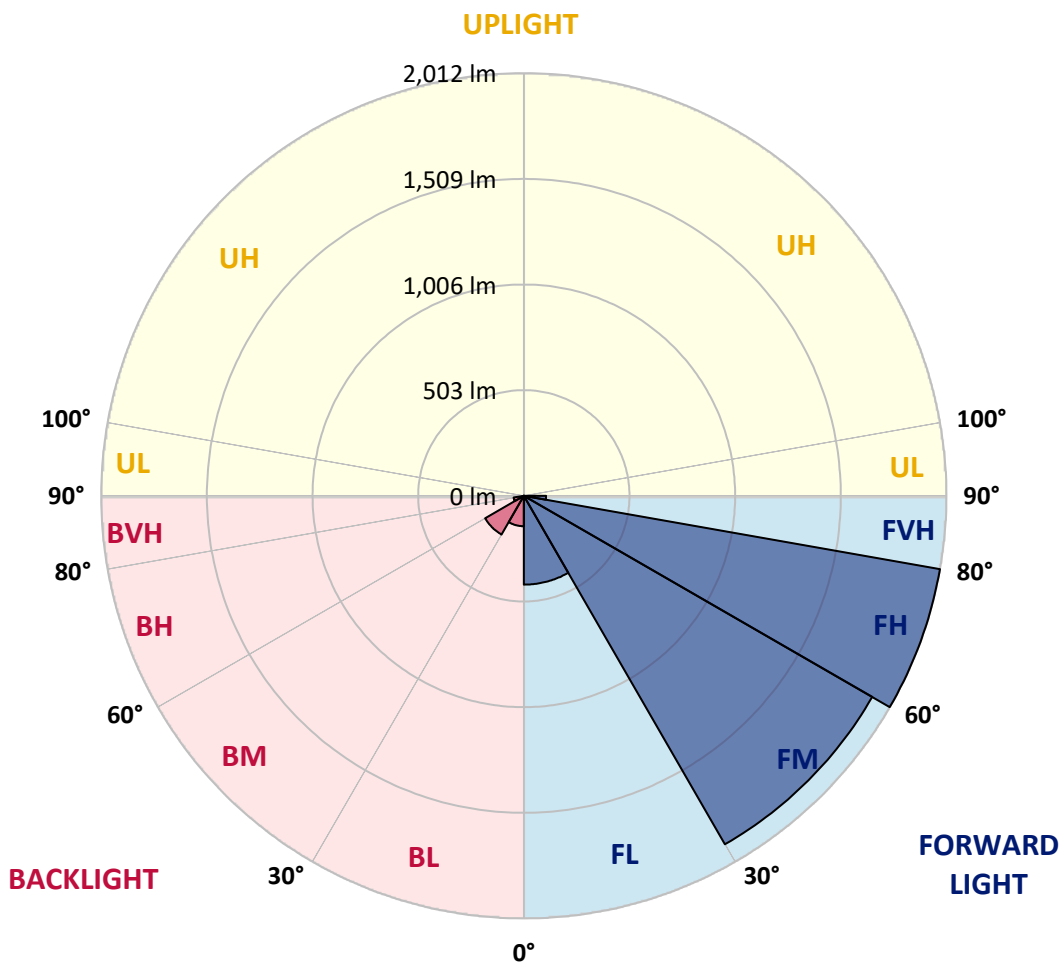


REPORT NUMBER: P677211  
 CATALOG NUMBER: CCW-SA-2B-840-U-SL4-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	423.0	8.7			
FM (30°-60°)	1915.4	39.4			
FH (60°-80°)	2011.8	41.4			G2/5000
FVH (80°-90°)	106.2	2.2			G2/225
BL (0°-30°)	144.6	3.0	B1/500		
BM (30°-60°)	212.8	4.4	B0/220		
BH (60°-80°)	49.4	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





REPORT NUMBER: P677211

CATALOG NUMBER: CCW-SA-2B-840-U-SL4-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	879.6	879.6	879.6	879.6	879.6	879.6	879.6	879.6	879.6	879.6	879.6
2.5°	966.3	966.3	975.4	966.3	962.9	941.2	942.3	930.9	919.5	903.5	888.7
5°	977.7	985.7	991.4	983.4	970.8	973.1	981.1	959.4	928.6	909.2	876.1
7.5°	973.1	990.2	985.7	981.1	973.1	967.4	956.0	946.9	932.0	913.8	875.0
10°	969.7	975.4	976.5	973.1	956.0	972.0	959.4	944.6	926.3	904.7	856.8
12.5°	957.1	957.1	967.4	959.4	961.7	969.7	964.0	960.6	941.2	922.9	880.7
15°	943.5	948.0	964.0	976.5	987.9	984.5	981.1	970.8	953.7	933.2	888.7
17.5°	946.9	949.2	974.3	997.1	991.4	989.1	1007.3	985.7	968.6	945.7	895.5
20°	959.4	966.3	994.8	1024.5	1030.2	1030.2	1023.3	1010.8	986.8	956.0	908.1
22.5°	972.0	974.3	1021.0	1058.7	1064.4	1049.6	1055.3	1018.8	995.9	978.8	920.6
25°	1019.9	1015.3	1065.5	1095.2	1091.8	1076.9	1071.2	1039.3	1030.2	999.4	948.0
27.5°	1084.9	1065.5	1114.6	1132.8	1114.6	1119.1	1103.2	1068.9	1049.6	1031.3	960.6
30°	1124.8	1136.3	1162.5	1180.7	1149.9	1151.1	1143.1	1105.5	1075.8	1080.4	1002.8
32.5°	1186.5	1194.4	1213.8	1221.8	1197.9	1195.6	1187.6	1157.9	1136.3	1131.7	1059.8
35°	1252.6	1267.4	1268.6	1270.9	1249.2	1258.3	1246.9	1204.7	1216.1	1224.1	1128.3
37.5°	1317.6	1304.0	1326.8	1337.0	1313.1	1313.1	1316.5	1288.0	1308.5	1332.5	1225.2
40°	1342.7	1348.4	1388.4	1380.4	1408.9	1391.8	1404.3	1397.5	1414.6	1469.4	1362.1
42.5°	1369.0	1375.8	1429.4	1444.3	1478.5	1484.2	1502.5	1503.6	1553.8	1643.9	1493.3
45°	1419.2	1407.8	1480.8	1517.3	1573.2	1589.2	1610.8	1629.1	1707.8	1813.9	1642.8
