

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: P677111

Luminaire Tested: **CCW-SA-2A-727-U-SL4-HSS**

Issue Date: 04/25/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P677111  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 04/25/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCW-SA-2A-727-U-SL4-HSS  
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @350mA w/  
SL4 distribution lens and House Side Shield  
Light Source: (32) 2700K CCT, 70 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

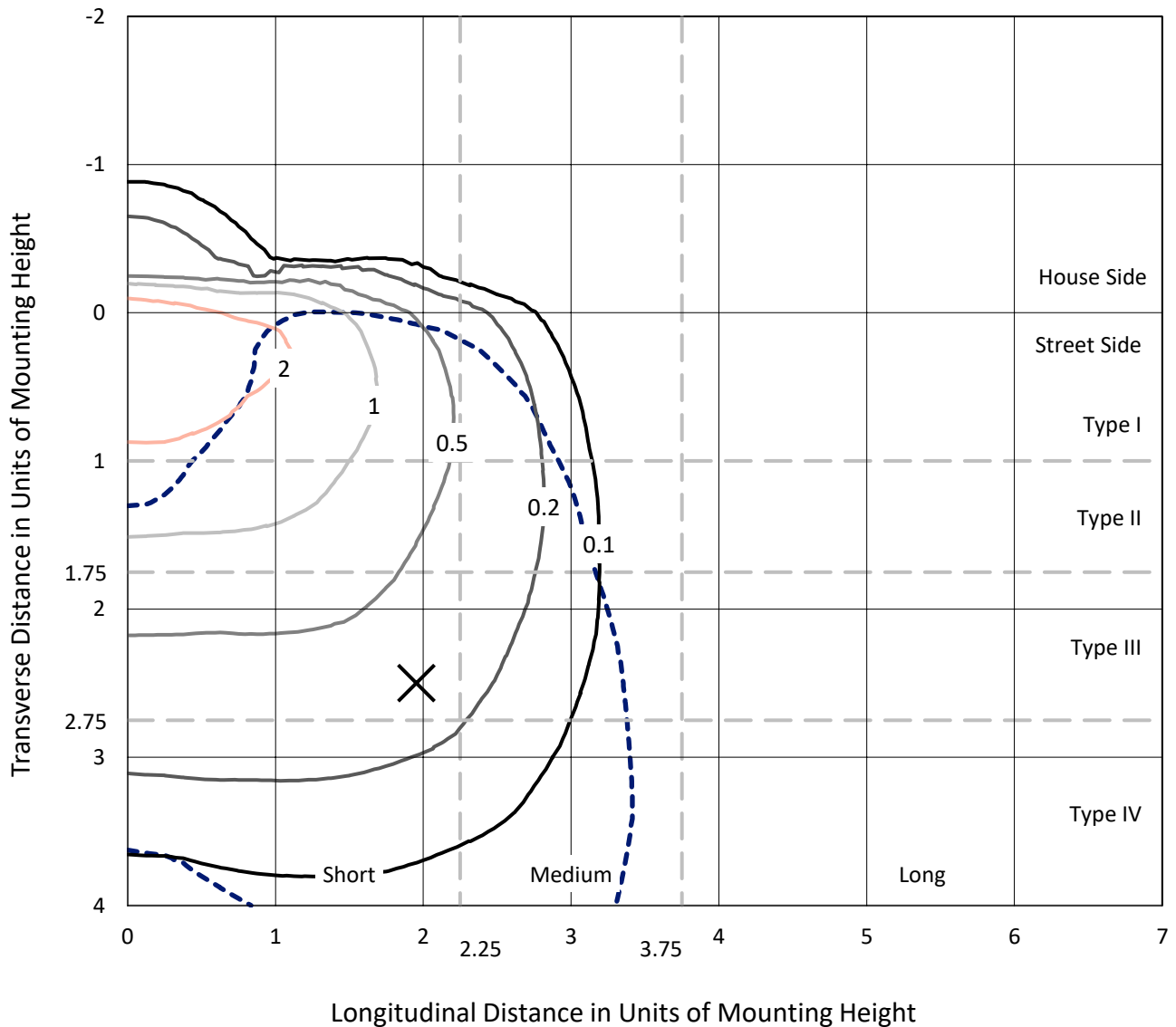
Lumens per Lamp: N/A  
Luminaire Lumens: 3779.8 lumens  
Efficiency: N/A  
Efficacy: 104.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G1

Input Watts (W): 36.2  
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

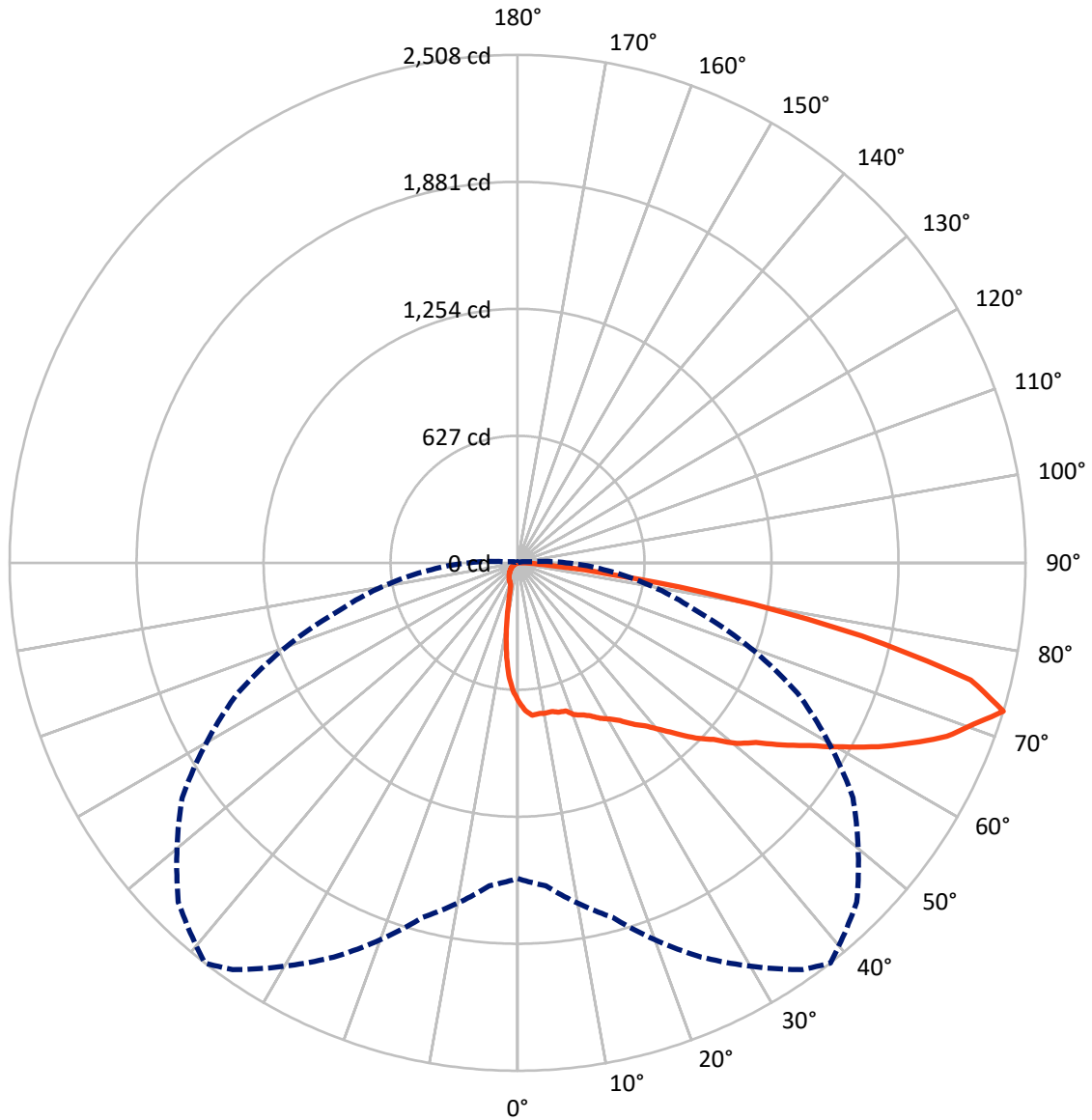
× Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 3.3 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	316.6	0.0	316.6
	% Fixture	8.4	0.0	8.4
<b>Street Side</b>	Lumens	3463.3	0.0	3463.3
	% Fixture	91.6	0.0	91.6
<b>Total</b>	Lumens	3779.8	0.0	3779.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.8	1.6
10°-20°	146.5	3.9
20°-30°	234.8	6.2
30°-40°	354.6	9.4
40°-50°	539.6	14.3
50°-60°	759.7	20.1
60°-70°	928.0	24.6
70°-80°	673.8	17.8
80°-90°	83.0	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°	3779.8	100.0
