

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: P677204

Luminaire Tested: **CCW-SA-1A-840-U-SL4-HSS**

Issue Date: 04/25/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P677204  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 04/25/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCW-SA-1A-840-U-SL4-HSS  
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @350mA w/  
SL4 distribution lens and House Side Shield  
Light Source: (16) 4000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

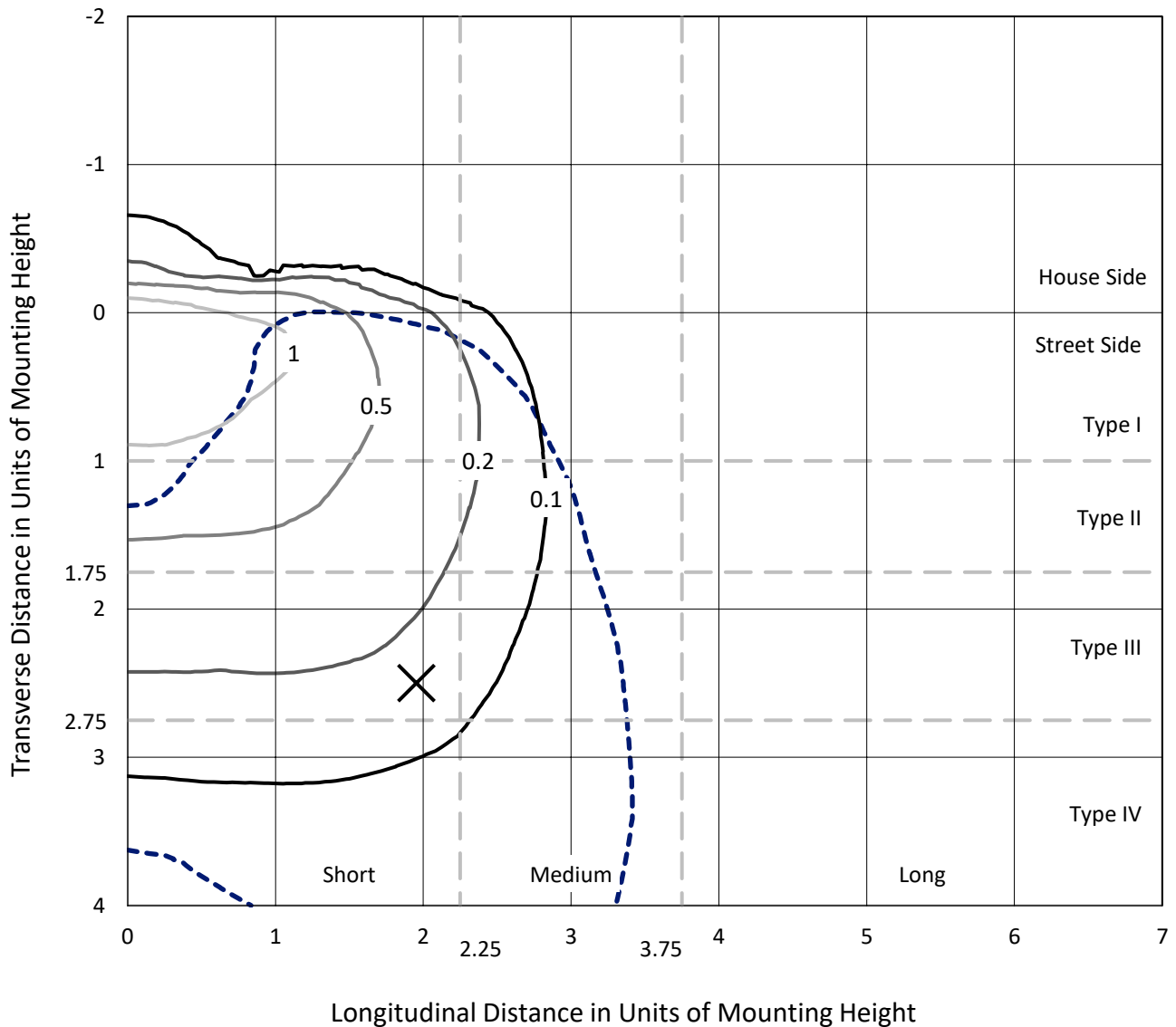
Lumens per Lamp: N/A  
Luminaire Lumens: 1926.8 lumens  
Efficiency: N/A  
Efficacy: 107.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B0 - U0 - G1

Input Watts (W): 18  
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

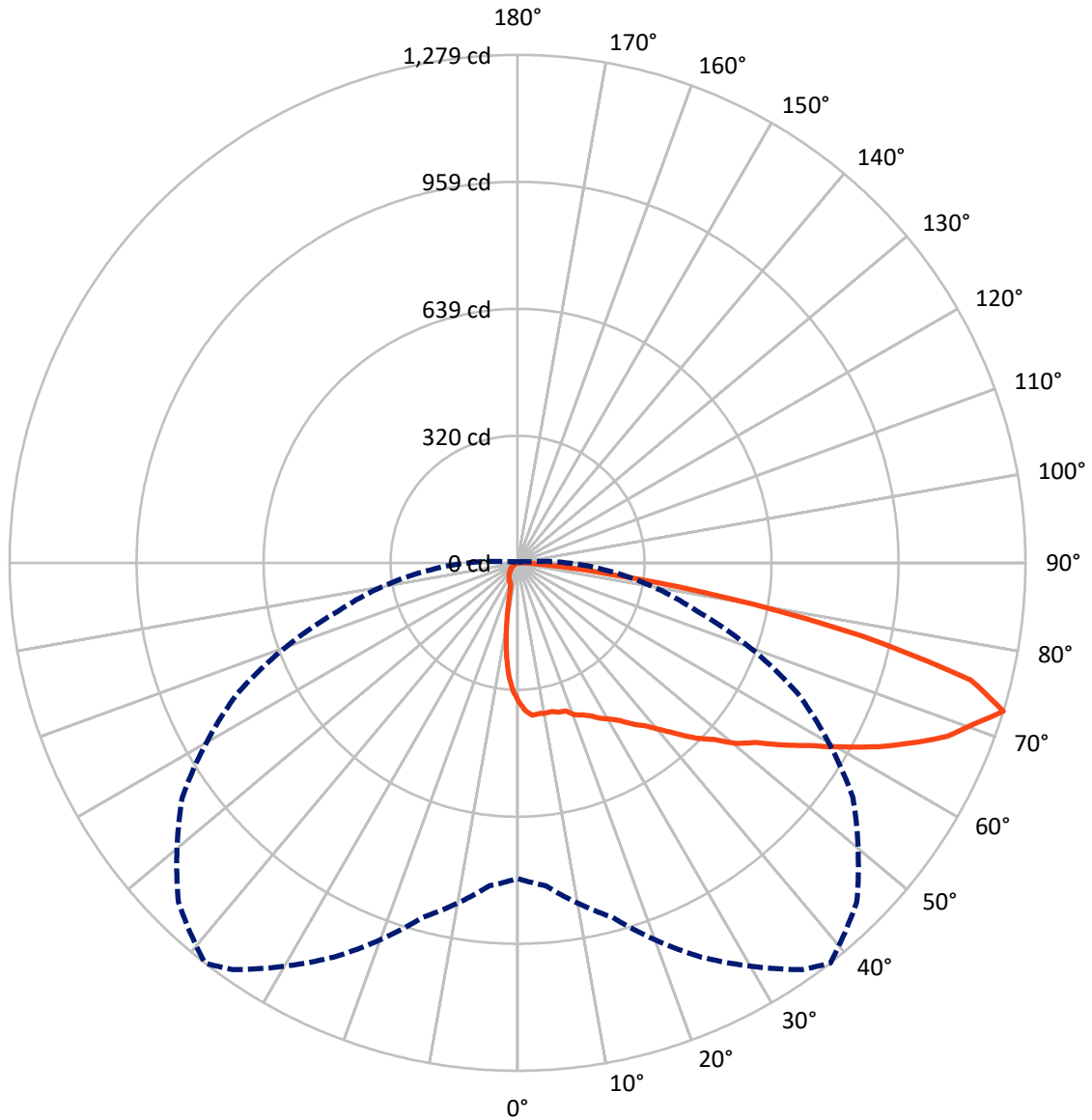
× Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 1.7 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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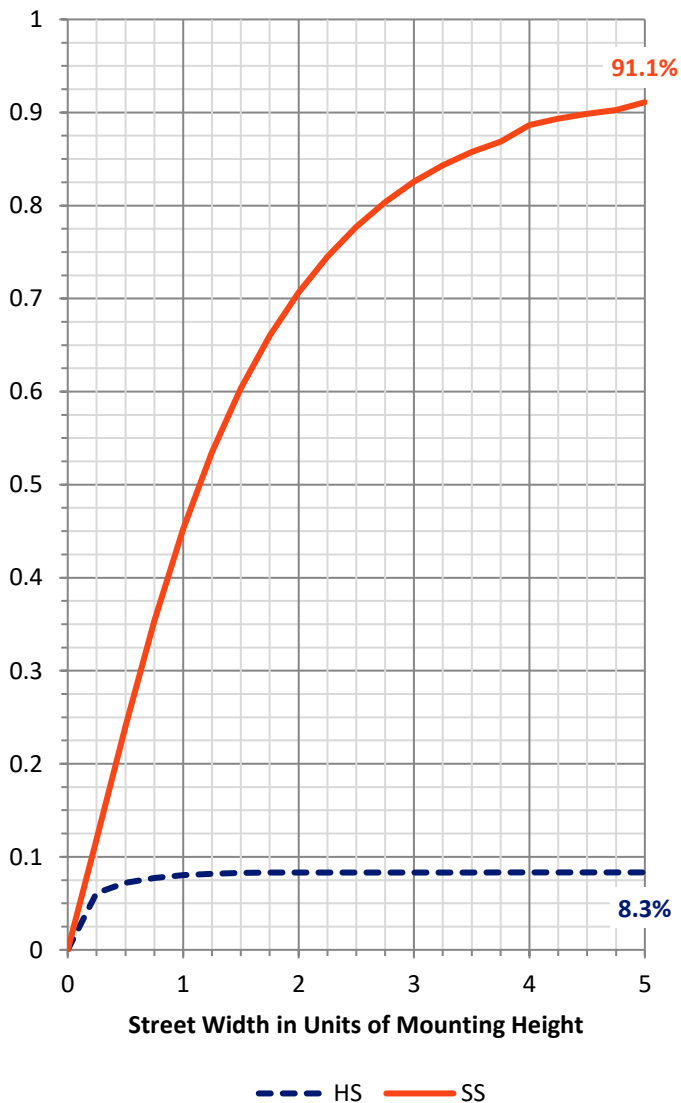
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	161.4	0.0	161.4
	% Fixture	8.4	0.0	8.4
