

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: P677191

Luminaire Tested: **CCW-SA-2D-830-U-SL4-HSS**

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P677191
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-SA-2D-830-U-SL4-HSS
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @800mA w/
SL4 distribution lens and House Side Shield
Light Source: (32) 3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

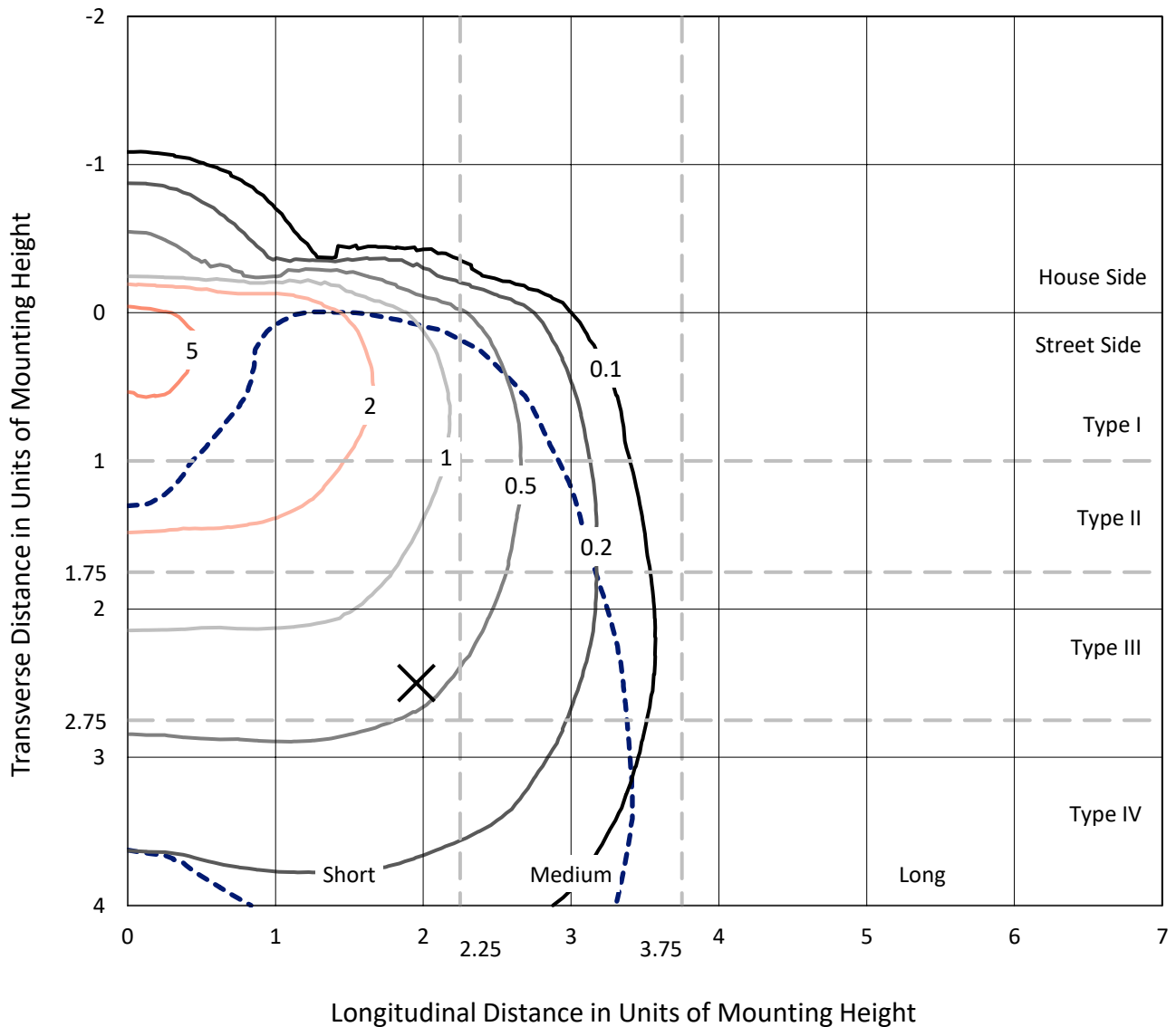
Lumens per Lamp: N/A
Luminaire Lumens: 7320.2 lumens
Efficiency: N/A
Efficacy: 90.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

Input Watts (W): 80.8
Input Voltage (V): 120
Input Current (A_{in}): 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: P677191
 CATALOG NUMBER: CCW-SA-2D-830-U-SL4-HSS

