

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: P677216

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

Issue Date: 04/25/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P677216  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 04/25/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCW-SA-1B-850-U-SL4-HSS  
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @450mA w/  
SL4 distribution lens and House Side Shield  
Light Source: (16) 5000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

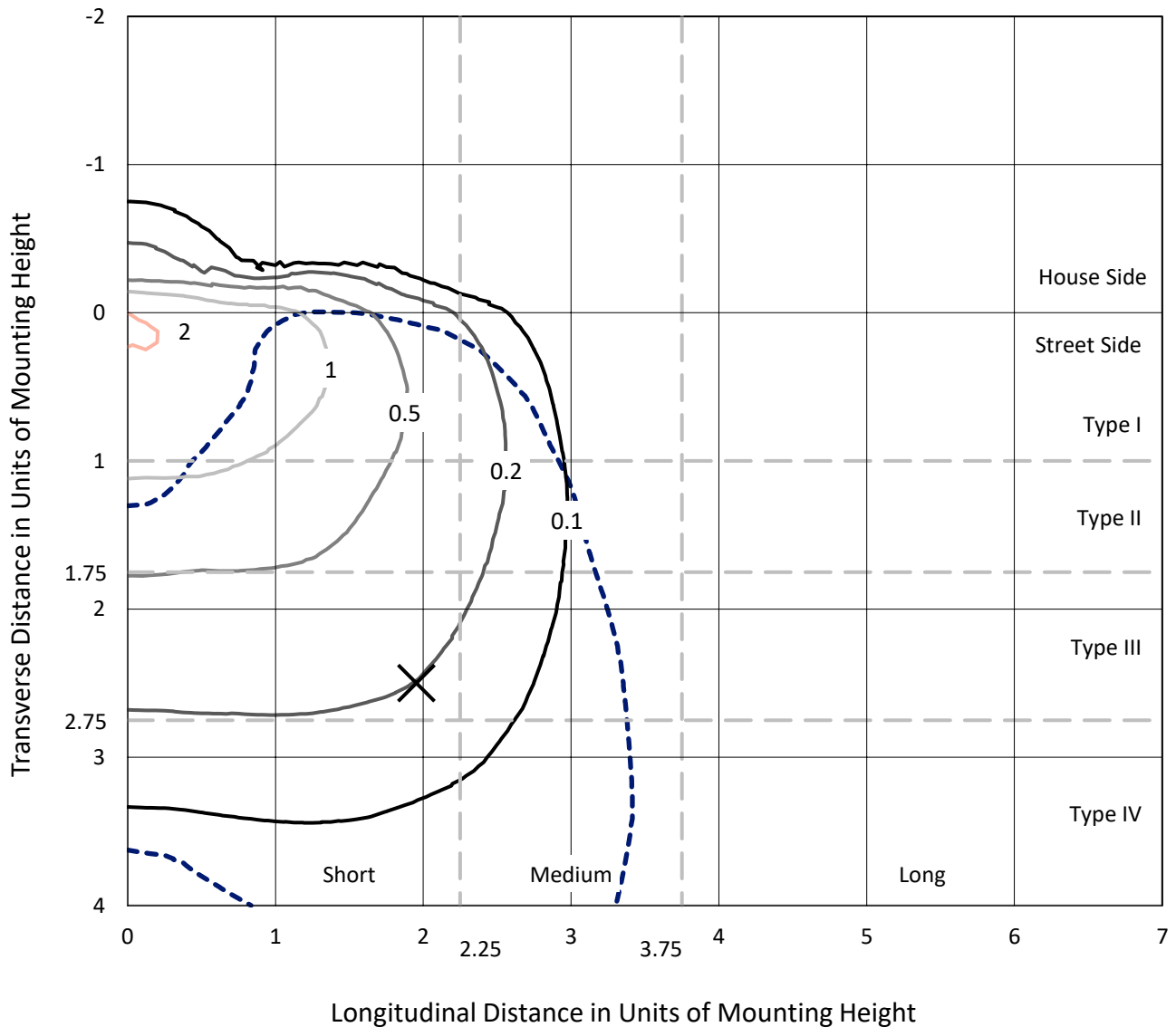
Lumens per Lamp: N/A  
Luminaire Lumens: 2489.3 lumens  
Efficiency: N/A  
Efficacy: 103.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B0 - U0 - G1