<b>Street Side</b>	Lumens	1765.4	0.0	1765.4
	% Fixture	91.6	0.0	91.6
<b>Total</b>	Lumens	1926.8	0.0	1926.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	30.5	1.6
10°-20°	74.7	3.9
20°-30°	119.7	6.2
30°-40°	180.7	9.4
40°-50°	275.1	14.3
50°-60°	387.3	20.1
60°-70°	473.0	24.6
70°-80°	343.5	17.8
80°-90°	42.3	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°	1926.8	100.0
0°-180°	1926.8	100.0

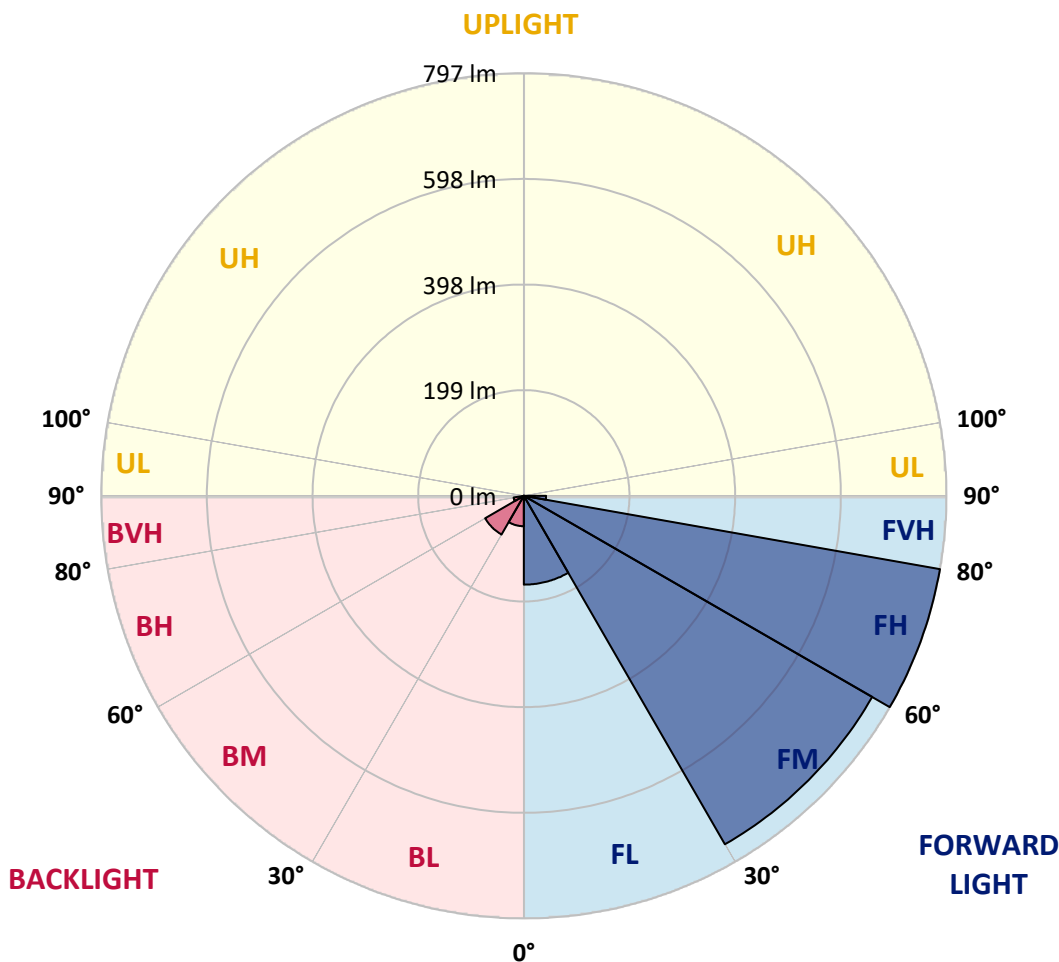


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	167.6	8.7			
FM (30°-60°)	758.8	39.4			
FH (60°-80°)	797.0	41.4			G1/1800
FVH (80°-90°)	42.1	2.2			G1/100
BL (0°-30°)	57.3	3.0	B0/110		
BM (30°-60°)	84.3	4.4	B0/220		
BH (60°-80°)	19.6	1.0	B0/110		G0/110
BVH (80°-90°)	0.2	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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	348.4	348.4	348.4	348.4	348.4	348.4	348.4	348.4	348.4	348.4	348.4
2.5°	382.8	382.8	386.4	382.8	381.4	372.8	373.3	368.8	364.2	357.9	352.0
5°	387.3	390.5	392.7	389.6	384.6	385.5	388.7	380.1	367.9	360.2	347.1
7.5°	385.5	392.3	390.5	388.7	385.5	383.2	378.7	375.1	369.2	362.0	346.6