0°-180°	3779.8	100.0

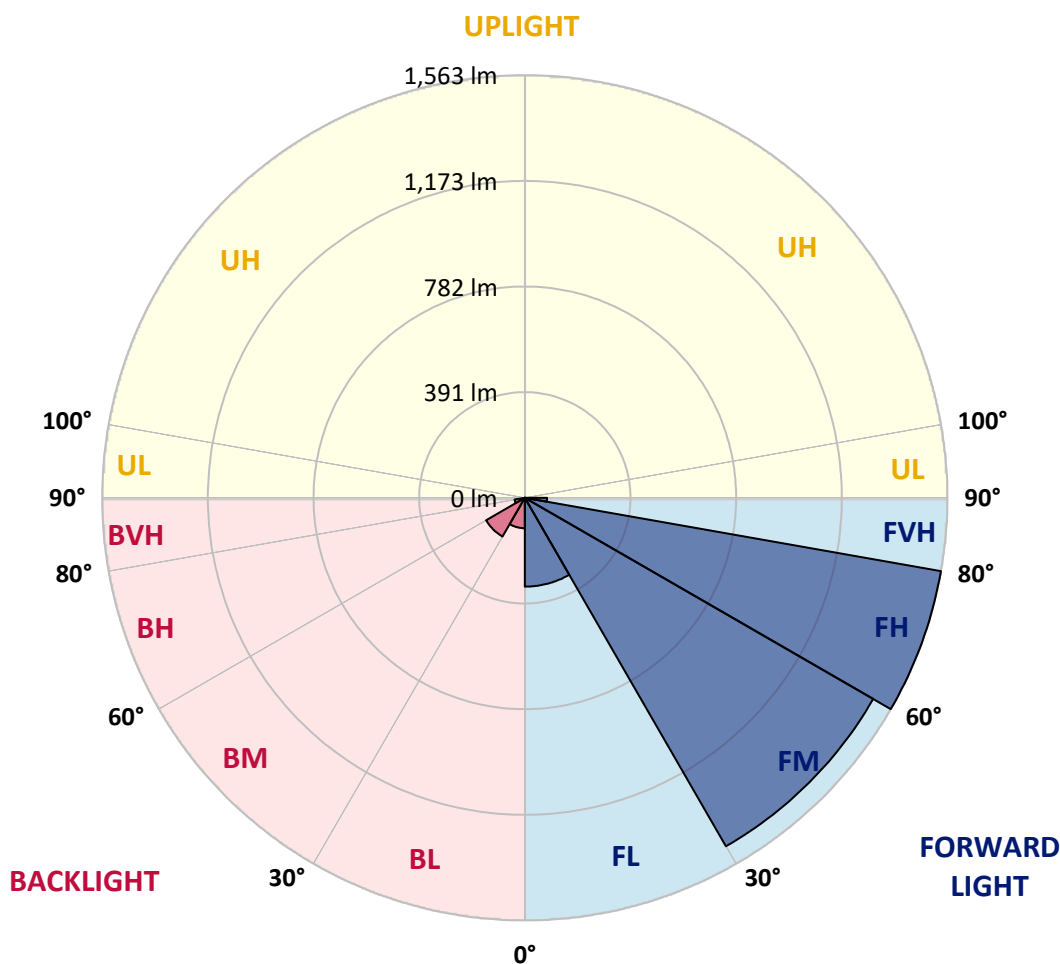


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	328.8	8.7			
FM (30°-60°)	1488.5	39.4			
FH (60°-80°)	1563.4	41.4			G1/1800
FVH (80°-90°)	82.6	2.2			G1/100
BL (0°-30°)	112.4	3.0	B1/500		
BM (30°-60°)	165.4	4.4	B0/220		
BH (60°-80°)	38.4	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: B1-U0-G1**  
 Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	683.5	683.5	683.5	683.5	683.5	683.5	683.5	683.5	683.5	683.5	683.5
2.5°	750.9	750.9	758.0	750.9	748.3	731.4	732.3	723.4	714.6	702.2	690.6
5°	759.8	766.0	770.4	764.2	754.5	756.2	762.4	745.6	721.7	706.6	680.9
7.5°	756.2	769.5	766.0	762.4	756.2	751.8	742.9	735.8	724.3	710.1	680.0
10°	753.6	758.0	758.9	756.2	742.9	755.4	745.6	734.1	719.9	703.0	665.8
12.5°	743.8	743.8	751.8	745.6	747.4	753.6	749.1	746.5	731.4	717.2	684.4
15°	733.2	736.7	749.1	758.9	767.8	765.1	762.4	754.5	741.2	725.2	690.6
17.5°	735.8	737.6	757.1	774.9	770.4	768.7	782.8	766.0	752.7	735.0	696.0
20°	745.6	750.9	773.1	796.1	800.6	800.6	795.2	785.5	766.9	742.9	705.7
22.5°	755.4	757.1	793.5	822.7	827.2	815.6	820.1	791.7	774.0	760.7	715.5
25°	792.6	789.0	828.1	851.1	848.4	836.9	832.5	807.7	800.6	776.6	736.7
27.5°	843.1	828.1	866.2	880.4	866.2	869.7	857.3	830.7	815.6	801.5	746.5
30°	874.2	883.0	903.4	917.6	893.7	894.5	888.3	859.1	836.0	839.6	779.3
