

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: P677174

Luminaire Tested: **CCW-SA-1D-827-U-SL4-HSS**

Issue Date: 04/25/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P677174  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 04/25/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCW-SA-1D-827-U-SL4-HSS  
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @800mA w/  
SL4 distribution lens and House Side Shield  
Light Source: (16) 2700K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

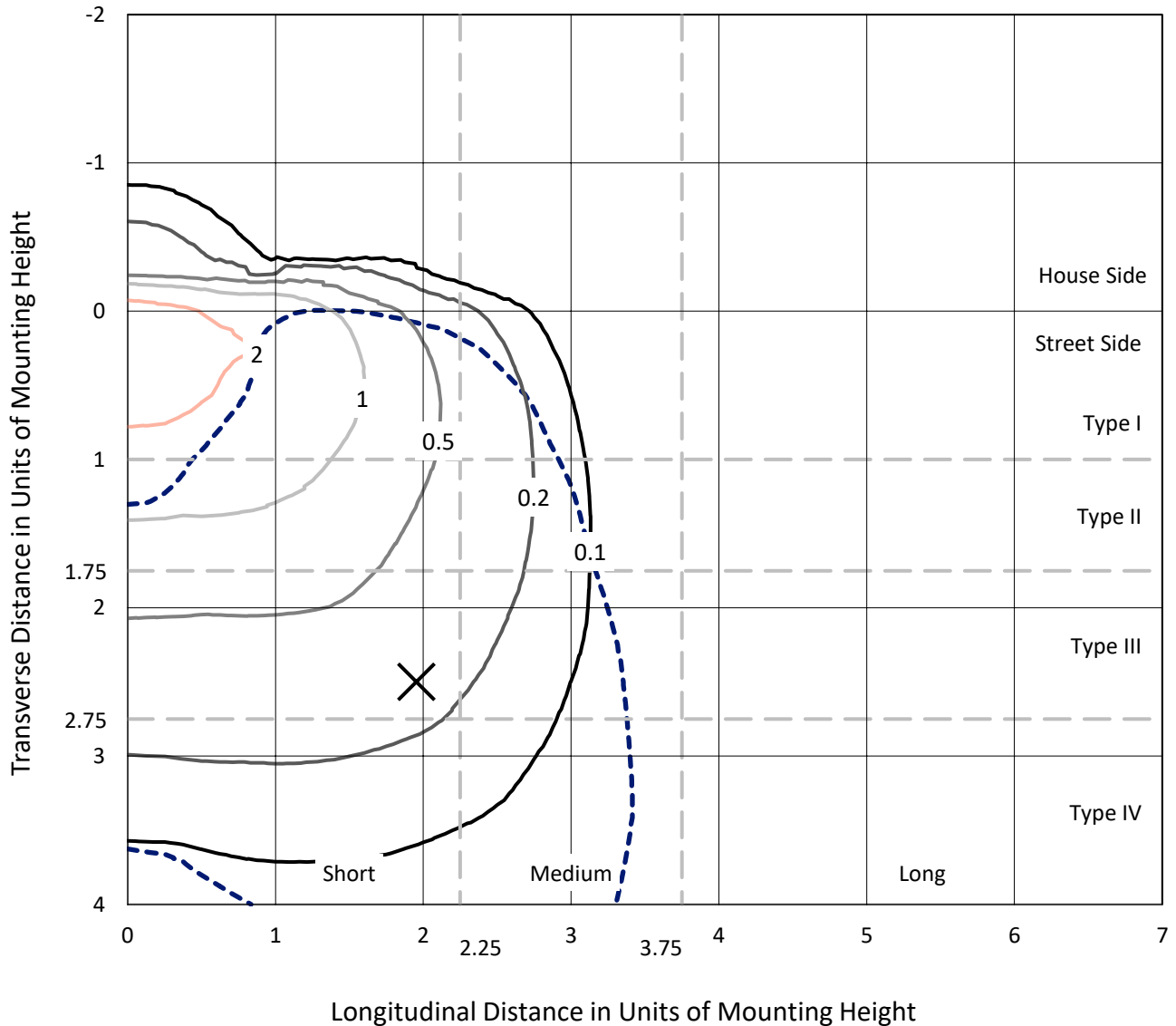
Lumens per Lamp: N/A  
Luminaire Lumens: 3386.4 lumens  
Efficiency: N/A  
Efficacy: 77.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B0 - U0 - G1