10°	384.1	386.4	386.8	385.5	378.7	385.0	380.1	374.2	367.0	358.4	339.4
12.5°	379.2	379.2	383.2	380.1	381.0	384.1	381.9	380.5	372.8	365.6	348.9
15°	373.7	375.5	381.9	386.8	391.4	390.0	388.7	384.6	377.8	369.7	352.0
17.5°	375.1	376.0	385.9	395.0	392.7	391.8	399.0	390.5	383.7	374.6	354.8
20°	380.1	382.8	394.1	405.8	408.1	408.1	405.4	400.4	390.9	378.7	359.7
22.5°	385.0	385.9	404.5	419.4	421.6	415.8	418.0	403.6	394.5	387.7	364.7
25°	404.0	402.2	422.1	433.8	432.5	426.6	424.4	411.7	408.1	395.9	375.5
27.5°	429.8	422.1	441.5	448.8	441.5	443.3	437.0	423.5	415.8	408.5	380.5
30°	445.6	450.1	460.5	467.7	455.5	456.0	452.8	437.9	426.2	428.0	397.2
32.5°	470.0	473.2	480.8	484.0	474.5	473.6	470.5	458.7	450.1	448.3	419.8
35°	496.2	502.1	502.5	503.4	494.9	498.5	494.0	477.2	481.7	484.9	447.0
37.5°	522.0	516.5	525.6	529.7	520.2	520.2	521.5	510.2	518.4	527.8	485.4
40°	531.9	534.2	550.0	546.8	558.1	551.3	556.3	553.6	560.4	582.1	539.6
42.5°	542.3	545.0	566.3	572.1	585.7	588.0	595.2	595.6	615.5	651.2	591.6
45°	562.2	557.7	586.6	601.1	623.2	629.5	638.1	645.3	676.5	718.6	650.8
47.5°	580.3	573.9	606.9	635.9	663.0	664.3	687.8	695.5	732.6	780.5	709.5