32.5°	922.0	928.2	943.3	949.5	930.9	929.1	922.9	899.9	883.0	879.5	823.6
35°	973.4	985.0	985.9	987.6	970.8	977.9	969.0	936.2	945.1	951.3	876.8
37.5°	1024.0	1013.3	1031.1	1039.1	1020.4	1020.4	1023.1	1000.9	1016.9	1035.5	952.2
40°	1043.5	1047.9	1078.9	1072.7	1094.9	1081.6	1091.4	1086.0	1099.3	1141.9	1058.6
42.5°	1063.9	1069.2	1110.9	1122.4	1149.0	1153.4	1167.6	1168.5	1207.5	1277.5	1160.5
45°	1102.9	1094.0	1150.8	1179.1	1222.6	1235.0	1251.8	1266.0	1327.2	1409.6	1276.7
47.5°	1138.3	1125.9	1190.7	1247.4	1300.6	1303.3	1349.4	1364.4	1437.1	1531.1	1391.9
50°	1188.0	1192.4	1219.9	1317.4	1371.5	1402.5	1434.5	1484.1	1564.8	1665.0	1475.2
52.5°	1239.4	1235.0	1281.1	1376.8	1461.9	1473.5	1545.3	1601.1	1688.9	1764.3	1512.5
55°	1302.4	1307.7	1325.4	1451.3	1559.5	1587.0	1667.6	1726.1	1821.9	1806.8	1524.9
57.5°	1365.3	1360.0	1399.9	1534.6	1681.8	1702.2	1809.5	1844.1	1908.8	1835.2	1493.9
60°	1427.4	1437.1	1454.0	1628.6	1815.7	1845.8	1930.9	1948.7	1962.9	1848.5	1469.9
62.5°	1498.3	1475.2	1527.6	1727.9	1936.3	1999.2	2066.6	1996.5	1984.1	1824.6	1415.0
65°	1533.8	1540.9	1609.1	1841.4	2096.7	2142.8	2151.7	2061.3	1997.4	1771.4	1363.5
67.5°	1588.7	1598.5	1685.4	1957.5	2261.6	2287.3	2255.4	2119.8	1985.9	1702.2	1178.2
70°	1595.8	1619.8	1787.3	2079.0	2365.4	2387.5	2362.7	2158.8	1892.8	1430.0	872.4
72.5°	1558.6	1601.1	1812.1	2148.1	2452.2	2508.1	2368.9	2021.4	1525.8	912.3	446.8
