

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: P677205

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

Issue Date: 04/25/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P677205  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 04/25/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCW-SA-1B-840-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) 4000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

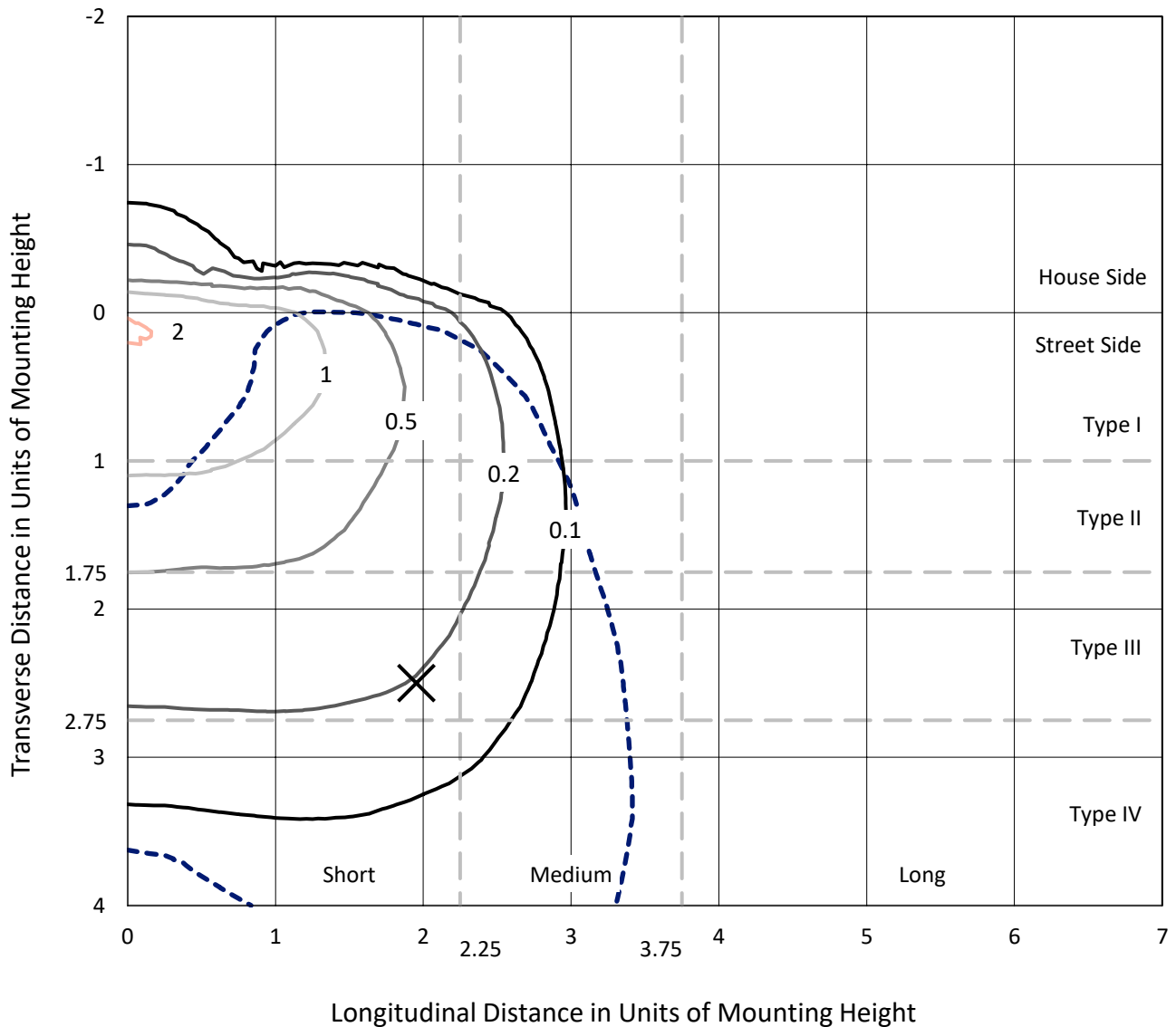
Lumens per Lamp: N/A  
Luminaire Lumens: 2432.3 lumens  
Efficiency: N/A  
Efficacy: 101.3 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B0 - U0 - G1

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

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### Iso-Footcandle Lines of Horizontal Illumination

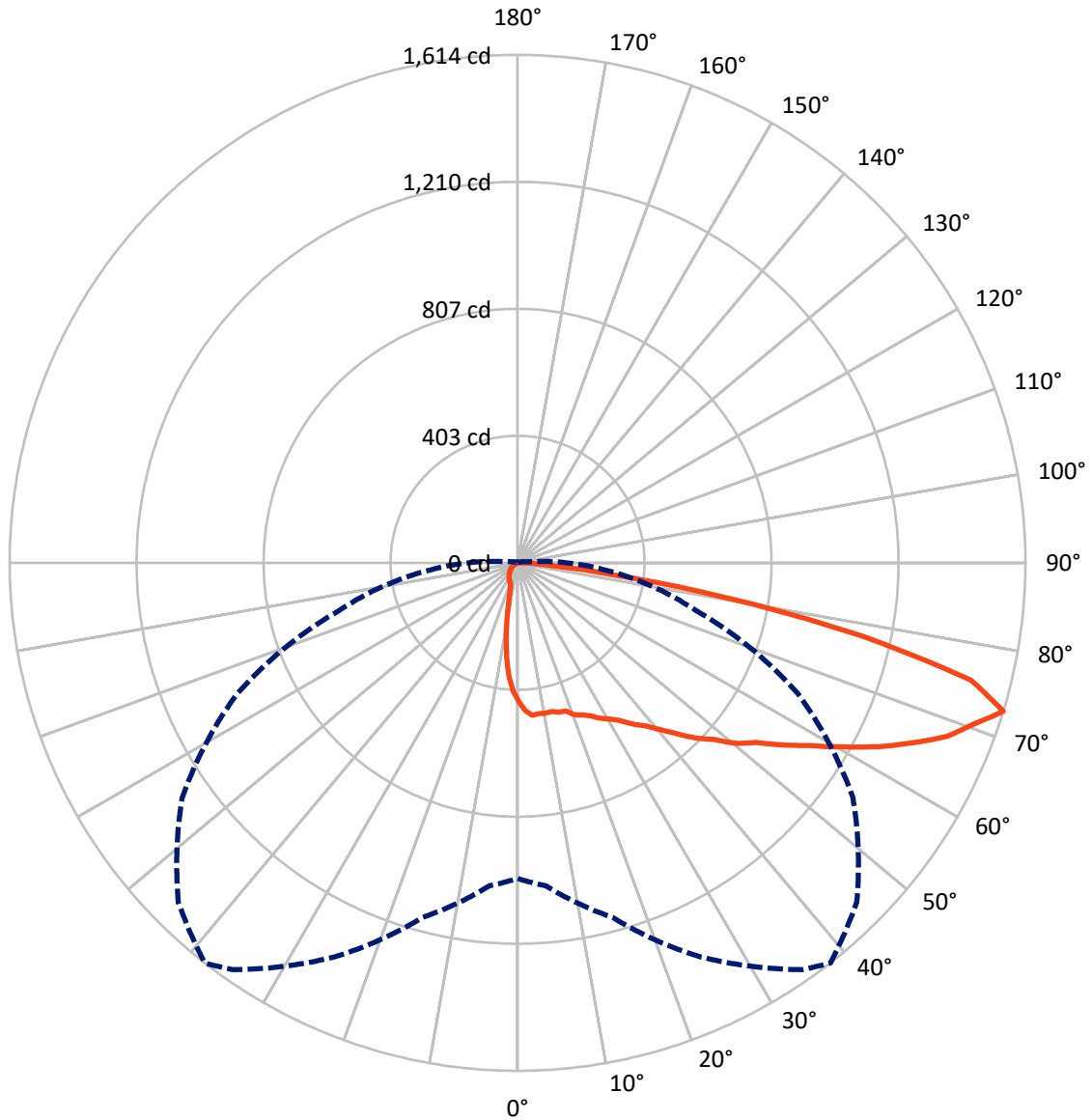
× Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 2.1 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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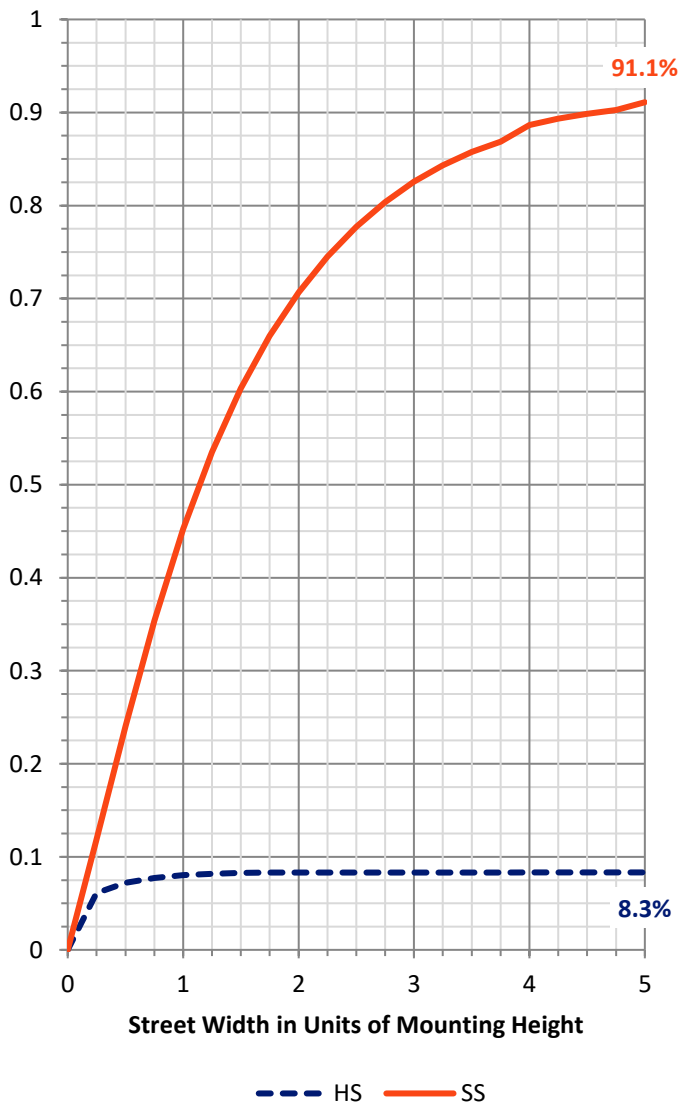
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	203.7	0.0	203.7