50°	605.6	607.8	621.8	671.6	699.1	714.9	731.2	756.5	797.6	848.7	752.0
52.5°	631.8	629.5	653.0	701.8	745.2	751.1	787.7	816.2	860.9	899.3	771.0
55°	663.9	666.6	675.6	739.8	794.9	808.9	850.1	879.9	928.7	921.0	777.3
57.5°	696.0	693.2	713.6	782.3	857.3	867.7	922.4	940.0	973.0	935.5	761.5
60°	727.6	732.6	741.2	830.2	925.5	940.9	984.3	993.3	1000.6	942.3	749.3
62.5°	763.7	752.0	778.7	880.8	987.0	1019.1	1053.4	1017.7	1011.4	930.1	721.3
65°	781.8	785.4	820.2	938.6	1068.8	1092.3	1096.8	1050.7	1018.2	902.9	695.1
67.5°	809.8	814.8	859.1	997.8	1152.9	1166.0	1149.7	1080.5	1012.3	867.7	600.6
70°	813.5	825.7	911.1	1059.8	1205.7	1217.0	1204.4	1100.4	964.9	729.0	444.7
72.5°	794.5	816.2	923.7	1095.0	1250.0	1278.5	1207.5	1030.4	777.8	465.0	227.8
75°	600.2	618.2	845.5	1042.6	1171.4	1178.2	1060.2	786.3	442.9	158.6	58.3
77.5°	310.9	342.1	564.5	796.7	892.5	885.3	738.0	463.2	152.3	41.6	23.5
80°	178.5	186.2	246.7	447.4	561.3	533.7	408.1	199.7	66.9	20.8	15.4
82.5°	88.1	99.0	132.9	200.2	280.6	230.9	153.2	119.8	37.5	11.3	13.6
85°	19.0	19.9	67.8	95.8	113.9	75.0	52.4	100.8	13.6	6.8	13.1
87.5°	13.6	13.1	19.0	42.9	31.6	19.4	31.2	52.9	3.2	3.2	2.7