75°	1177.4	1212.8	1658.8	2045.3	2298.0	2311.3	2079.9	1542.6	868.8	311.2	114.4
77.5°	610.0	671.1	1107.3	1563.0	1751.0	1736.8	1447.8	908.7	298.8	81.6	46.1
80°	350.2	365.3	484.1	877.7	1101.1	1047.0	800.6	391.9	131.2	40.8	30.1
82.5°	172.9	194.2	260.7	392.7	550.6	453.0	300.5	234.9	73.6	22.2	26.6
85°	37.2	39.0	133.0	188.0	223.4	147.2	102.8	197.7	26.6	13.3	25.7
87.5°	26.6	25.7	37.2	84.2	62.1	38.1	61.2	103.7	6.2	6.2	5.3
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°	683.5	683.5	683.5	683.5	683.5	683.5	683.5	683.5	683.5	683.5	683.5
2.5°	683.5	675.6	666.7	649.9	645.4	642.8	627.7	626.8	624.1	617.9	615.3
5°	664.9	651.6	634.8	617.0	602.9	577.2	546.1	530.2	510.7	511.5	505.3
7.5°	662.3	637.4	613.5	576.3	531.1	483.2	435.3	404.3	382.1	368.8	371.5
10°	649.9	631.2	592.2	523.1	450.4	377.7	316.5	270.4	243.8	223.4	229.6
12.5°	655.2	618.8	563.9	471.7	367.9	278.4	202.1	157.8	138.3	131.2	133.0
15°	651.6	618.8	547.0	415.8	289.0	188.8	131.2	117.0	113.5	113.5	111.7
17.5°	662.3	625.9	518.6	360.8	207.5	125.9	112.6	109.9	107.3	107.3	107.3
20°	677.3	629.5	499.1	299.7	146.3	110.8	105.5	103.7	102.8	102.8	102.0
22.5°	678.2	625.9	462.8	232.3	112.6	104.6	100.2	99.3	99.3	97.5	97.5
25°	683.5	629.5	423.8	174.7	104.6	98.4	94.9	94.0	94.9	94.0	93.1
27.5°	696.8	635.7	384.8	127.7	98.4	93.1	90.4	89.5	89.5	89.5	87.8
30°	713.7	635.7	341.3	105.5	93.1	87.8	85.1	84.2	83.3	83.3	83.3
32.5°	749.1	656.1	288.1	94.0	86.0	81.6	78.9	78.9	78.0	78.0	77.1
