

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: P677182

Luminaire Tested: **CCW-SA-1A-830-U-SL4-HSS**

Issue Date: 04/25/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P677182  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 04/25/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCW-SA-1A-830-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) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

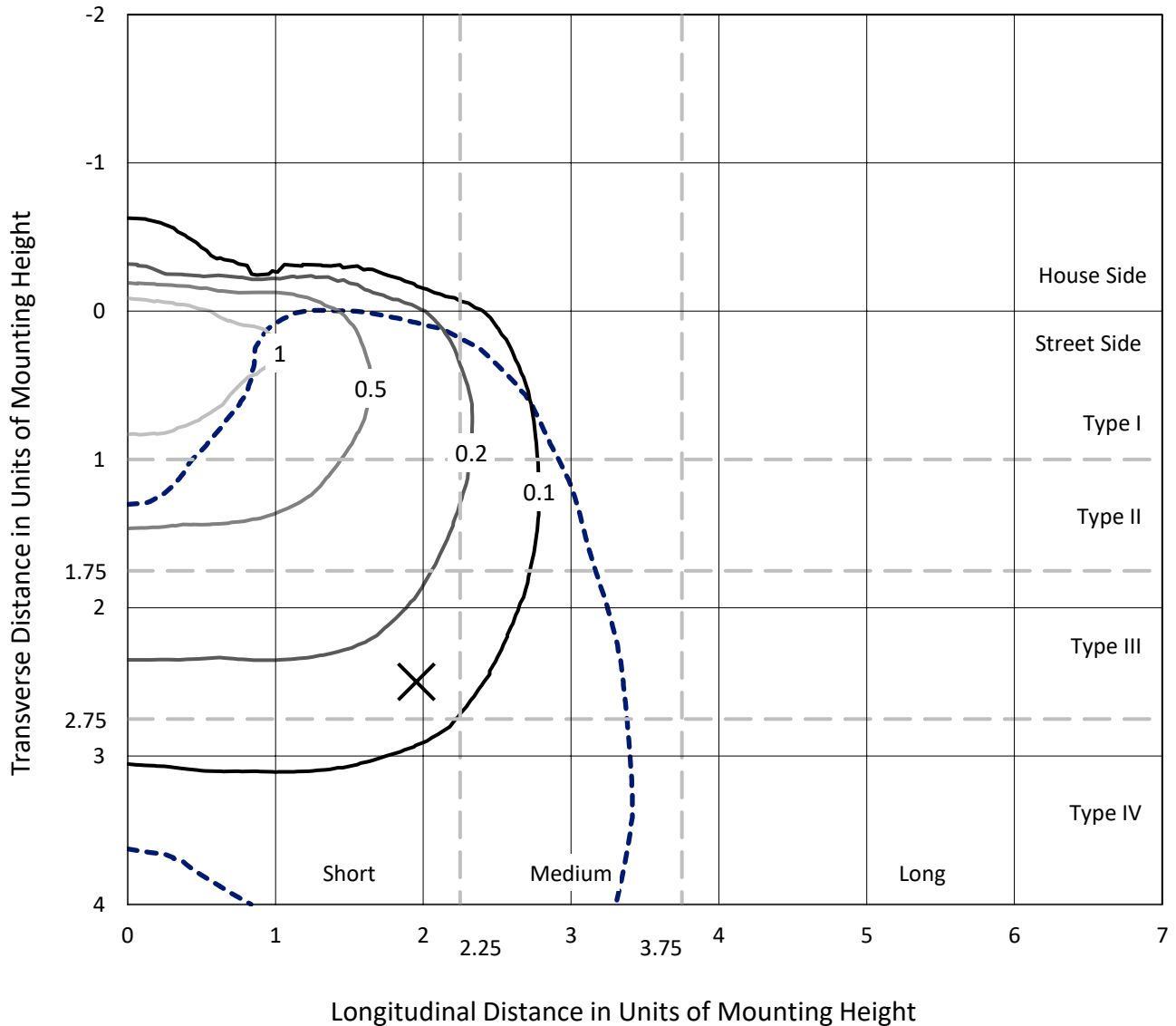
Lumens per Lamp: N/A  
Luminaire Lumens: 1795.7 lumens  
Efficiency: N/A  
Efficacy: 99.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B0 - U0 - G1

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

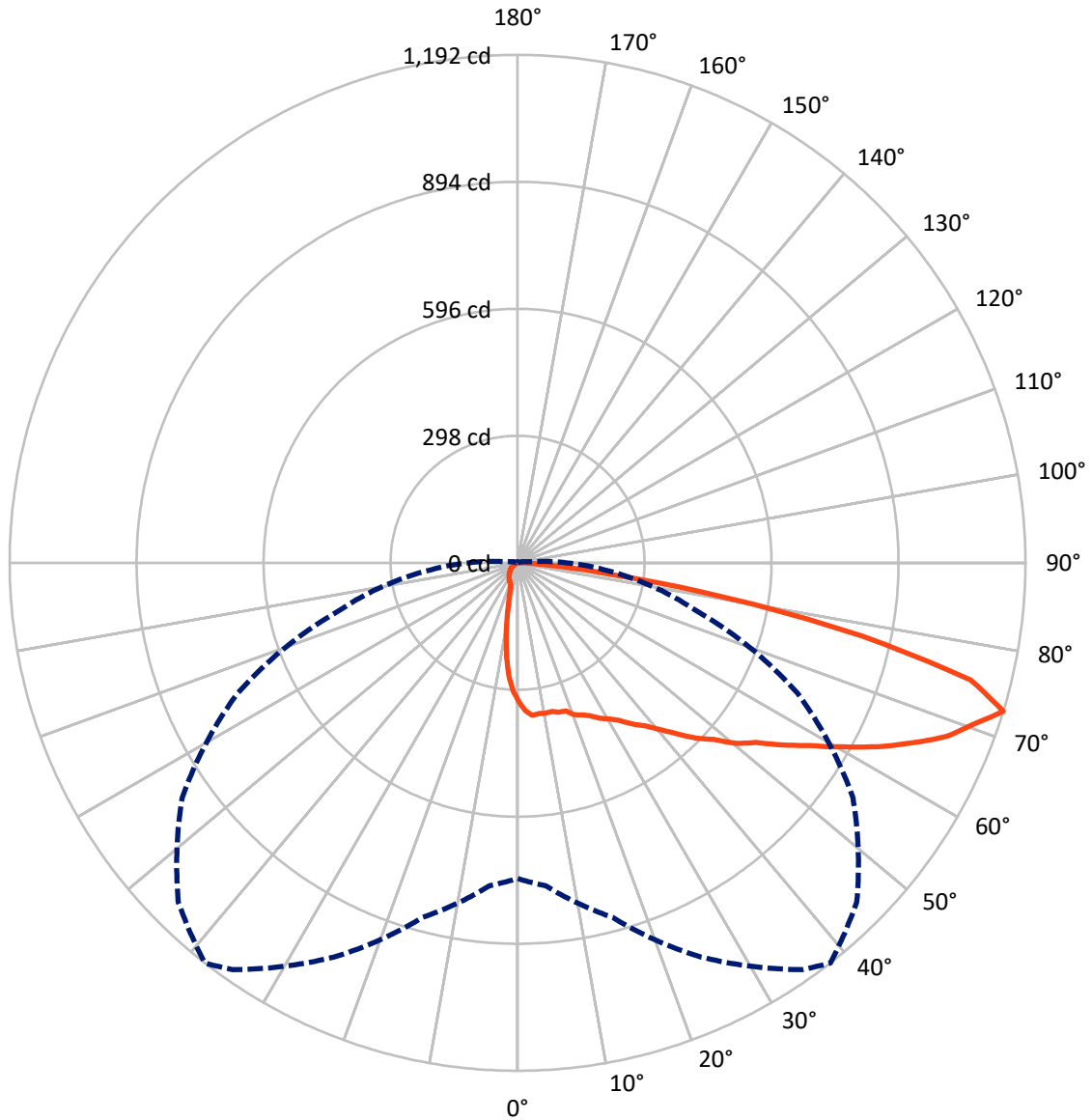
× Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 1.6 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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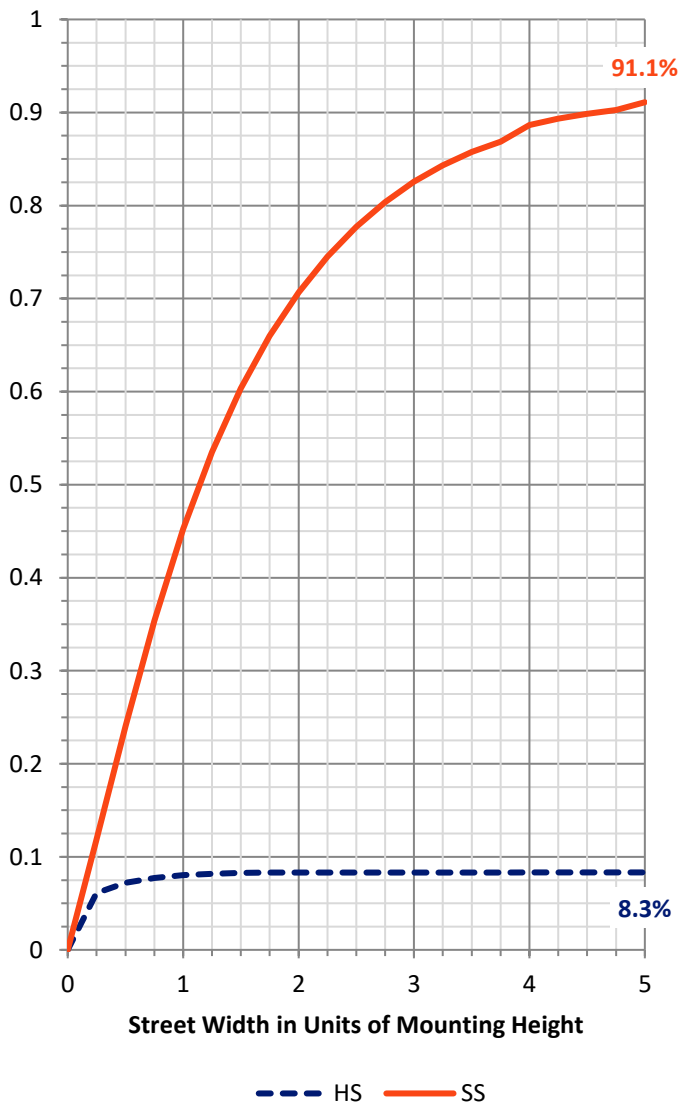
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	150.4	0.0	150.4
	% Fixture	8.4	0.0	8.4
<b>Street Side</b>	Lumens	1645.3	0.0	1645.3
	% Fixture	91.6	0.0	91.6