Iso-Footcandle Lines of Horizontal Illumination

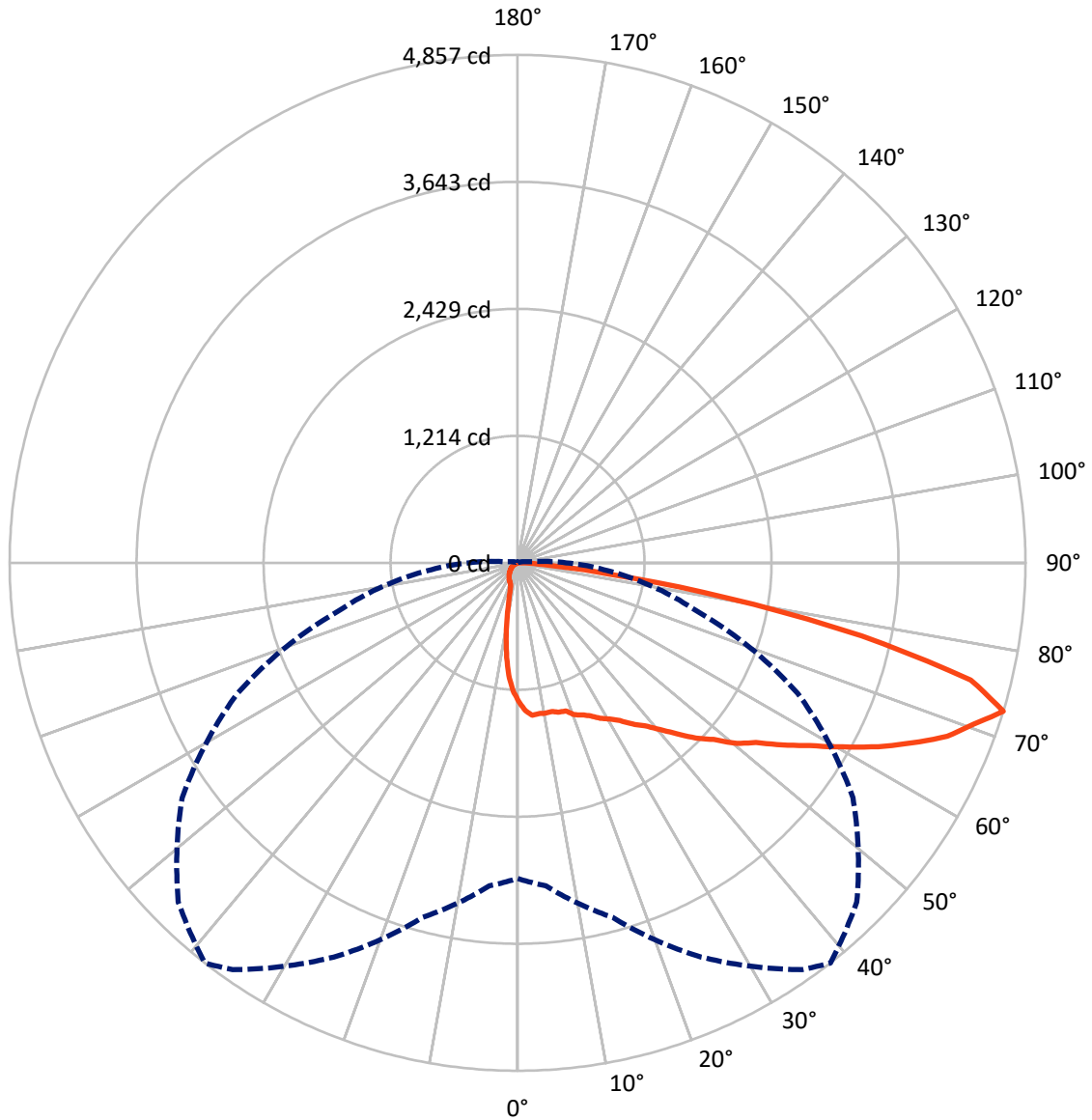
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 6.4 fc
 Type IV - Short - N/A

REPORT NUMBER: P677191
CATALOG NUMBER: CCW-SA-2D-830-U-SL4-HSS

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
House Side	Lumens	613.1	0.0	613.1
	% Fixture	8.4	0.0	8.4
Street Side	Lumens	6707.2	0.0	6707.2
	% Fixture	91.6	0.0	91.6
Total	Lumens	7320.2	0.0	7320.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.9	1.6
10°-20°	283.7	3.9
20°-30°	454.8	6.2
30°-40°	686.6	9.4
40°-50°	1045.0	14.3
50°-60°	1471.3	20.1
60°-70°	1797.2	24.6
70°-80°	1305.0	17.8
80°-90°	160.7	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°	7320.2	100.0
0°-180°	7320.2	100.0