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°	348.4	348.4	348.4	348.4	348.4	348.4	348.4	348.4	348.4	348.4	348.4
2.5°	348.4	344.4	339.8	331.3	329.0	327.6	320.0	319.5	318.2	315.0	313.6
5°	338.9	332.2	323.6	314.5	307.3	294.2	278.4	270.2	260.3	260.8	257.6
7.5°	337.6	324.9	312.7	293.7	270.7	246.3	221.9	206.1	194.8	188.0	189.4
10°	331.3	321.8	301.9	266.6	229.6	192.5	161.3	137.8	124.3	113.9	117.0
12.5°	334.0	315.4	287.4	240.4	187.5	141.9	103.0	80.4	70.5	66.9	67.8
15°	332.2	315.4	278.8	212.0	147.3	96.3	66.9	59.7	57.8	57.8	56.9
17.5°	337.6	319.1	264.4	183.9	105.7	64.2	57.4	56.0	54.7	54.7	54.7
20°	345.3	320.9	254.4	152.7	74.6	56.5	53.8	52.9	52.4	52.4	52.0
22.5°	345.7	319.1	235.9	118.4	57.4	53.3	51.1	50.6	50.6	49.7	49.7
25°	348.4	320.9	216.0	89.0	53.3	50.2	48.4	47.9	48.4	47.9	47.5
27.5°	355.2	324.0	196.1	65.1	50.2	47.5	46.1	45.6	45.6	45.6	44.7
30°	363.8	324.0	174.0	53.8	47.5	44.7	43.4	42.9	42.5	42.5	42.5
32.5°	381.9	334.4	146.9	47.9	43.8	41.6	40.2	40.2	39.8	39.8	39.3
35°	404.5	341.7	119.3	44.3	40.7	38.4	37.1	37.1	36.6	36.6	36.2
37.5°	432.5	359.7	91.3	41.6	37.5	35.2	33.9	33.9	33.9	33.4	33.4
40°	472.3	378.3	67.8	38.0	34.3	32.1	31.2	30.7	30.3	30.3	29.4
