

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: P677112

Luminaire Tested: **CCW-SA-2B-727-U-SL4-HSS**

Issue Date: 04/25/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P677112  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 04/25/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCW-SA-2B-727-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) 2700K CCT, 70 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

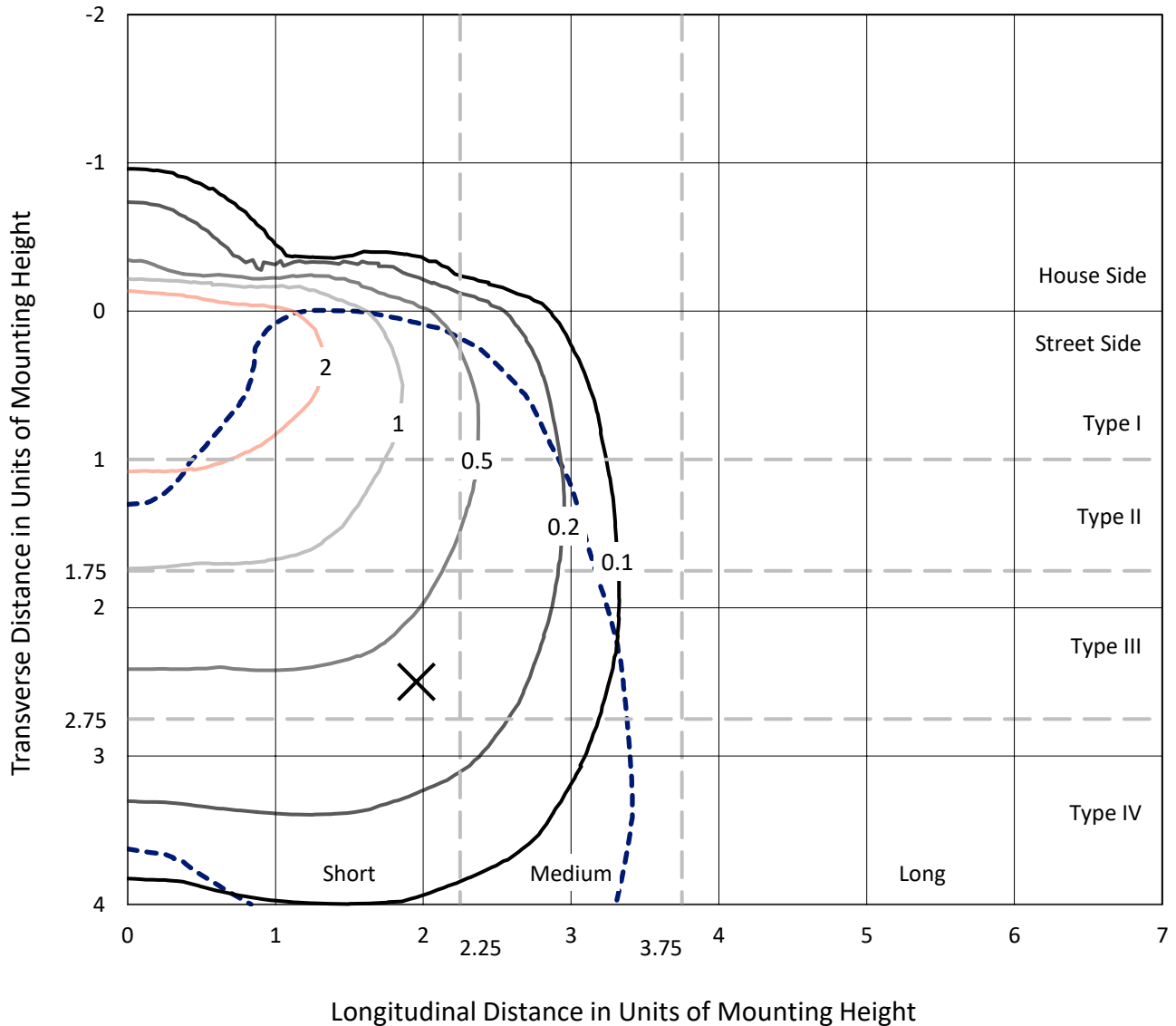
Lumens per Lamp: N/A  
Luminaire Lumens: 4770.8 lumens  
Efficiency: N/A  
Efficacy: 103.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2

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

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### Iso-Footcandle Lines of Horizontal Illumination

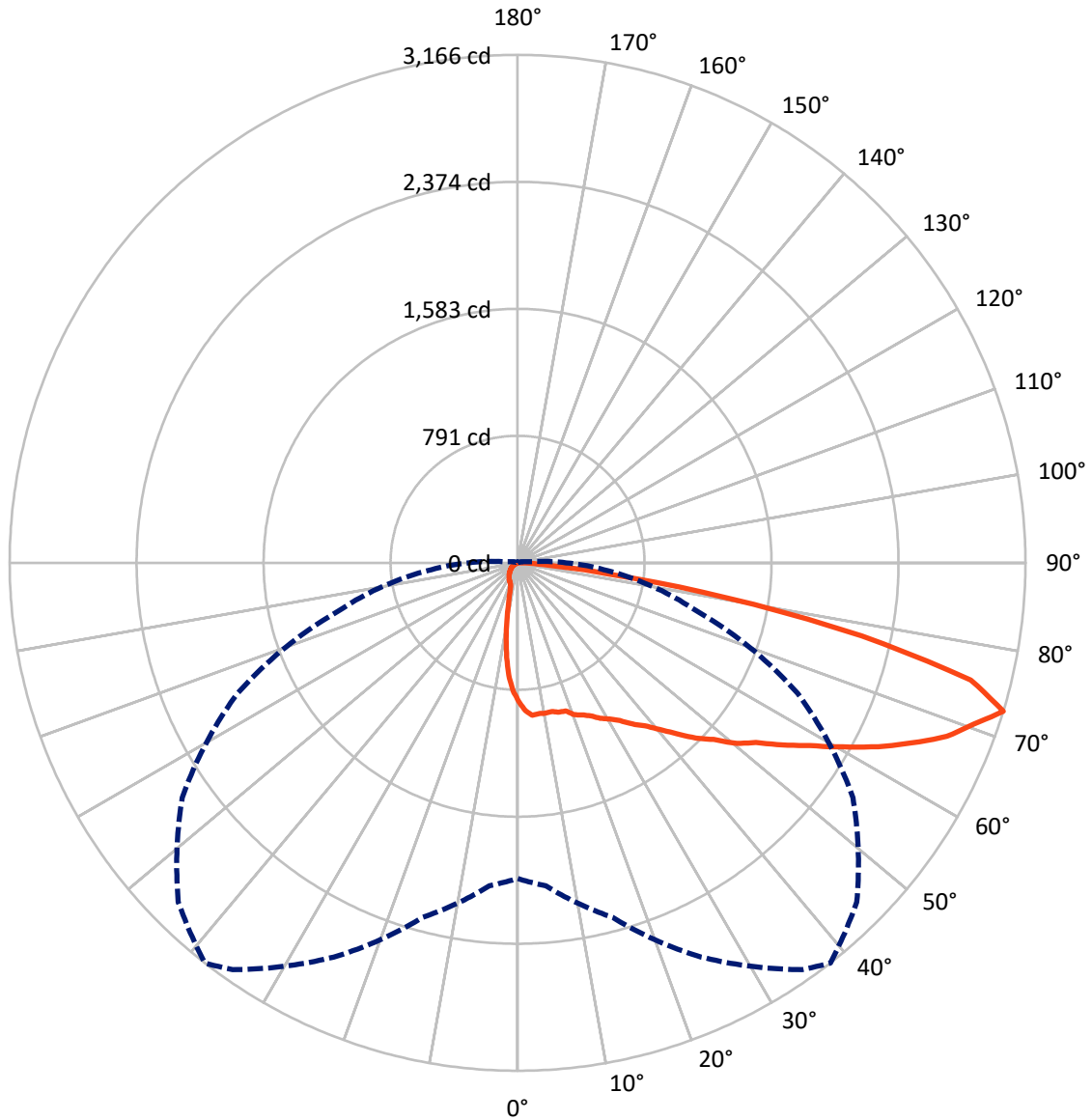
× Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 4.1 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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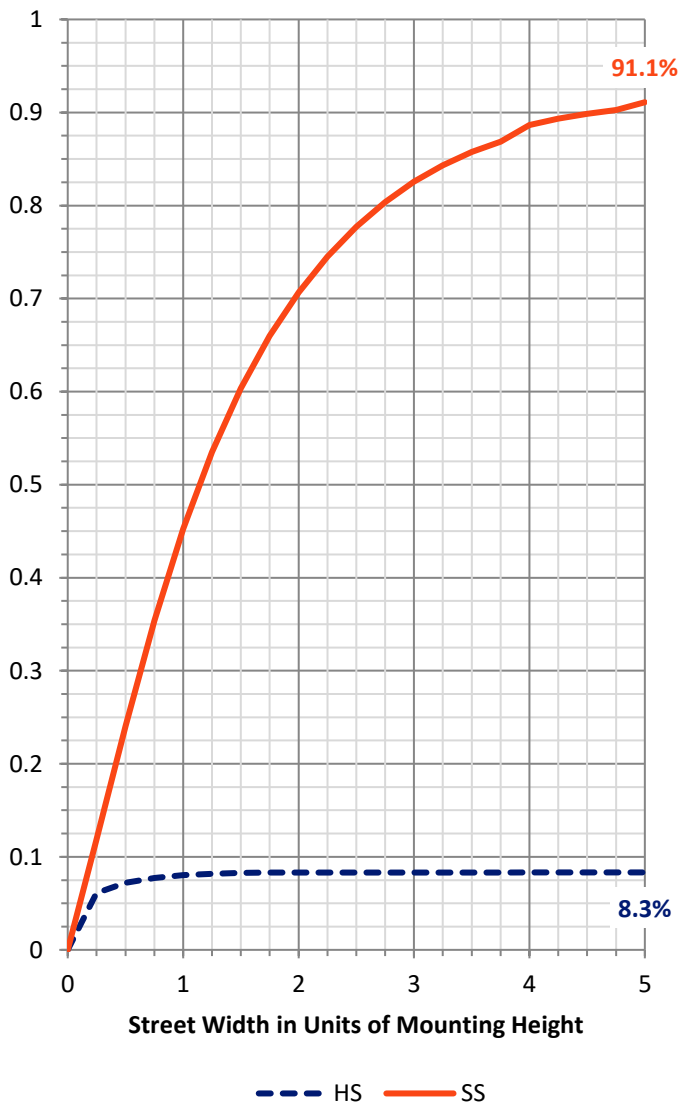
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	399.5	0.0	399.5
	% Fixture	8.4	0.0	8.4
<b>Street Side</b>	Lumens	4371.3	0.0	4371.3