Input Watts (W): 24  
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: P677216  
 CATALOG NUMBER: CCW-SA-1B-850-U-SL4-HSS

### Iso-Footcandle Lines of Horizontal Illumination

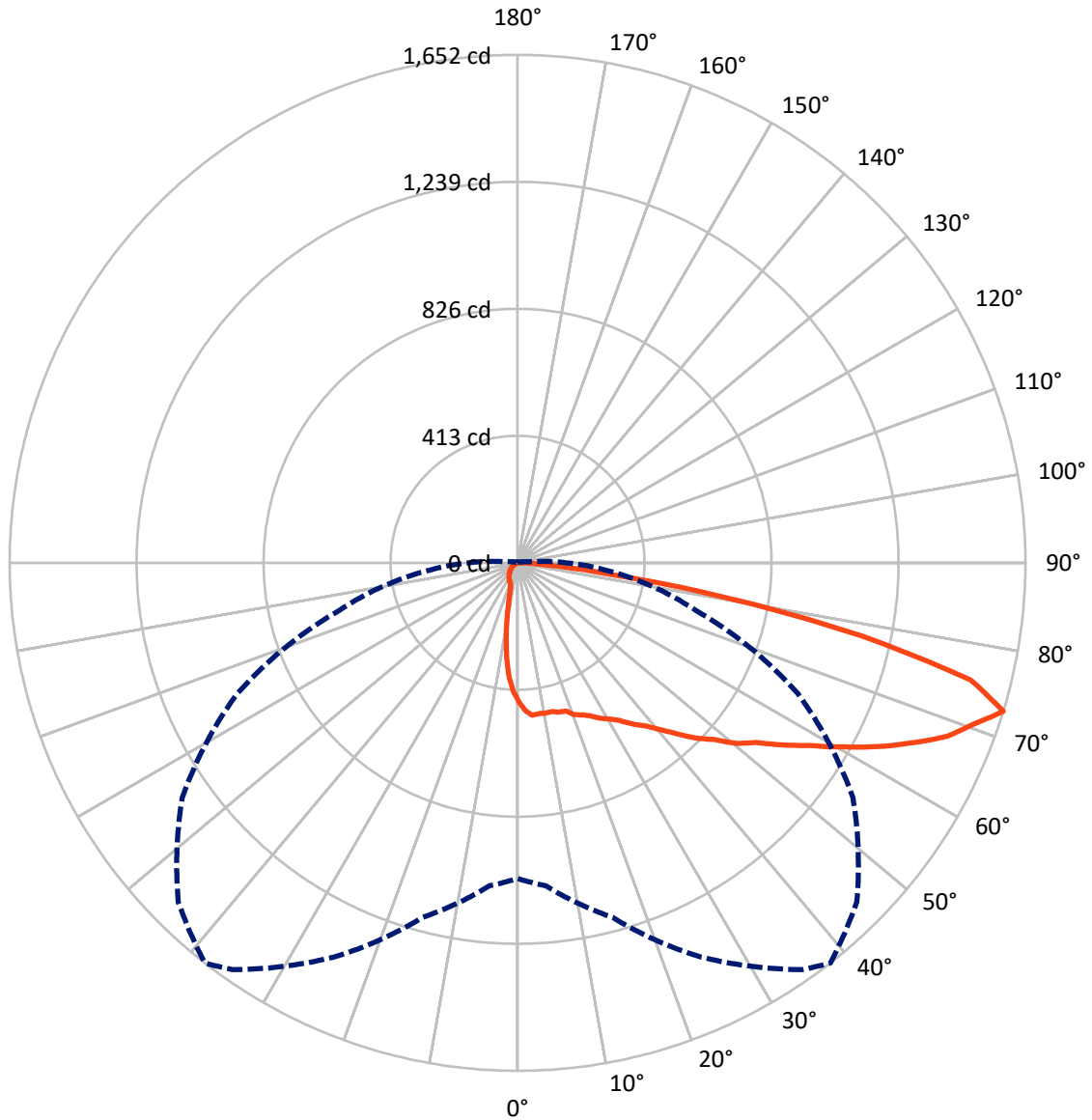
× Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 2.2 fc  
 Type IV - Short - N/A