	% Fixture	8.4	0.0	8.4
<b>Street Side</b>	Lumens	2228.6	0.0	2228.6
	% Fixture	91.6	0.0	91.6
<b>Total</b>	Lumens	2432.3	0.0	2432.3
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.5	1.6
10°-20°	94.3	3.9
20°-30°	151.1	6.2
30°-40°	228.1	9.4
40°-50°	347.2	14.3
50°-60°	488.9	20.1
60°-70°	597.1	24.6
70°-80°	433.6	17.8
80°-90°	53.4	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°	2432.3	100.0
0°-180°	2432.3	100.0

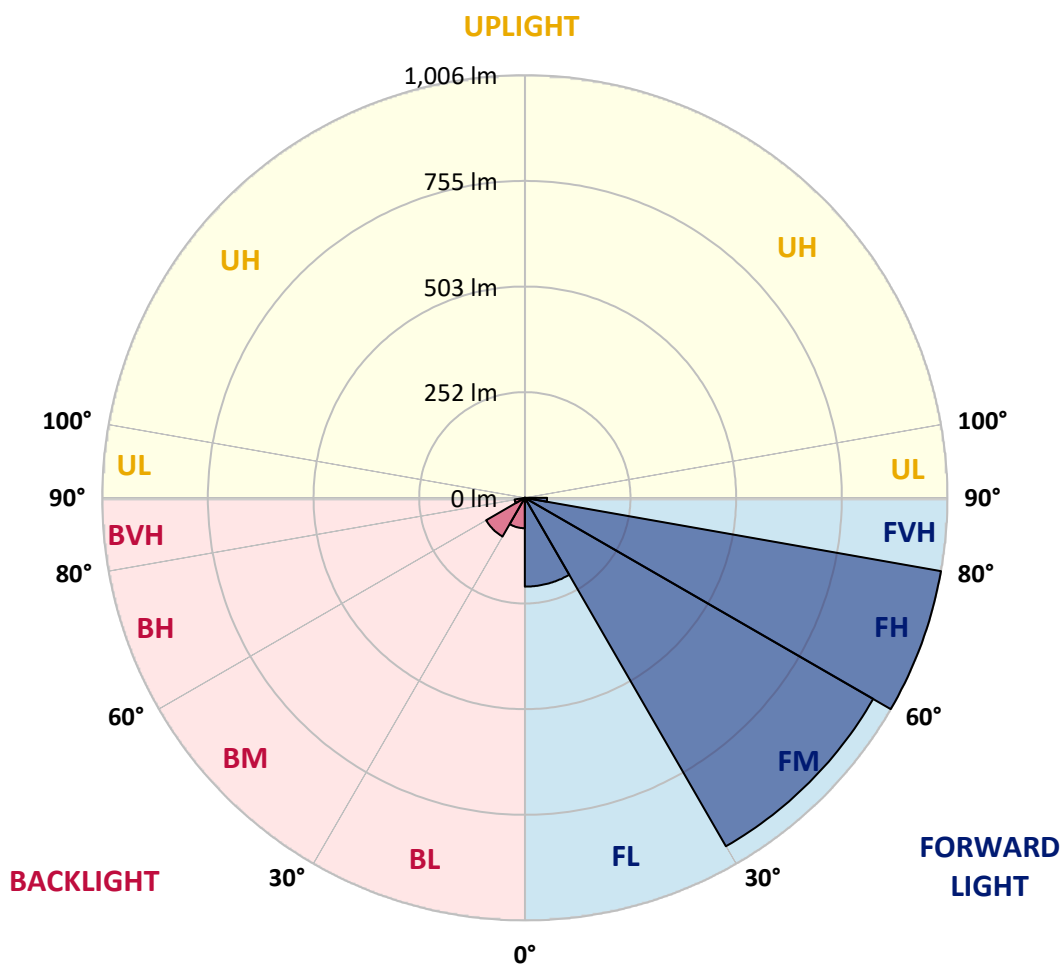


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	211.6	8.7			
FM (30°-60°)	957.8	39.4			
FH (60°-80°)	1006.1	41.4			G1/1800
FVH (80°-90°)	53.1	2.2			G1/100
BL (0°-30°)	72.3	3.0	B0/110		
BM (30°-60°)	106.4	4.4	B0/220		
BH (60°-80°)	24.7	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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	439.8	439.8	439.8	439.8	439.8	439.8	439.8	439.8	439.8	439.8	439.8
2.5°	483.2	483.2	487.8	483.2	481.5	470.7	471.2	465.5	459.8	451.8	444.4
5°	488.9	492.9	495.8	491.8	485.5	486.6	490.6	479.8	464.4	454.7	438.1
7.5°	486.6	495.2	492.9	490.6	486.6	483.8	478.1	473.5	466.1	457.0	437.6
10°	484.9	487.8	488.3	486.6	478.1	486.1	479.8	472.4	463.2	452.4	428.4