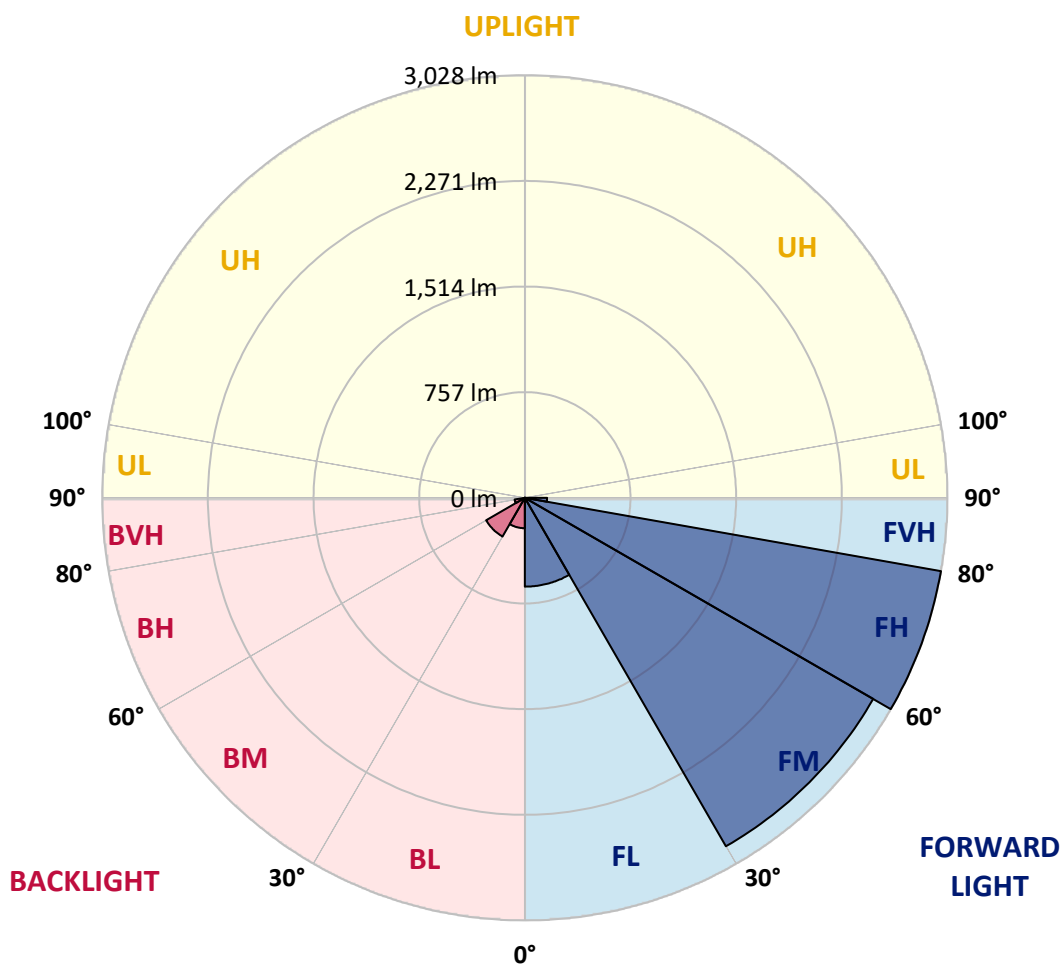


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	636.7	8.7			
FM (30°-60°)	2882.7	39.4			
FH (60°-80°)	3027.9	41.4			G2/5000
FVH (80°-90°)	159.9	2.2			G2/225
BL (0°-30°)	217.7	3.0	B1/500		
BM (30°-60°)	320.3	4.4	B1/1000		
BH (60°-80°)	74.3	1.0	B0/110		G0/110
BVH (80°-90°)	0.8	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-G2
 Type IV Short