	% Fixture	91.6	0.0	91.6
<b>Total</b>	Lumens	4770.8	0.0	4770.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.5	1.6
10°-20°	184.9	3.9
20°-30°	296.4	6.2
30°-40°	447.5	9.4
40°-50°	681.1	14.3
50°-60°	958.9	20.1
60°-70°	1171.3	24.6
70°-80°	850.5	17.8
80°-90°	104.7	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°	4770.8	100.0
0°-180°	4770.8	100.0

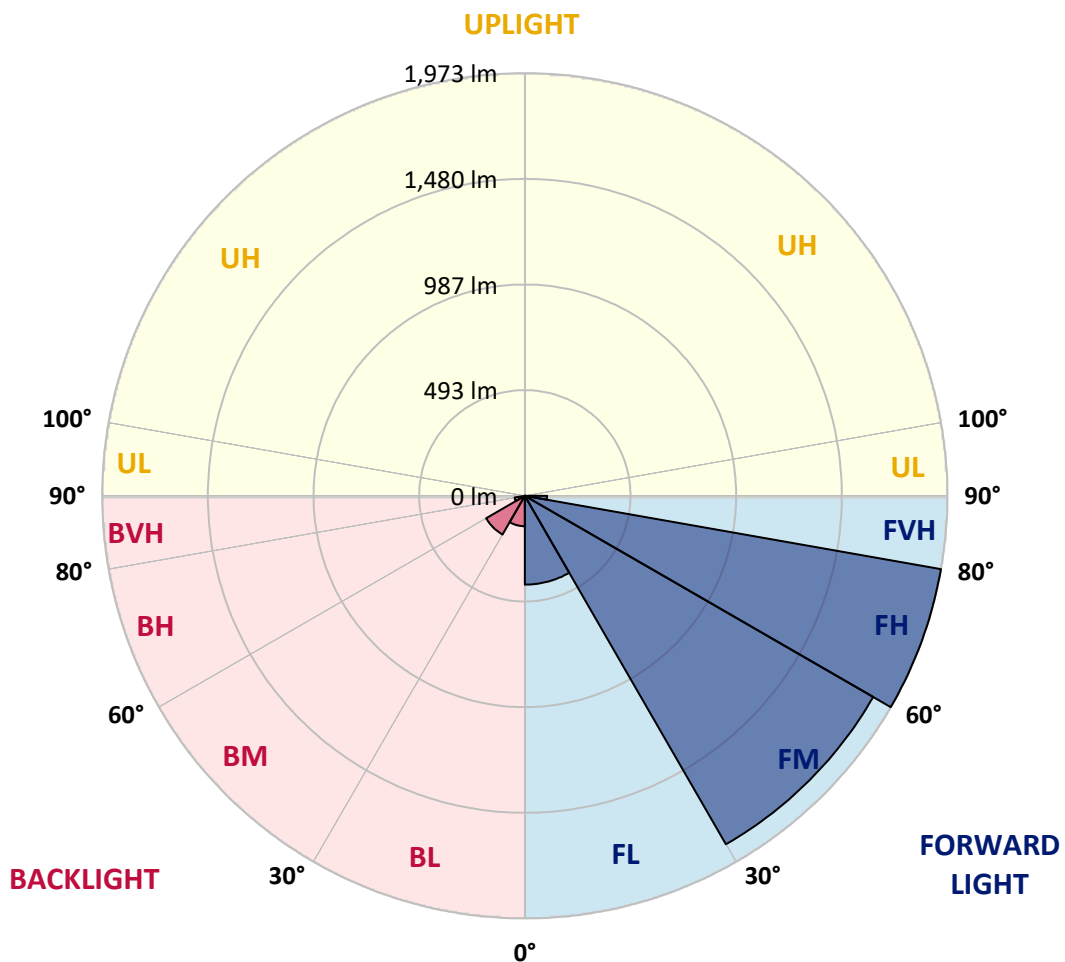


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	415.0	8.7			
FM (30°-60°)	1878.8	39.4			
FH (60°-80°)	1973.4	41.4			G2/5000
FVH (80°-90°)	104.2	2.2			G2/225
BL (0°-30°)	141.8	3.0	B1/500		
BM (30°-60°)	208.7	4.4	B0/220		
BH (60°-80°)	48.4	1.0	B0/110		G0/110
BVH (80°-90°)	0.5	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°	862.8	862.8	862.8	862.8	862.8	862.8	862.8	862.8	862.8	862.8	862.8
2.5°	947.8	947.8	956.8	947.8	944.4	923.2	924.3	913.1	901.9	886.3	871.7
5°	959.0	966.8	972.4	964.6	952.3	954.5	962.3	941.1	910.9	891.8	859.4
7.5°	954.5	971.3	966.8	962.3	954.5	948.9	937.7	928.8	914.2	896.3	858.3
10°	951.2	956.8	957.9	954.5	937.7	953.4	941.1	926.5	908.6	887.4	840.4
12.5°	938.8	938.8	948.9	941.1	943.3	951.2	945.6	942.2	923.2	905.3	863.9