<b>Total</b>	Lumens	1795.7	0.0	1795.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	28.4	1.6
10°-20°	69.6	3.9
20°-30°	111.6	6.2
30°-40°	168.4	9.4
40°-50°	256.3	14.3
50°-60°	360.9	20.1
60°-70°	440.9	24.6
70°-80°	320.1	17.8
80°-90°	39.4	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°	1795.7	100.0
0°-180°	1795.7	100.0

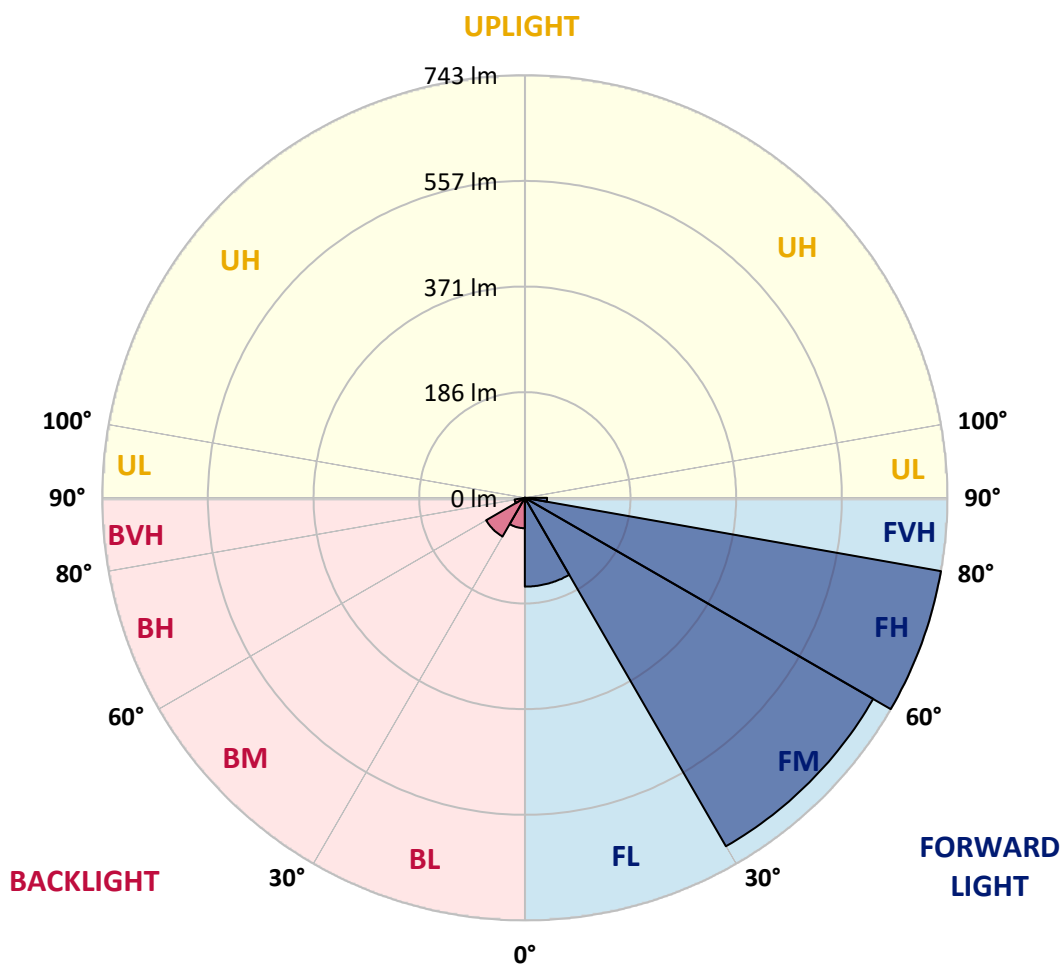


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	156.2	8.7			
FM (30°-60°)	707.1	39.4			
FH (60°-80°)	742.7	41.4			G1/1800
FVH (80°-90°)	39.2	2.2			G1/100
BL (0°-30°)	53.4	3.0	B0/110		
BM (30°-60°)	78.6	4.4	B0/220		
BH (60°-80°)	18.2	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°	324.7	324.7	324.7	324.7	324.7	324.7	324.7	324.7	324.7	324.7	324.7
2.5°	356.7	356.7	360.1	356.7	355.5	347.5	347.9	343.7	339.5	333.6	328.1
5°	361.0	363.9	366.0	363.1	358.4	359.3	362.2	354.2	342.8	335.7	323.5
7.5°	359.3	365.6	363.9	362.2	359.3	357.2	352.9	349.6	344.1	337.4	323.0
10°	358.0	360.1	360.5	359.3	352.9	358.8	354.2	348.7	342.0	334.0	316.3
12.5°	353.4	353.4	357.2	354.2	355.1	358.0	355.9	354.6	347.5	340.7	325.2