47.5°	1464.8	1448.8	1532.1	1605.1	1673.6	1677.0	1736.3	1755.7	1849.3	1970.2	1791.1
50°	1528.7	1534.4	1569.8	1695.3	1764.8	1804.8	1845.8	1909.7	2013.5	2142.5	1898.3
52.5°	1594.9	1589.2	1648.5	1771.7	1881.2	1896.0	1988.4	2060.3	2173.3	2270.2	1946.2
55°	1675.9	1682.7	1705.5	1867.5	2006.7	2042.1	2145.9	2221.2	2344.4	2325.0	1962.2
57.5°	1756.9	1750.0	1801.4	1974.8	2164.1	2190.4	2328.4	2372.9	2456.2	2361.5	1922.3
60°	1836.7	1849.3	1870.9	2095.7	2336.4	2375.2	2484.7	2507.5	2525.8	2378.6	1891.5
62.5°	1928.0	1898.3	1965.6	2223.5	2491.5	2572.5	2659.2	2569.1	2553.2	2347.8	1820.7
65°	1973.6	1982.7	2070.6	2369.5	2698.0	2757.4	2768.8	2652.4	2570.3	2279.4	1754.6
67.5°	2044.3	2056.9	2168.7	2518.9	2910.2	2943.3	2902.2	2727.7	2555.4	2190.4	1516.1
70°	2053.5	2084.3	2299.9	2675.2	3043.7	3072.2	3040.3	2777.9	2435.6	1840.1	1122.6
72.5°	2005.6	2060.3	2331.8	2764.2	3155.5	3227.4	3048.3	2601.1	1963.3	1173.9	575.0
75°	1515.0	1560.6	2134.5	2631.9	2957.0	2974.1	2676.4	1985.0	1118.0	400.4	147.2
77.5°	784.9	863.6	1424.9	2011.3	2253.1	2234.9	1863.0	1169.3	384.5	105.0	59.3
80°	450.6	470.0	622.9	1129.4	1416.9	1347.3	1030.2	504.2	168.8	52.5	38.8
82.5°	222.5	249.8	335.4	505.4	708.4	583.0	386.7	302.3	94.7	28.5	34.2
85°	47.9	50.2	171.1	241.9	287.5	189.4	132.3	254.4	34.2	17.1	33.1
87.5°	34.2	33.1	47.9	108.4	79.9	49.1	78.7	133.5	8.0	8.0	6.8
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: P677211  
 CATALOG NUMBER: CCW-SA-2B-840-U-SL4-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	879.6	879.6	879.6	879.6	879.6	879.6	879.6	879.6	879.6	879.6	879.6
2.5°	879.6	869.3	857.9	836.2	830.5	827.1	807.7	806.6	803.1	795.2	791.7
5°	855.6	838.5	816.8	794.0	775.8	742.7	702.7	682.2	657.1	658.3	650.3
7.5°	852.2	820.2	789.4	741.5	683.4	621.7	560.1	520.2	491.7	474.6	478.0
10°	836.2	812.3	762.1	673.1	579.5	486.0	407.3	347.9	313.7	287.5	295.5
12.5°	843.1	796.3	725.6	606.9	473.4	358.2	260.1	203.1	178.0	168.8	171.1