15°	925.4	929.9	945.6	957.9	969.1	965.7	962.3	952.3	935.5	915.3	871.7
17.5°	928.8	931.0	955.6	978.0	972.4	970.2	988.1	966.8	950.0	927.7	878.4
20°	941.1	947.8	975.8	1004.9	1010.5	1010.5	1003.8	991.4	967.9	937.7	890.7
22.5°	953.4	955.6	1001.5	1038.4	1044.0	1029.5	1035.1	999.3	976.9	960.1	903.0
25°	1000.4	995.9	1045.2	1074.2	1070.9	1056.3	1050.7	1019.4	1010.5	980.3	929.9
27.5°	1064.2	1045.2	1093.3	1111.2	1093.3	1097.7	1082.1	1048.5	1029.5	1011.6	942.2
30°	1103.3	1114.5	1140.3	1158.2	1128.0	1129.1	1121.2	1084.3	1055.2	1059.7	983.6
32.5°	1163.8	1171.6	1190.6	1198.5	1175.0	1172.7	1164.9	1135.8	1114.5	1110.1	1039.6
35°	1228.7	1243.2	1244.3	1246.6	1225.3	1234.3	1223.1	1181.7	1192.9	1200.7	1106.7
37.5°	1292.5	1279.0	1301.4	1311.5	1288.0	1288.0	1291.3	1263.4	1283.5	1307.0	1201.8
40°	1317.1	1322.7	1361.8	1354.0	1382.0	1365.2	1377.5	1370.8	1387.6	1441.3	1336.1
42.5°	1342.8	1349.5	1402.1	1416.7	1450.2	1455.8	1473.7	1474.9	1524.1	1612.5	1464.8
45°	1392.0	1380.9	1452.5	1488.3	1543.1	1558.8	1580.0	1597.9	1675.2	1779.2	1611.4
47.5°	1436.8	1421.1	1502.8	1574.4	1641.6	1644.9	1703.1	1722.2	1813.9	1932.5	1756.8
50°	1499.5	1505.1	1539.8	1662.8	1731.1	1770.3	1810.6	1873.2	1975.0	2101.5	1862.0