15°	348.3	350.0	355.9	360.5	364.7	363.5	362.2	358.4	352.1	344.5	328.1
17.5°	349.6	350.4	359.7	368.1	366.0	365.2	371.9	363.9	357.6	349.2	330.6
20°	354.2	356.7	367.3	378.2	380.3	380.3	377.8	373.2	364.3	352.9	335.3
22.5°	358.8	359.7	377.0	390.9	393.0	387.5	389.6	376.1	367.7	361.4	339.9
25°	376.5	374.8	393.4	404.3	403.1	397.6	395.5	383.7	380.3	369.0	350.0
27.5°	400.5	393.4	411.5	418.2	411.5	413.2	407.3	394.6	387.5	380.7	354.6
30°	415.3	419.5	429.2	435.9	424.5	425.0	422.0	408.1	397.2	398.9	370.2
32.5°	438.0	441.0	448.1	451.1	442.2	441.4	438.4	427.5	419.5	417.8	391.3
35°	462.5	467.9	468.4	469.2	461.2	464.6	460.3	444.8	449.0	451.9	416.5
37.5°	486.5	481.4	489.8	493.6	484.8	484.8	486.0	475.5	483.1	491.9	452.3
40°	495.7	497.8	512.6	509.6	520.2	513.8	518.5	515.9	522.3	542.5	502.9
42.5°	505.4	507.9	527.7	533.2	545.8	548.0	554.7	555.1	573.6	606.9	551.3
45°	523.9	519.7	546.7	560.2	580.8	586.7	594.7	601.4	630.5	669.7	606.5
47.5°	540.8	534.9	565.6	592.6	617.9	619.1	641.0	648.2	682.7	727.4	661.3
50°	564.4	566.5	579.5	625.9	651.6	666.3	681.5	705.1	743.4	791.0	700.8
52.5°	588.8	586.7	608.6	654.1	694.5	700.0	734.1	760.6	802.3	838.1	718.5