Input Watts (W): 44  
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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 CATALOG NUMBER: CCW-SA-1D-827-U-SL4-HSS

### Iso-Footcandle Lines of Horizontal Illumination

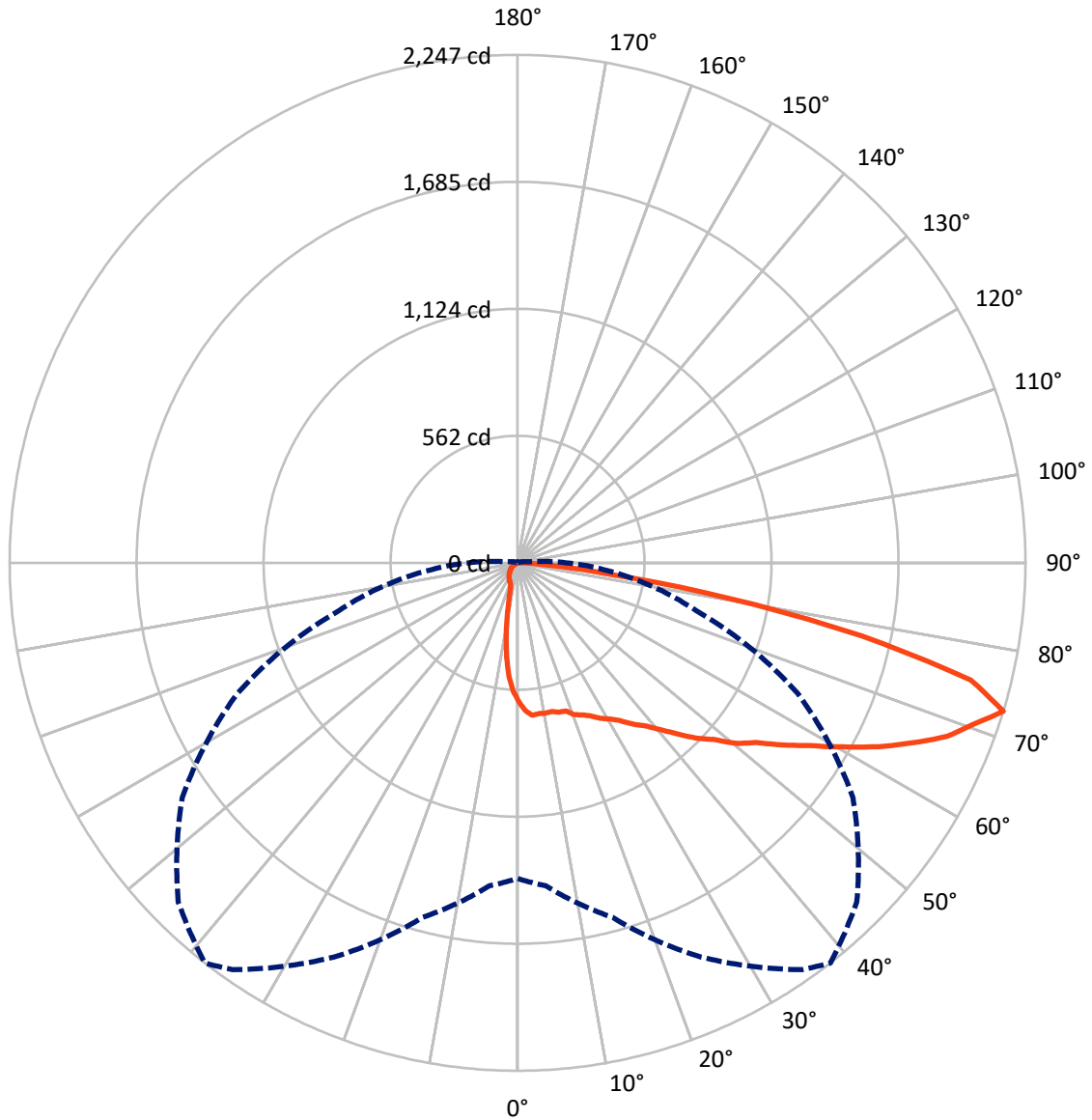
× Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 2.9 fc  
 Type IV - Short - N/A