12.5°	478.6	478.6	483.8	479.8	480.9	484.9	482.1	480.4	470.7	461.5	440.4
15°	471.8	474.1	482.1	488.3	494.0	492.3	490.6	485.5	476.9	466.7	444.4
17.5°	473.5	474.6	487.2	498.6	495.8	494.6	503.7	492.9	484.3	472.9	447.8
20°	479.8	483.2	497.5	512.3	515.2	515.2	511.7	505.5	493.5	478.1	454.1
22.5°	486.1	487.2	510.6	529.4	532.3	524.9	527.7	509.4	498.0	489.5	460.4
25°	510.0	507.7	532.8	547.7	546.0	538.5	535.7	519.7	515.2	499.8	474.1
27.5°	542.5	532.8	557.4	566.5	557.4	559.7	551.7	534.6	524.9	515.7	480.4
30°	562.5	568.2	581.3	590.5	575.1	575.6	571.6	552.8	538.0	540.3	501.5
32.5°	593.3	597.3	607.0	611.0	599.0	597.9	593.9	579.0	568.2	565.9	530.0
35°	626.4	633.8	634.4	635.5	624.7	629.3	623.5	602.4	608.1	612.1	564.2
37.5°	658.9	652.1	663.5	668.6	656.6	656.6	658.3	644.1	654.4	666.3	612.7
40°	671.5	674.3	694.3	690.3	704.6	696.0	702.3	698.9	707.4	734.8	681.2
42.5°	684.6	688.0	714.8	722.2	739.4	742.2	751.3	751.9	777.0	822.1	746.8
45°	709.7	704.0	740.5	758.8	786.7	794.7	805.5	814.7	854.0	907.1	821.5
47.5°	732.5	724.5	766.2	802.7	836.9	838.6	868.3	878.0	924.8	985.2	895.7
50°	764.5	767.3	785.0	847.8	882.6	902.5	923.1	955.0	1006.9	1071.4	949.3