REPORT NUMBER: P677216  
CATALOG NUMBER: CCW-SA-1B-850-U-SL4-HSS

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P677216  
 CATALOG NUMBER: CCW-SA-1B-850-U-SL4-HSS

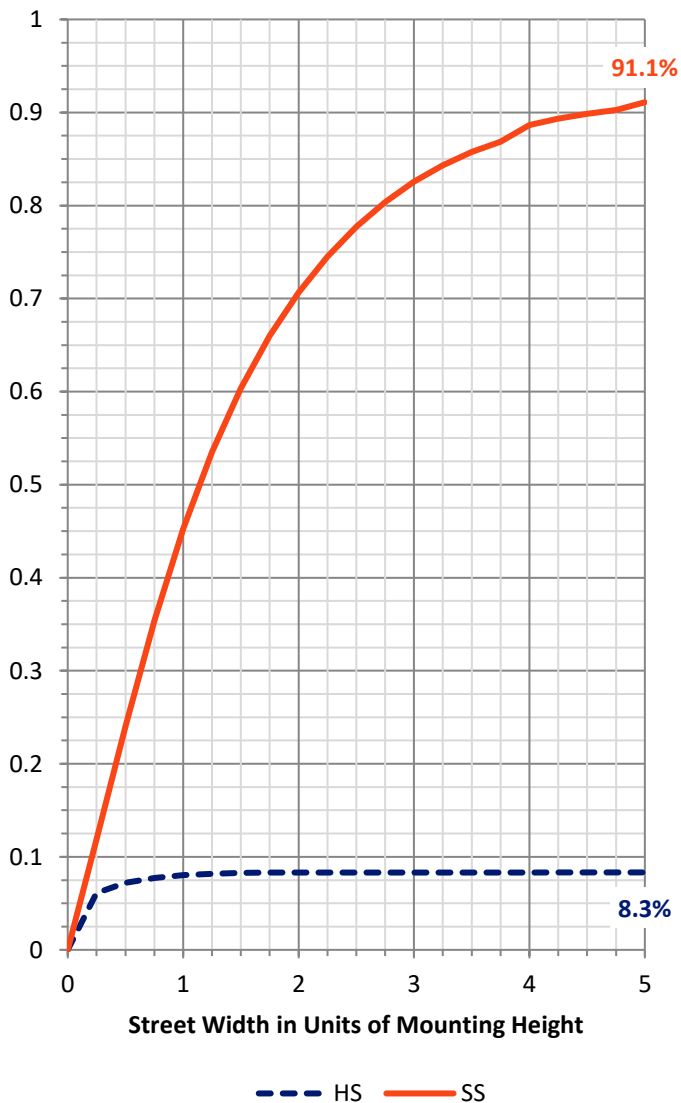
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	208.5	0.0	208.5
	% Fixture	8.4	0.0	8.4
<b>Street Side</b>	Lumens	2280.8	0.0	2280.8
	% Fixture	91.6	0.0	91.6
<b>Total</b>	Lumens	2489.3	0.0	2489.3
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.4	1.6
10°-20°	96.5	3.9
20°-30°	154.7	6.2
30°-40°	233.5	9.4
40°-50°	355.4	14.3
50°-60°	500.3	20.1
60°-70°	611.2	24.6
70°-80°	443.8	17.8
80°-90°	54.7	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°	2489.3	100.0
0°-180°	2489.3	100.0