52.5°	1564.4	1558.8	1617.0	1737.8	1845.2	1859.8	1950.4	2020.9	2131.7	2226.8	1909.0
55°	1643.8	1650.5	1672.9	1831.8	1968.3	2003.0	2104.9	2178.7	2299.6	2280.5	1924.7
57.5°	1723.3	1716.6	1766.9	1937.0	2122.8	2148.5	2283.9	2327.5	2409.2	2316.3	1885.5
60°	1801.6	1813.9	1835.2	2055.6	2291.7	2329.8	2437.2	2459.6	2477.5	2333.1	1855.3
62.5°	1891.1	1862.0	1928.1	2180.9	2443.9	2523.4	2608.4	2520.0	2504.3	2302.9	1785.9
65°	1935.9	1944.8	2031.0	2324.2	2646.5	2704.6	2715.8	2601.7	2521.1	2235.8	1721.0
67.5°	2005.3	2017.6	2127.2	2470.8	2854.6	2887.0	2846.8	2675.5	2506.6	2148.5	1487.2
70°	2014.2	2044.4	2255.9	2624.1	2985.5	3013.5	2982.2	2724.8	2389.1	1805.0	1101.1
72.5°	1967.2	2020.9	2287.3	2711.4	3095.2	3165.7	2990.0	2551.3	1925.8	1151.5	564.0
75°	1486.0	1530.8	2093.7	2581.6	2900.5	2917.3	2625.2	1947.1	1096.6	392.8	144.4
77.5°	769.9	847.1	1397.6	1972.8	2210.0	2192.1	1827.3	1147.0	377.1	102.9	58.2
80°	442.0	461.0	611.0	1107.8	1389.8	1321.5	1010.5	494.6	165.6	51.5	38.0
82.5°	218.2	245.1	329.0	495.7	694.9	571.8	379.3	296.5	92.9	28.0	33.6
85°	47.0	49.2	167.9	237.2	282.0	185.8	129.8	249.5	33.6	16.8	32.5
87.5°	33.6	32.5	47.0	106.3	78.3	48.1	77.2	130.9	7.8	7.8	6.7