52.5°	797.5	794.7	824.4	886.0	940.7	948.2	994.4	1030.3	1086.8	1135.3	973.3
55°	838.1	841.5	852.9	933.9	1003.5	1021.2	1073.1	1110.7	1172.4	1162.7	981.2
57.5°	878.6	875.1	900.8	987.5	1082.2	1095.3	1164.4	1186.6	1228.3	1180.9	961.3
60°	918.5	924.8	935.6	1048.0	1168.4	1187.8	1242.5	1253.9	1263.1	1189.5	945.9
62.5°	964.1	949.3	983.0	1111.9	1246.0	1286.5	1329.8	1284.7	1276.8	1174.1	910.5
65°	987.0	991.5	1035.4	1184.9	1349.2	1378.9	1384.6	1326.4	1285.3	1139.8	877.4
67.5°	1022.3	1028.6	1084.5	1259.6	1455.3	1471.9	1451.3	1364.0	1277.9	1095.3	758.2
70°	1026.9	1042.3	1150.1	1337.8	1522.1	1536.3	1520.4	1389.1	1218.0	920.2	561.4
72.5°	1002.9	1030.3	1166.1	1382.3	1578.0	1613.9	1524.4	1300.7	981.8	587.0	287.5
75°	757.6	780.4	1067.4	1316.1	1478.7	1487.3	1338.4	992.7	559.1	200.2	73.6
77.5°	392.5	431.9	712.5	1005.8	1126.7	1117.6	931.6	584.8	192.3	52.5	29.7
80°	225.3	235.0	311.5	564.8	708.6	673.8	515.2	252.2	84.4	26.2	19.4
82.5°	111.2	124.9	167.7	252.7	354.3	291.5	193.4	151.2	47.4	14.3	17.1
85°	24.0	25.1	85.6	120.9	143.8	94.7	66.2	127.2	17.1	8.6	16.5
87.5°	17.1	16.5	24.0	54.2	39.9	24.5	39.4	66.7	4.0	4.0	3.4