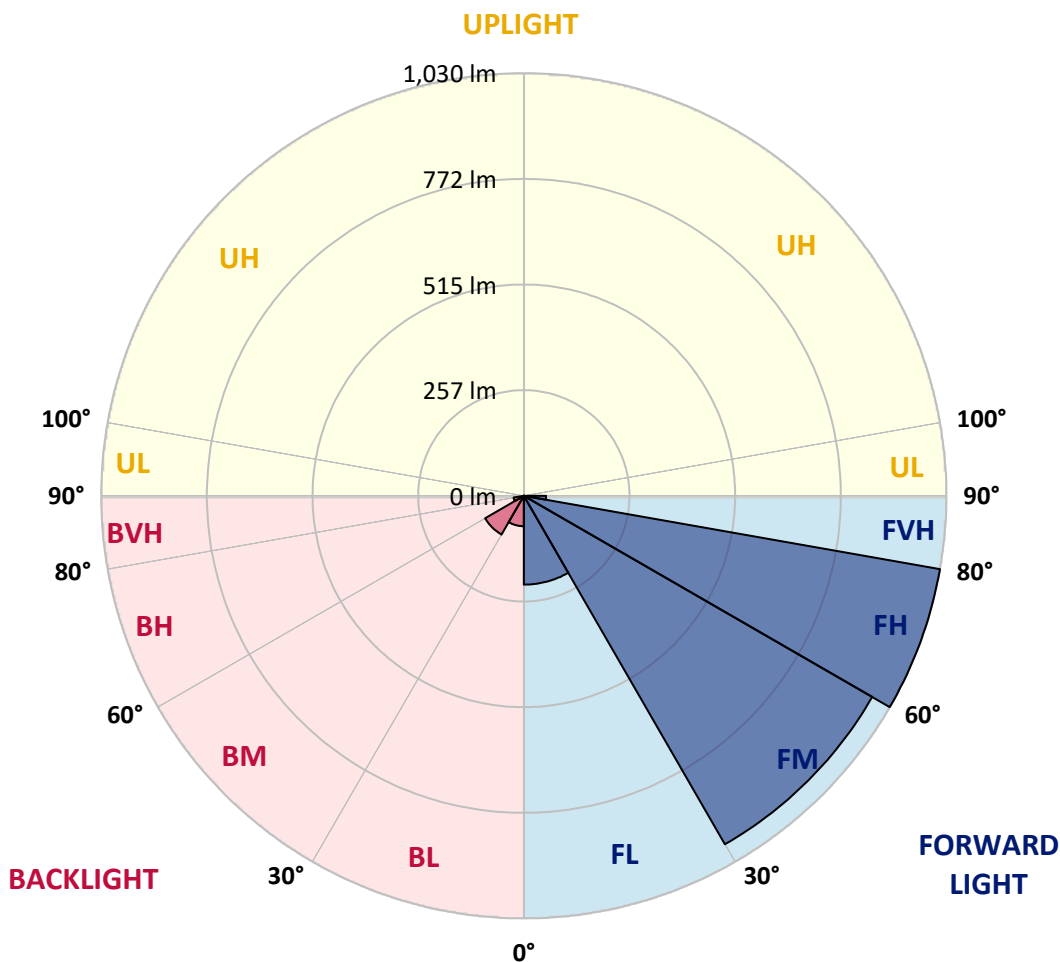


REPORT NUMBER: P677216  
 CATALOG NUMBER: CCW-SA-1B-850-U-SL4-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	216.5	8.7			
FM (30°-60°)	980.3	39.4			
FH (60°-80°)	1029.7	41.4			G1/1800
FVH (80°-90°)	54.4	2.2			G1/100
BL (0°-30°)	74.0	3.0	B0/110		
BM (30°-60°)	108.9	4.4	B0/220		
BH (60°-80°)	25.3	1.0	B0/110		G0/110
BVH (80°-90°)	0.3	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: P677216