REPORT NUMBER: P677174  
CATALOG NUMBER: CCW-SA-1D-827-U-SL4-HSS

### Luminous Intensity Polar Plot



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

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 CATALOG NUMBER: CCW-SA-1D-827-U-SL4-HSS

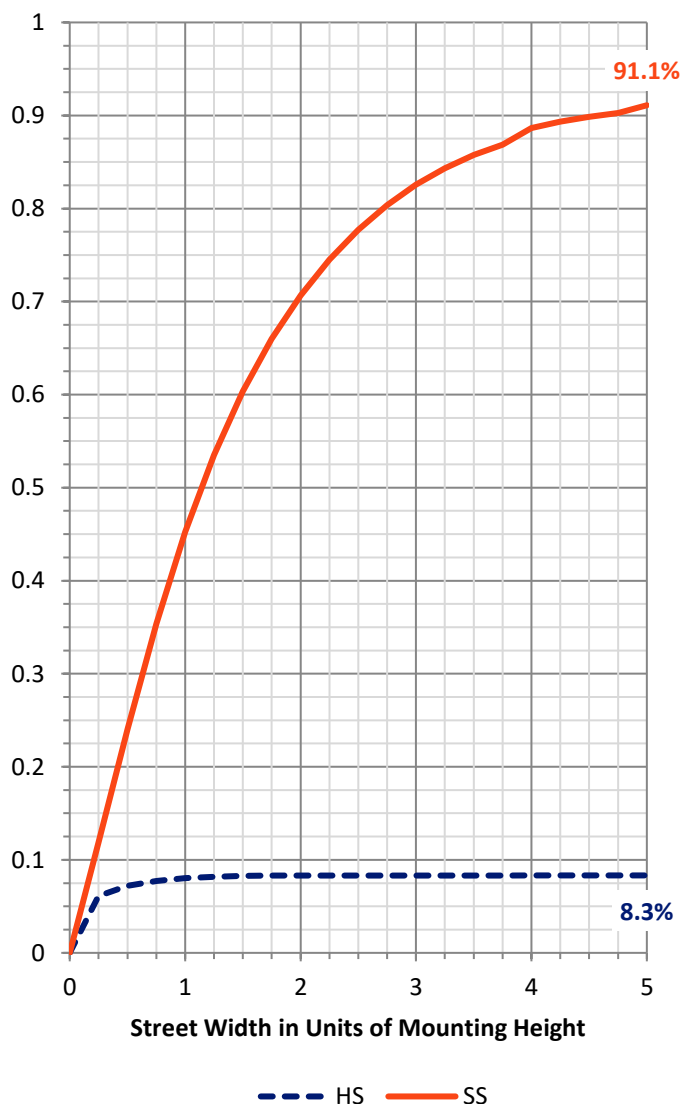
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	283.6	0.0	283.6
	% Fixture	8.4	0.0	8.4
<b>Street Side</b>	Lumens	3102.7	0.0	3102.7
	% Fixture	91.6	0.0	91.6
<b>Total</b>	Lumens	3386.4	0.0	3386.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.6	1.6
10°-20°	131.2	3.9
20°-30°	210.4	6.2
30°-40°	317.6	9.4
40°-50°	483.4	14.3
50°-60°	680.6	20.1
60°-70°	831.4	24.6
70°-80°	603.7	17.8
80°-90°	74.3	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°	3386.4	100.0
0°-180°	3386.4	100.0