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°	439.8	439.8	439.8	439.8	439.8	439.8	439.8	439.8	439.8	439.8	439.8
2.5°	439.8	434.7	429.0	418.2	415.3	413.6	403.9	403.3	401.6	397.6	395.9
5°	427.9	419.3	408.5	397.1	387.9	371.4	351.4	341.2	328.6	329.2	325.2
7.5°	426.2	410.2	394.8	370.8	341.7	310.9	280.1	260.1	245.9	237.3	239.0
10°	418.2	406.2	381.1	336.6	289.8	243.0	203.7	174.0	156.9	143.8	147.8
12.5°	421.6	398.2	362.8	303.5	236.8	179.1	130.1	101.5	89.0	84.4	85.6
15°	419.3	398.2	352.0	267.6	186.0	121.5	84.4	75.3	73.0	73.0	71.9
17.5°	426.2	402.8	333.7	232.2	133.5	81.0	72.5	70.7	69.0	69.0	69.0
20°	435.9	405.0	321.2	192.8	94.1	71.3	67.9	66.7	66.2	66.2	65.6
22.5°	436.4	402.8	297.8	149.5	72.5	67.3	64.5	63.9	63.9	62.8	62.8
25°	439.8	405.0	272.7	112.4	67.3	63.3	61.0	60.5	61.0	60.5	59.9
27.5°	448.4	409.0	247.6	82.2	63.3	59.9	58.2	57.6	57.6	57.6	56.5
30°	459.2	409.0	219.6	67.9	59.9	56.5	54.8	54.2	53.6	53.6	53.6
32.5°	482.1	422.2	185.4	60.5	55.3	52.5	50.8	50.8	50.2	50.2	49.6
35°	510.6	431.3	150.6	55.9	51.3	48.5	46.8	46.8	46.2	46.2	45.6
37.5°	546.0	454.1	115.2	52.5	47.4	44.5	42.8	42.8	42.8	42.2	42.2