55°	618.7	621.2	629.7	689.5	740.9	753.9	792.2	820.0	865.5	858.4	724.4
57.5°	648.6	646.1	665.0	729.1	799.0	808.7	859.6	876.1	906.8	871.8	709.7
60°	678.1	682.7	690.7	773.7	862.6	876.9	917.3	925.8	932.5	878.2	698.3
62.5°	711.8	700.8	725.7	820.9	919.9	949.8	981.8	948.5	942.6	866.8	672.2
65°	728.6	732.0	764.4	874.8	996.1	1018.0	1022.2	979.2	948.9	841.5	647.8
67.5°	754.8	759.4	800.7	930.0	1074.4	1086.6	1071.5	1007.0	943.4	808.7	559.7
70°	758.1	769.5	849.1	987.7	1123.7	1134.2	1122.4	1025.6	899.2	679.4	414.4
72.5°	740.4	760.6	860.9	1020.5	1165.0	1191.5	1125.4	960.3	724.8	433.4	212.3
75°	559.3	576.2	788.0	971.7	1091.7	1098.0	988.1	732.9	412.8	147.8	54.3
77.5°	289.8	318.8	526.1	742.5	831.8	825.1	687.8	431.7	141.9	38.7	21.9
80°	166.4	173.5	230.0	417.0	523.1	497.4	380.3	186.2	62.3	19.4	14.3
82.5°	82.1	92.2	123.8	186.6	261.6	215.2	142.8	111.6	35.0	10.5	12.6
85°	17.7	18.5	63.2	89.3	106.1	69.9	48.9	93.9	12.6	6.3	12.2
87.5°	12.6	12.2	17.7	40.0	29.5	18.1	29.1	49.3	2.9	2.9	2.5
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°	324.7	324.7	324.7	324.7	324.7	324.7	324.7	324.7	324.7	324.7	324.7