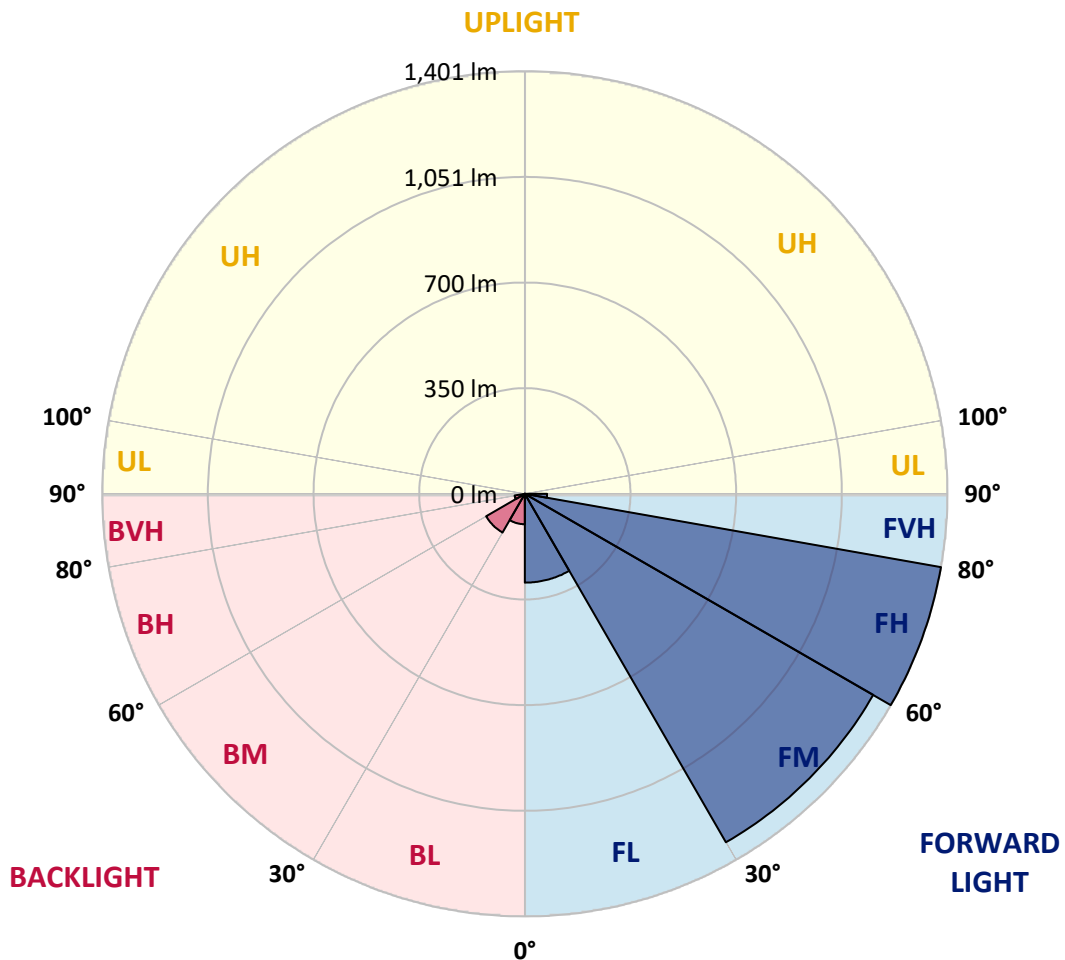


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 CATALOG NUMBER: CCW-SA-1D-827-U-SL4-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	294.5	8.7			
FM (30°-60°)	1333.5	39.4			
FH (60°-80°)	1400.7	41.4			G1/1800
FVH (80°-90°)	74.0	2.2			G1/100
BL (0°-30°)	100.7	3.0	B0/110		
BM (30°-60°)	148.1	4.4	B0/220		
BH (60°-80°)	34.4	1.0	B0/110		G0/110
BVH (80°-90°)	0.4	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B0-U0-G1**  
 Type IV Short