35°	793.5	670.2	234.1	86.9	79.8	75.4	72.7	72.7	71.8	71.8	70.9
37.5°	848.4	705.7	179.1	81.6	73.6	69.2	66.5	66.5	66.5	65.6	65.6
40°	926.5	742.1	133.0	74.5	67.4	62.9	61.2	60.3	59.4	59.4	57.6
42.5°	1009.8	797.9	99.3	69.2	62.1	58.5	55.9	53.2	53.2	50.5	50.5
45°	1100.2	846.7	80.7	62.9	56.7	52.3	49.6	47.9	45.2	43.4	43.4
47.5°	1188.9	876.8	70.9	55.9	51.4	47.9	45.2	41.7	38.1	37.2	36.3
50°	1260.7	885.7	62.9	50.5	47.0	43.4	39.9	35.5	31.9	30.1	29.3
52.5°	1260.7	836.9	56.7	45.2	42.6	39.0	34.6	29.3	24.8	23.1	22.2
55°	1260.7	759.8	50.5	41.7	38.1	35.5	29.3	23.9	19.5	16.8	16.0
57.5°	1242.1	666.7	45.2	37.2	33.7	30.1	24.8	18.6	14.2	11.5	11.5
60°	1190.7	569.2	39.0	32.8	29.3	24.8	19.5	13.3	8.9	6.2	6.2
62.5°	1125.1	453.0	33.7	27.5	23.9	20.4	15.1	8.9	3.5	1.8	1.8
65°	1010.7	334.2	29.3	23.1	18.6	15.1	9.8	3.5	0.0	0.0	0.0
67.5°	834.3	223.4	23.1	18.6	16.0	10.6	6.2	0.9	0.0	0.0	0.0
70°	586.9	126.8	17.7	13.3	11.5	7.1	1.8	0.0	0.0	0.0	0.0
72.5°	241.1	55.9	12.4	9.8	8.0	3.5	0.0	0.0	0.0	0.0	0.0
75°	65.6	24.8	8.0	5.3	4.4	0.9	0.0	0.0	0.0	0.0	0.0
77.5°	38.1	16.8	3.5	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0
80°	30.1	8.0	1.8	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	30.1	4.4	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	25.7	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.5	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)