42.5°	514.7	406.7	50.6	35.2	31.6	29.8	28.5	27.1	27.1	25.8	25.8
45°	560.8	431.6	41.1	32.1	28.9	26.7	25.3	24.4	23.0	22.1	22.1
47.5°	606.0	447.0	36.2	28.5	26.2	24.4	23.0	21.2	19.4	19.0	18.5
50°	642.6	451.5	32.1	25.8	24.0	22.1	20.3	18.1	16.3	15.4	14.9
52.5°	642.6	426.6	28.9	23.0	21.7	19.9	17.6	14.9	12.7	11.7	11.3
55°	642.6	387.3	25.8	21.2	19.4	18.1	14.9	12.2	9.9	8.6	8.1
57.5°	633.1	339.8	23.0	19.0	17.2	15.4	12.7	9.5	7.2	5.9	5.9
60°	606.9	290.1	19.9	16.7	14.9	12.7	9.9	6.8	4.5	3.2	3.2
62.5°	573.5	230.9	17.2	14.0	12.2	10.4	7.7	4.5	1.8	0.9	0.9
65°	515.2	170.4	14.9	11.7	9.5	7.7	5.0	1.8	0.0	0.0	0.0
67.5°	425.3	113.9	11.7	9.5	8.1	5.4	3.2	0.5	0.0	0.0	0.0
70°	299.2	64.6	9.0	6.8	5.9	3.6	0.9	0.0	0.0	0.0	0.0
72.5°	122.9	28.5	6.3	5.0	4.1	1.8	0.0	0.0	0.0	0.0	0.0
75°	33.4	12.7	4.1	2.7	2.3	0.5	0.0	0.0	0.0	0.0	0.0
77.5°	19.4	8.6	1.8	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
80°	15.4	4.1	0.9	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	15.4	2.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	13.1	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.8	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)