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°	862.8	862.8	862.8	862.8	862.8	862.8	862.8	862.8	862.8	862.8	862.8
2.5°	862.8	852.7	841.5	820.2	814.6	811.3	792.3	791.1	787.8	779.9	776.6
5°	839.3	822.5	801.2	778.8	760.9	728.5	689.3	669.2	644.5	645.7	637.8
7.5°	835.9	804.6	774.4	727.4	670.3	609.9	549.4	510.3	482.3	465.5	468.9
10°	820.2	796.7	747.5	660.2	568.5	476.7	399.5	341.3	307.7	282.0	289.8
12.5°	826.9	781.1	711.7	595.3	464.4	351.4	255.1	199.2	174.6	165.6	167.9
15°	822.5	781.1	690.4	524.8	364.8	238.3	165.6	147.7	143.2	143.2	141.0
17.5°	835.9	790.0	654.6	455.4	261.8	158.9	142.1	138.8	135.4	135.4	135.4
20°	854.9	794.5	630.0	378.2	184.6	139.9	133.2	130.9	129.8	129.8	128.7
22.5°	856.0	790.0	584.1	293.2	142.1	132.0	126.4	125.3	125.3	123.1	123.1
25°	862.8	794.5	534.9	220.4	132.0	124.2	119.7	118.6	119.7	118.6	117.5
27.5°	879.5	802.3	485.6	161.1	124.2	117.5	114.1	113.0	113.0	113.0	110.8
30°	900.8	802.3	430.8	133.2	117.5	110.8	107.4	106.3	105.2	105.2	105.2
32.5°	945.6	828.1	363.7	118.6	108.5	102.9	99.6	99.6	98.5	98.5	97.4
35°	1001.5	846.0	295.4	109.7	100.7	95.1	91.8	91.8	90.6	90.6	89.5
37.5°	1070.9	890.7	226.0	102.9	92.9	87.3	83.9	83.9	83.9	82.8	82.8
40°	1169.4	936.6	167.9	94.0	85.0	79.4	77.2	76.1	75.0	75.0	72.7