40°	596.2	477.5	85.6	47.9	43.4	40.5	39.4	38.8	38.2	38.2	37.1
42.5°	649.8	513.4	63.9	44.5	39.9	37.7	35.9	34.2	34.2	32.5	32.5
45°	708.0	544.8	51.9	40.5	36.5	33.7	31.9	30.8	29.1	28.0	28.0
47.5°	765.0	564.2	45.6	35.9	33.1	30.8	29.1	26.8	24.5	24.0	23.4
50°	811.2	569.9	40.5	32.5	30.2	28.0	25.7	22.8	20.5	19.4	18.8
52.5°	811.2	538.5	36.5	29.1	27.4	25.1	22.2	18.8	16.0	14.8	14.3
55°	811.2	488.9	32.5	26.8	24.5	22.8	18.8	15.4	12.6	10.8	10.3
57.5°	799.3	429.0	29.1	24.0	21.7	19.4	16.0	12.0	9.1	7.4	7.4
60°	766.2	366.3	25.1	21.1	18.8	16.0	12.6	8.6	5.7	4.0	4.0
62.5°	724.0	291.5	21.7	17.7	15.4	13.1	9.7	5.7	2.3	1.1	1.1
65°	650.4	215.1	18.8	14.8	12.0	9.7	6.3	2.3	0.0	0.0	0.0
67.5°	536.8	143.8	14.8	12.0	10.3	6.8	4.0	0.6	0.0	0.0	0.0
70°	377.7	81.6	11.4	8.6	7.4	4.6	1.1	0.0	0.0	0.0	0.0
72.5°	155.2	35.9	8.0	6.3	5.1	2.3	0.0	0.0	0.0	0.0	0.0
75°	42.2	16.0	5.1	3.4	2.9	0.6	0.0	0.0	0.0	0.0	0.0
77.5°	24.5	10.8	2.3	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
80°	19.4	5.1	1.1	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	19.4	2.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	16.5	1.1	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)