CATALOG NUMBER: CCW-SA-1B-850-U-SL4-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	450.2	450.2	450.2	450.2	450.2	450.2	450.2	450.2	450.2	450.2	450.2
2.5°	494.5	494.5	499.2	494.5	492.8	481.7	482.3	476.4	470.6	462.4	454.8
5°	500.4	504.5	507.4	503.3	496.9	498.0	502.1	491.0	475.3	465.3	448.4
7.5°	498.0	506.8	504.5	502.1	498.0	495.1	489.3	484.6	477.0	467.7	447.8
10°	496.3	499.2	499.8	498.0	489.3	497.5	491.0	483.4	474.1	463.0	438.5
12.5°	489.9	489.9	495.1	491.0	492.2	496.3	493.4	491.6	481.7	472.4	450.8
15°	482.9	485.2	493.4	499.8	505.6	503.9	502.1	496.9	488.1	477.6	454.8
17.5°	484.6	485.8	498.6	510.3	507.4	506.2	515.6	504.5	495.7	484.0	458.3
20°	491.0	494.5	509.1	524.3	527.2	527.2	523.7	517.3	505.1	489.3	464.8
22.5°	497.5	498.6	522.6	541.8	544.8	537.2	540.1	521.4	509.7	501.0	471.2
25°	522.0	519.6	545.3	560.5	558.8	551.2	548.3	531.9	527.2	511.5	485.2
27.5°	555.3	545.3	570.4	579.8	570.4	572.8	564.6	547.1	537.2	527.8	491.6
30°	575.7	581.5	595.0	604.3	588.5	589.1	585.0	565.8	550.6	552.9	513.2
32.5°	607.2	611.3	621.2	625.3	613.1	611.9	607.8	592.6	581.5	579.2	542.4
35°	641.1	648.7	649.3	650.4	639.3	644.0	638.2	616.6	622.4	626.5	577.5
37.5°	674.4	667.4	679.0	684.3	672.0	672.0	673.8	659.2	669.7	682.0	627.1
40°	687.2	690.1	710.6	706.5	721.1	712.3	718.7	715.2	724.0	752.0	697.1
42.5°	700.6	704.2	731.6	739.2	756.7	759.6	769.0	769.5	795.2	841.4	764.3
45°	726.3	720.5	757.9	776.6	805.2	813.3	824.4	833.8	874.1	928.4	840.8
47.5°	749.7	741.5	784.1	821.5	856.5	858.3	888.7	898.6	946.5	1008.4	916.7
50°	782.4	785.3	803.4	867.6	903.3	923.7	944.7	977.4	1030.5	1096.5	971.6
52.5°	816.3	813.3	843.7	906.8	962.8	970.4	1017.7	1054.5	1112.3	1161.9	996.1
55°	857.7	861.2	872.9	955.8	1027.0	1045.1	1098.3	1136.8	1199.9	1189.9	1004.3
57.5°	899.2	895.7	921.9	1010.7	1107.6	1121.0	1191.7	1214.5	1257.1	1208.6	983.8
60°	940.0	946.5	957.6	1072.6	1195.8	1215.6	1271.7	1283.4	1292.7	1217.4	968.1
62.5°	986.7	971.6	1006.0	1138.0	1275.2	1316.6	1361.0	1314.9	1306.7	1201.6	931.9
65°	1010.1	1014.8	1059.7	1212.7	1380.9	1411.2	1417.1	1357.5	1315.5	1166.6	898.0
67.5°	1046.3	1052.7	1109.9	1289.2	1489.5	1506.4	1485.4	1396.0	1307.9	1121.0	776.0
70°	1051.0	1066.7	1177.1	1369.2	1557.8	1572.4	1556.0	1421.7	1246.6	941.8	574.5
72.5°	1026.5	1054.5	1193.4	1414.7	1615.0	1651.8	1560.1	1331.2	1004.8	600.8	294.3
75°	775.4	798.7	1092.4	1347.0	1513.4	1522.2	1369.8	1015.9	572.2	204.9	75.3
77.5°	401.7	442.0	729.3	1029.4	1153.2	1143.8	953.5	598.5	196.8	53.7	30.4
80°	230.6	240.6	318.8	578.0	725.2	689.6	527.2	258.1	86.4	26.9	19.9
82.5°	113.9	127.9	171.7	258.7	362.6	298.4	197.9	154.7	48.5	14.6	17.5
85°	24.5	25.7	87.6	123.8	147.1	96.9	67.7	130.2	17.5	8.8	16.9
87.5°	17.5	16.9	24.5	55.5	40.9	25.1	40.3	68.3	4.1	4.1	3.5
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: P677216