42.5°	1274.6	1007.1	125.3	87.3	78.3	73.9	70.5	67.1	67.1	63.8	63.8
45°	1388.7	1068.7	101.8	79.4	71.6	66.0	62.7	60.4	57.1	54.8	54.8
47.5°	1500.6	1106.7	89.5	70.5	64.9	60.4	57.1	52.6	48.1	47.0	45.9
50°	1591.2	1117.9	79.4	63.8	59.3	54.8	50.4	44.8	40.3	38.0	36.9
52.5°	1591.2	1056.3	71.6	57.1	53.7	49.2	43.6	36.9	31.3	29.1	28.0
55°	1591.2	959.0	63.8	52.6	48.1	44.8	36.9	30.2	24.6	21.3	20.1
57.5°	1567.7	841.5	57.1	47.0	42.5	38.0	31.3	23.5	17.9	14.5	14.5
60°	1502.8	718.4	49.2	41.4	36.9	31.3	24.6	16.8	11.2	7.8	7.8
62.5°	1420.0	571.8	42.5	34.7	30.2	25.7	19.0	11.2	4.5	2.2	2.2
65°	1275.7	421.9	36.9	29.1	23.5	19.0	12.3	4.5	0.0	0.0	0.0
67.5°	1053.0	282.0	29.1	23.5	20.1	13.4	7.8	1.1	0.0	0.0	0.0
70°	740.8	160.0	22.4	16.8	14.5	9.0	2.2	0.0	0.0	0.0	0.0
72.5°	304.4	70.5	15.7	12.3	10.1	4.5	0.0	0.0	0.0	0.0	0.0
75°	82.8	31.3	10.1	6.7	5.6	1.1	0.0	0.0	0.0	0.0	0.0
77.5°	48.1	21.3	4.5	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0
80°	38.0	10.1	2.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	38.0	5.6	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	32.5	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.5	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)