15°	838.5	796.3	703.9	535.0	371.9	243.0	168.8	150.6	146.0	146.0	143.7
17.5°	852.2	805.4	667.4	464.3	267.0	162.0	144.9	141.5	138.0	138.0	138.0
20°	871.6	810.0	642.3	385.6	188.2	142.6	135.8	133.5	132.3	132.3	131.2
22.5°	872.7	805.4	595.5	298.9	144.9	134.6	128.9	127.8	127.8	125.5	125.5
25°	879.6	810.0	545.3	224.7	134.6	126.6	122.1	120.9	122.1	120.9	119.8
27.5°	896.7	818.0	495.1	164.3	126.6	119.8	116.4	115.2	115.2	115.2	112.9
30°	918.4	818.0	439.2	135.8	119.8	112.9	109.5	108.4	107.2	107.2	107.2
32.5°	964.0	844.2	370.8	120.9	110.7	105.0	101.5	101.5	100.4	100.4	99.3
35°	1021.0	862.5	301.2	111.8	102.7	97.0	93.5	93.5	92.4	92.4	91.3
37.5°	1091.8	908.1	230.4	105.0	94.7	89.0	85.6	85.6	85.6	84.4	84.4
40°	1192.2	954.9	171.1	95.8	86.7	81.0	78.7	77.6	76.4	76.4	74.2
42.5°	1299.4	1026.7	127.8	89.0	79.9	75.3	71.9	68.4	68.4	65.0	65.0
45°	1415.8	1089.5	103.8	81.0	73.0	67.3	63.9	61.6	58.2	55.9	55.9
47.5°	1529.8	1128.3	91.3	71.9	66.2	61.6	58.2	53.6	49.1	47.9	46.8
50°	1622.2	1139.7	81.0	65.0	60.5	55.9	51.3	45.6	41.1	38.8	37.6
52.5°	1622.2	1076.9	73.0	58.2	54.8	50.2	44.5	37.6	31.9	29.7	28.5
55°	1622.2	977.7	65.0	53.6	49.1	45.6	37.6	30.8	25.1	21.7	20.5
57.5°	1598.3	857.9	58.2	47.9	43.4	38.8	31.9	24.0	18.3	14.8	14.8
60°	1532.1	732.4	50.2	42.2	37.6	31.9	25.1	17.1	11.4	8.0	8.0
62.5°	1447.7	583.0	43.4	35.4	30.8	26.2	19.4	11.4	4.6	2.3	2.3
65°	1300.5	430.1	37.6	29.7	24.0	19.4	12.5	4.6	0.0	0.0	0.0
67.5°	1073.5	287.5	29.7	24.0	20.5	13.7	8.0	1.1	0.0	0.0	0.0
70°	755.2	163.1	22.8	17.1	14.8	9.1	2.3	0.0	0.0	0.0	0.0
72.5°	310.3	71.9	16.0	12.5	10.3	4.6	0.0	0.0	0.0	0.0	0.0
75°	84.4	31.9	10.3	6.8	5.7	1.1	0.0	0.0	0.0	0.0	0.0
77.5°	49.1	21.7	4.6	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0
80°	38.8	10.3	2.3	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	38.8	5.7	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	33.1	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.6	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)