CATALOG NUMBER: CCW-SA-1B-850-U-SL4-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	450.2	450.2	450.2	450.2	450.2	450.2	450.2	450.2	450.2	450.2	450.2
2.5°	450.2	444.9	439.1	428.0	425.1	423.3	413.4	412.8	411.0	407.0	405.2
5°	437.9	429.1	418.1	406.4	397.0	380.1	359.7	349.2	336.3	336.9	332.8
7.5°	436.2	419.8	404.0	379.5	349.7	318.2	286.7	266.2	251.6	242.9	244.6
10°	428.0	415.7	390.0	344.5	296.6	248.7	208.4	178.1	160.6	147.1	151.2
12.5°	431.5	407.5	371.3	310.6	242.3	183.3	133.1	103.9	91.1	86.4	87.6
15°	429.1	407.5	360.3	273.8	190.3	124.4	86.4	77.1	74.7	74.7	73.6
17.5°	436.2	412.2	341.6	237.6	136.6	82.9	74.2	72.4	70.6	70.6	70.6
20°	446.1	414.6	328.7	197.3	96.3	73.0	69.5	68.3	67.7	67.7	67.1
22.5°	446.7	412.2	304.8	153.0	74.2	68.9	66.0	65.4	65.4	64.2	64.2
25°	450.2	414.6	279.1	115.0	68.9	64.8	62.5	61.9	62.5	61.9	61.3
27.5°	458.9	418.6	253.4	84.1	64.8	61.3	59.6	59.0	59.0	59.0	57.8
30°	470.0	418.6	224.8	69.5	61.3	57.8	56.1	55.5	54.9	54.9	54.9
32.5°	493.4	432.1	189.8	61.9	56.6	53.7	52.0	52.0	51.4	51.4	50.8
35°	522.6	441.4	154.1	57.2	52.5	49.6	47.9	47.9	47.3	47.3	46.7
37.5°	558.8	464.8	117.9	53.7	48.5	45.5	43.8	43.8	43.8	43.2	43.2
40°	610.1	488.7	87.6	49.0	44.4	41.5	40.3	39.7	39.1	39.1	38.0
42.5°	665.0	525.5	65.4	45.5	40.9	38.5	36.8	35.0	35.0	33.3	33.3
45°	724.6	557.6	53.1	41.5	37.4	34.4	32.7	31.5	29.8	28.6	28.6
47.5°	783.0	577.5	46.7	36.8	33.9	31.5	29.8	27.4	25.1	24.5	23.9
50°	830.3	583.3	41.5	33.3	30.9	28.6	26.3	23.4	21.0	19.9	19.3
52.5°	830.3	551.2	37.4	29.8	28.0	25.7	22.8	19.3	16.3	15.2	14.6
55°	830.3	500.4	33.3	27.4	25.1	23.4	19.3	15.8	12.8	11.1	10.5
57.5°	818.0	439.1	29.8	24.5	22.2	19.9	16.3	12.3	9.3	7.6	7.6
60°	784.1	374.8	25.7	21.6	19.3	16.3	12.8	8.8	5.8	4.1	4.1
62.5°	740.9	298.4	22.2	18.1	15.8	13.4	9.9	5.8	2.3	1.2	1.2
65°	665.6	220.1	19.3	15.2	12.3	9.9	6.4	2.3	0.0	0.0	0.0
67.5°	549.4	147.1	15.2	12.3	10.5	7.0	4.1	0.6	0.0	0.0	0.0
70°	386.5	83.5	11.7	8.8	7.6	4.7	1.2	0.0	0.0	0.0	0.0
72.5°	158.8	36.8	8.2	6.4	5.3	2.3	0.0	0.0	0.0	0.0	0.0
75°	43.2	16.3	5.3	3.5	2.9	0.6	0.0	0.0	0.0	0.0	0.0
77.5°	25.1	11.1	2.3	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0
80°	19.9	5.3	1.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	19.9	2.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	16.9	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.3	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)