REPORT NUMBER: P677174

CATALOG NUMBER: CCW-SA-1D-827-U-SL4-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	612.4	612.4	612.4	612.4	612.4	612.4	612.4	612.4	612.4	612.4	612.4
2.5°	672.8	672.8	679.1	672.8	670.4	655.3	656.1	648.1	640.2	629.1	618.7
5°	680.7	686.3	690.2	684.7	675.9	677.5	683.1	668.0	646.5	633.0	610.0
7.5°	677.5	689.4	686.3	683.1	677.5	673.5	665.6	659.2	648.9	636.2	609.2
10°	675.1	679.1	679.9	677.5	665.6	676.7	668.0	657.7	645.0	629.9	596.5
12.5°	666.4	666.4	673.5	668.0	669.6	675.1	671.2	668.8	655.3	642.6	613.2
15°	656.9	660.0	671.2	679.9	687.8	685.5	683.1	675.9	664.0	649.7	618.7
17.5°	659.2	660.8	678.3	694.2	690.2	688.6	701.3	686.3	674.3	658.5	623.5
20°	668.0	672.8	692.6	713.3	717.2	717.2	712.5	703.7	687.0	665.6	632.2
22.5°	676.7	678.3	710.9	737.1	741.1	730.7	734.7	709.3	693.4	681.5	641.0
25°	710.1	706.9	741.9	762.5	760.1	749.8	745.8	723.6	717.2	695.8	660.0
27.5°	755.4	741.9	776.0	788.7	776.0	779.2	768.1	744.2	730.7	718.0	668.8
30°	783.2	791.1	809.4	822.1	800.6	801.4	795.9	769.7	749.0	752.2	698.2
32.5°	826.0	831.6	845.1	850.7	834.0	832.4	826.8	806.2	791.1	787.9	737.9
35°	872.1	882.4	883.2	884.8	869.7	876.1	868.1	838.8	846.7	852.3	785.5
37.5°	917.4	907.9	923.7	930.9	914.2	914.2	916.6	896.7	911.0	927.7	853.1
40°	934.9	938.8	966.6	961.1	980.9	969.0	977.8	973.0	984.9	1023.0	948.4
42.5°	953.1	957.9	995.2	1005.6	1029.4	1033.4	1046.1	1046.9	1081.8	1144.5	1039.7
45°	988.1	980.1	1031.0	1056.4	1095.3	1106.4	1121.5	1134.2	1189.0	1262.9	1143.8
47.5°	1019.8	1008.7	1066.7	1117.5	1165.2	1167.6	1208.9	1222.4	1287.5	1371.7	1247.0
50°	1064.3	1068.3	1092.9	1180.3	1228.7	1256.5	1285.1	1329.6	1401.9	1491.6	1321.7
52.5°	1110.4	1106.4	1147.7	1233.5	1309.8	1320.1	1384.4	1434.5	1513.1	1580.6	1355.0
55°	1166.8	1171.6	1187.4	1300.2	1397.1	1421.8	1494.0	1546.5	1632.2	1618.7	1366.2
57.5°	1223.2	1218.4	1254.2	1374.9	1506.7	1525.0	1621.1	1652.1	1710.1	1644.1	1338.4
60°	1278.8	1287.5	1302.6	1459.1	1626.7	1653.7	1729.9	1745.8	1758.5	1656.1	1316.9
62.5°	1342.3	1321.7	1368.5	1548.0	1734.7	1791.1	1851.5	1788.7	1777.6	1634.6	1267.7
65°	1374.1	1380.4	1441.6	1649.7	1878.5	1919.8	1927.7	1846.7	1789.5	1587.0	1221.6
67.5°	1423.3	1432.1	1509.9	1753.8	2026.2	2049.2	2020.6	1899.1	1779.2	1525.0	1055.6
70°	1429.7	1451.1	1601.3	1862.6	2119.1	2139.0	2116.7	1934.1	1695.8	1281.2	781.6
72.5°	1396.3	1434.5	1623.5	1924.5	2197.0	2247.0	2122.3	1810.9	1366.9	817.3	400.3
75°	1054.8	1086.6	1486.1	1832.4	2058.8	2070.7	1863.4	1382.0	778.4	278.8	102.5
77.5°	546.5	601.3	992.0	1400.3	1568.7	1556.0	1297.0	814.1	267.7	73.1	41.3