2.5°	324.7	320.9	316.7	308.7	306.6	305.4	298.2	297.8	296.5	293.6	292.3
5°	315.9	309.6	301.6	293.1	286.4	274.2	259.4	251.9	242.6	243.0	240.1
7.5°	314.6	302.8	291.5	273.8	252.3	229.5	206.8	192.1	181.5	175.2	176.5
10°	308.7	299.9	281.3	248.5	214.0	179.4	150.4	128.5	115.8	106.1	109.1
12.5°	311.3	294.0	267.9	224.1	174.8	132.3	96.0	75.0	65.7	62.3	63.2
15°	309.6	294.0	259.9	197.5	137.3	89.7	62.3	55.6	53.9	53.9	53.1
17.5°	314.6	297.4	246.4	171.4	98.6	59.8	53.5	52.2	51.0	51.0	51.0
20°	321.8	299.0	237.1	142.4	69.5	52.6	50.1	49.3	48.9	48.9	48.4
22.5°	322.2	297.4	219.9	110.3	53.5	49.7	47.6	47.2	47.2	46.3	46.3
25°	324.7	299.0	201.3	83.0	49.7	46.8	45.1	44.6	45.1	44.6	44.2
27.5°	331.0	302.0	182.8	60.6	46.8	44.2	43.0	42.5	42.5	42.5	41.7
30°	339.0	302.0	162.2	50.1	44.2	41.7	40.4	40.0	39.6	39.6	39.6
32.5°	355.9	311.7	136.9	44.6	40.9	38.7	37.5	37.5	37.1	37.1	36.6
35°	377.0	318.4	111.2	41.3	37.9	35.8	34.5	34.5	34.1	34.1	33.7
37.5°	403.1	335.3	85.1	38.7	35.0	32.9	31.6	31.6	31.6	31.2	31.2
40°	440.1	352.5	63.2	35.4	32.0	29.9	29.1	28.6	28.2	28.2	27.4