REPORT NUMBER: P677191

CATALOG NUMBER: CCW-SA-2D-830-U-SL4-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8
2.5°	1454.3	1454.3	1468.0	1454.3	1449.1	1416.5	1418.2	1401.1	1383.9	1359.8	1337.5
5°	1471.4	1483.5	1492.0	1480.0	1461.1	1464.6	1476.6	1444.0	1397.6	1368.4	1318.6
7.5°	1464.6	1490.3	1483.5	1476.6	1464.6	1456.0	1438.8	1425.1	1402.8	1375.3	1316.9
10°	1459.4	1468.0	1469.7	1464.6	1438.8	1462.9	1444.0	1421.7	1394.2	1361.6	1289.4
12.5°	1440.5	1440.5	1456.0	1444.0	1447.4	1459.4	1450.8	1445.7	1416.5	1389.0	1325.5
15°	1419.9	1426.8	1450.8	1469.7	1486.9	1481.7	1476.6	1461.1	1435.4	1404.5	1337.5
17.5°	1425.1	1428.5	1466.3	1500.6	1492.0	1488.6	1516.1	1483.5	1457.7	1423.4	1347.8
20°	1444.0	1454.3	1497.2	1541.8	1550.4	1550.4	1540.1	1521.2	1485.2	1438.8	1366.7
22.5°	1462.9	1466.3	1536.7	1593.4	1601.9	1579.6	1588.2	1533.3	1498.9	1473.2	1385.6
25°	1535.0	1528.1	1603.7	1648.3	1643.1	1620.8	1612.2	1564.2	1550.4	1504.1	1426.8
27.5°	1632.8	1603.7	1677.5	1705.0	1677.5	1684.4	1660.3	1608.8	1579.6	1552.1	1445.7
30°	1692.9	1710.1	1749.6	1777.1	1730.7	1732.4	1720.4	1663.7	1619.1	1626.0	1509.2
32.5°	1785.7	1797.7	1826.9	1838.9	1802.8	1799.4	1787.4	1742.7	1710.1	1703.2	1595.1
35°	1885.2	1907.6	1909.3	1912.7	1880.1	1893.8	1876.7	1813.1	1830.3	1842.3	1698.1
37.5°	1983.1	1962.5	1996.8	2012.3	1976.2	1976.2	1981.4	1938.5	1969.4	2005.4	1844.0
40°	2020.9	2029.5	2089.6	2077.5	2120.5	2094.7	2113.6	2103.3	2129.0	2211.5	2050.1
42.5°	2060.4	2070.7	2151.4	2173.7	2225.2	2233.8	2261.3	2263.0	2338.5	2474.2	2247.5
45°	2135.9	2118.7	2228.6	2283.6	2367.7	2391.7	2424.4	2451.8	2570.3	2730.0	2472.4
47.5°	2204.6	2180.6	2305.9	2415.8	2518.8	2524.0	2613.2	2642.4	2783.2	2965.2	2695.6
50°	2300.7	2309.3	2362.6	2551.4	2656.2	2716.3	2778.1	2874.2	3030.5	3224.5	2857.0
52.5°	2400.3	2391.7	2481.0	2666.5	2831.3	2853.6	2992.7	3100.9	3270.8	3416.8	2929.2
55°	2522.2	2532.5	2566.9	2810.7	3020.2	3073.4	3229.6	3342.9	3528.4	3499.2	2953.2
57.5°	2644.1	2633.8	2711.1	2972.1	3257.1	3296.6	3504.3	3571.3	3696.6	3554.1	2893.1
60°	2764.3	2783.2	2815.8	3154.1	3516.4	3574.7	3739.6	3773.9	3801.4	3579.9	2846.7
62.5°	2901.7	2857.0	2958.3	3346.4	3749.9	3871.8	4002.3	3866.6	3842.6	3533.5	2740.3
65°	2970.4	2984.1	3116.3	3566.2	4060.6	4149.9	4167.1	3992.0	3868.3	3430.5	2640.7
67.5°	3076.8	3095.7	3264.0	3791.1	4380.0	4429.8	4368.0	4105.3	3846.0	3296.6	2281.9
70°	3090.6	3136.9	3461.4	4026.3	4580.9	4623.8	4575.7	4180.8	3665.7	2769.5	1689.5
72.5°	3018.4	3100.9	3509.5	4160.2	4749.1	4857.3	4587.8	3914.7	2954.9	1766.8	865.4
75°	2280.1	2348.8	3212.5	3961.1	4450.4	4476.1	4028.0	2987.5	1682.6	602.7	221.5
77.5°	1181.3	1299.7	2144.5	3027.0	3391.0	3363.6	2803.8	1759.9	578.6	158.0	89.3
80°	678.2	707.4	937.5	1699.8	2132.5	2027.7	1550.4	758.9	254.1	79.0	58.4
82.5°	334.8	376.0	504.8	760.6	1066.2	877.4	582.1	455.0	142.5	42.9	51.5
85°	72.1	75.5	257.5	364.0	432.7	285.0	199.2	382.9	51.5	25.8	49.8
87.5°	51.5	49.8	72.1	163.1	120.2	73.8	118.5	200.9	12.0	12.0	10.3
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: P677191