80°	313.7	327.2	433.7	786.3	986.5	938.0	717.2	351.1	117.6	36.5	27.0
82.5°	154.9	173.9	233.5	351.9	493.2	405.9	269.3	210.5	65.9	19.9	23.8
85°	33.4	34.9	119.1	168.4	200.2	131.8	92.1	177.1	23.8	11.9	23.0
87.5°	23.8	23.0	33.4	75.5	55.6	34.2	54.8	92.9	5.6	5.6	4.8
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°	612.4	612.4	612.4	612.4	612.4	612.4	612.4	612.4	612.4	612.4	612.4
2.5°	612.4	605.2	597.3	582.2	578.2	575.8	562.3	561.6	559.2	553.6	551.2
5°	595.7	583.8	568.7	552.8	540.1	517.1	489.3	475.0	457.5	458.3	452.7
7.5°	593.3	571.1	549.6	516.3	475.8	432.9	390.0	362.2	342.3	330.4	332.8
10°	582.2	565.5	530.6	468.6	403.5	338.4	283.6	242.3	218.4	200.2	205.7
12.5°	587.0	554.4	505.2	422.6	329.6	249.4	181.1	141.4	123.9	117.6	119.1
15°	583.8	554.4	490.1	372.5	258.9	169.2	117.6	104.8	101.7	101.7	100.1
17.5°	593.3	560.8	464.7	323.3	185.9	112.8	100.9	98.5	96.1	96.1	96.1
20°	606.8	563.9	447.2	268.5	131.1	99.3	94.5	92.9	92.1	92.1	91.3
22.5°	607.6	560.8	414.6	208.1	100.9	93.7	89.8	89.0	89.0	87.4	87.4
25°	612.4	563.9	379.7	156.5	93.7	88.2	85.0	84.2	85.0	84.2	83.4
27.5°	624.3	569.5	344.7	114.4	88.2	83.4	81.0	80.2	80.2	80.2	78.6
30°	639.4	569.5	305.8	94.5	83.4	78.6	76.3	75.5	74.7	74.7	74.7
32.5°	671.2	587.8	258.1	84.2	77.0	73.1	70.7	70.7	69.9	69.9	69.1
35°	710.9	600.5	209.7	77.8	71.5	67.5	65.1	65.1	64.3	64.3	63.5
37.5°	760.1	632.2	160.4	73.1	65.9	62.0	59.6	59.6	59.6	58.8	58.8
40°	830.0	664.8	119.1	66.7	60.4	56.4	54.8	54.0	53.2	53.2	51.6
42.5°	904.7	714.8	89.0	62.0	55.6	52.4	50.0	47.7	47.7	45.3	45.3
45°	985.7	758.5	72.3	56.4	50.8	46.9	44.5	42.9	40.5	38.9	38.9
47.5°	1065.1	785.5	63.5	50.0	46.1	42.9	40.5	37.3	34.2	33.4	32.6
50°	1129.5	793.5	56.4	45.3	42.1	38.9	35.7	31.8	28.6	27.0	26.2
52.5°	1129.5	749.8	50.8	40.5	38.1	34.9	31.0	26.2	22.2	20.7	19.9
55°	1129.5	680.7	45.3	37.3	34.2	31.8	26.2	21.4	17.5	15.1	14.3
57.5°	1112.8	597.3	40.5	33.4	30.2	27.0	22.2	16.7	12.7	10.3	10.3
60°	1066.7	509.9	34.9	29.4	26.2	22.2	17.5	11.9	7.9	5.6	5.6
62.5°	1007.9	405.9	30.2	24.6	21.4	18.3	13.5	7.9	3.2	1.6	1.6
65°	905.5	299.4	26.2	20.7	16.7	13.5	8.7	3.2	0.0	0.0	0.0
67.5°	747.4	200.2	20.7	16.7	14.3	9.5	5.6	0.8	0.0	0.0	0.0
70°	525.8	113.6	15.9	11.9	10.3	6.4	1.6	0.0	0.0	0.0	0.0
72.5°	216.0	50.0	11.1	8.7	7.1	3.2	0.0	0.0	0.0	0.0	0.0
75°	58.8	22.2	7.1	4.8	4.0	0.8	0.0	0.0	0.0	0.0	0.0
77.5°	34.2	15.1	3.2	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0
80°	27.0	7.1	1.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	27.0	4.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	23.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.2	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)