42.5°	479.7	379.1	47.2	32.9	29.5	27.8	26.5	25.3	25.3	24.0	24.0
45°	522.7	402.2	38.3	29.9	27.0	24.8	23.6	22.7	21.5	20.6	20.6
47.5°	564.8	416.5	33.7	26.5	24.4	22.7	21.5	19.8	18.1	17.7	17.3
50°	598.9	420.8	29.9	24.0	22.3	20.6	19.0	16.8	15.2	14.3	13.9
52.5°	598.9	397.6	27.0	21.5	20.2	18.5	16.4	13.9	11.8	11.0	10.5
55°	598.9	361.0	24.0	19.8	18.1	16.8	13.9	11.4	9.3	8.0	7.6
57.5°	590.1	316.7	21.5	17.7	16.0	14.3	11.8	8.8	6.7	5.5	5.5
60°	565.6	270.4	18.5	15.6	13.9	11.8	9.3	6.3	4.2	2.9	2.9
62.5°	534.5	215.2	16.0	13.1	11.4	9.7	7.2	4.2	1.7	0.8	0.8
65°	480.1	158.8	13.9	11.0	8.8	7.2	4.6	1.7	0.0	0.0	0.0
67.5°	396.3	106.1	11.0	8.8	7.6	5.1	2.9	0.4	0.0	0.0	0.0
70°	278.8	60.2	8.4	6.3	5.5	3.4	0.8	0.0	0.0	0.0	0.0
72.5°	114.6	26.5	5.9	4.6	3.8	1.7	0.0	0.0	0.0	0.0	0.0
75°	31.2	11.8	3.8	2.5	2.1	0.4	0.0	0.0	0.0	0.0	0.0
77.5°	18.1	8.0	1.7	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
80°	14.3	3.8	0.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	14.3	2.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	12.2	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.7	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)