CATALOG NUMBER: CCW-SA-2D-830-U-SL4-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8	1323.8
2.5°	1323.8	1308.3	1291.2	1258.5	1250.0	1244.8	1215.6	1213.9	1208.7	1196.7	1191.6
5°	1287.7	1262.0	1229.4	1195.0	1167.5	1117.7	1057.7	1026.8	989.0	990.7	978.7
7.5°	1282.6	1234.5	1188.1	1116.0	1028.5	935.8	843.0	782.9	740.0	714.3	719.4
10°	1258.5	1222.5	1146.9	1013.0	872.2	731.4	613.0	523.7	472.2	432.7	444.7
12.5°	1268.8	1198.4	1092.0	913.4	712.5	539.1	391.5	305.6	267.8	254.1	257.5
15°	1262.0	1198.4	1059.4	805.3	559.7	365.7	254.1	226.6	219.8	219.8	216.3
17.5°	1282.6	1212.2	1004.4	698.8	401.8	243.8	218.1	212.9	207.8	207.8	207.8
20°	1311.8	1219.1	966.7	580.3	283.3	214.6	204.3	200.9	199.2	199.2	197.5
22.5°	1313.5	1212.2	896.3	449.8	218.1	202.6	194.0	192.3	192.3	188.9	188.9
25°	1323.8	1219.1	820.7	338.2	202.6	190.6	183.7	182.0	183.7	182.0	180.3
27.5°	1349.5	1231.1	745.2	247.2	190.6	180.3	175.1	173.4	173.4	173.4	170.0
30°	1382.2	1231.1	661.0	204.3	180.3	170.0	164.8	163.1	161.4	161.4	161.4
32.5°	1450.8	1270.6	558.0	182.0	166.5	158.0	152.8	152.8	151.1	151.1	149.4
35°	1536.7	1298.0	453.3	168.3	154.5	145.9	140.8	140.8	139.1	139.1	137.4
37.5°	1643.1	1366.7	346.8	158.0	142.5	133.9	128.8	128.8	128.8	127.1	127.1
40°	1794.2	1437.1	257.5	144.2	130.5	121.9	118.5	116.8	115.0	115.0	111.6
42.5°	1955.6	1545.3	192.3	133.9	120.2	113.3	108.2	103.0	103.0	97.9	97.9
45°	2130.8	1639.7	156.2	121.9	109.9	101.3	96.2	92.7	87.6	84.1	84.1
47.5°	2302.5	1698.1	137.4	108.2	99.6	92.7	87.6	80.7	73.8	72.1	70.4
50°	2441.5	1715.3	121.9	97.9	91.0	84.1	77.3	68.7	61.8	58.4	56.7
52.5°	2441.5	1620.8	109.9	87.6	82.4	75.5	67.0	56.7	48.1	44.6	42.9
55°	2441.5	1471.4	97.9	80.7	73.8	68.7	56.7	46.4	37.8	32.6	30.9
57.5°	2405.5	1291.2	87.6	72.1	65.2	58.4	48.1	36.1	27.5	22.3	22.3
60°	2305.9	1102.3	75.5	63.5	56.7	48.1	37.8	25.8	17.2	12.0	12.0
62.5°	2178.8	877.4	65.2	53.2	46.4	39.5	29.2	17.2	6.9	3.4	3.4
65°	1957.3	647.3	56.7	44.6	36.1	29.2	18.9	6.9	0.0	0.0	0.0
67.5°	1615.7	432.7	44.6	36.1	30.9	20.6	12.0	1.7	0.0	0.0	0.0
70°	1136.6	245.5	34.3	25.8	22.3	13.7	3.4	0.0	0.0	0.0	0.0
72.5°	467.0	108.2	24.0	18.9	15.5	6.9	0.0	0.0	0.0	0.0	0.0
75°	127.1	48.1	15.5	10.3	8.6	1.7	0.0	0.0	0.0	0.0	0.0
77.5°	73.8	32.6	6.9	3.4	3.4	0.0	0.0	0.0	0.0	0.0	0.0
80°	58.4	15.5	3.4	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	58.4	8.6	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	49.8	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	6.9	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)