

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: P677213

Luminaire Tested: **CCW-SA-2D-840-U-SL4-HSS**

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P677213
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-SA-2D-840-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) 4000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

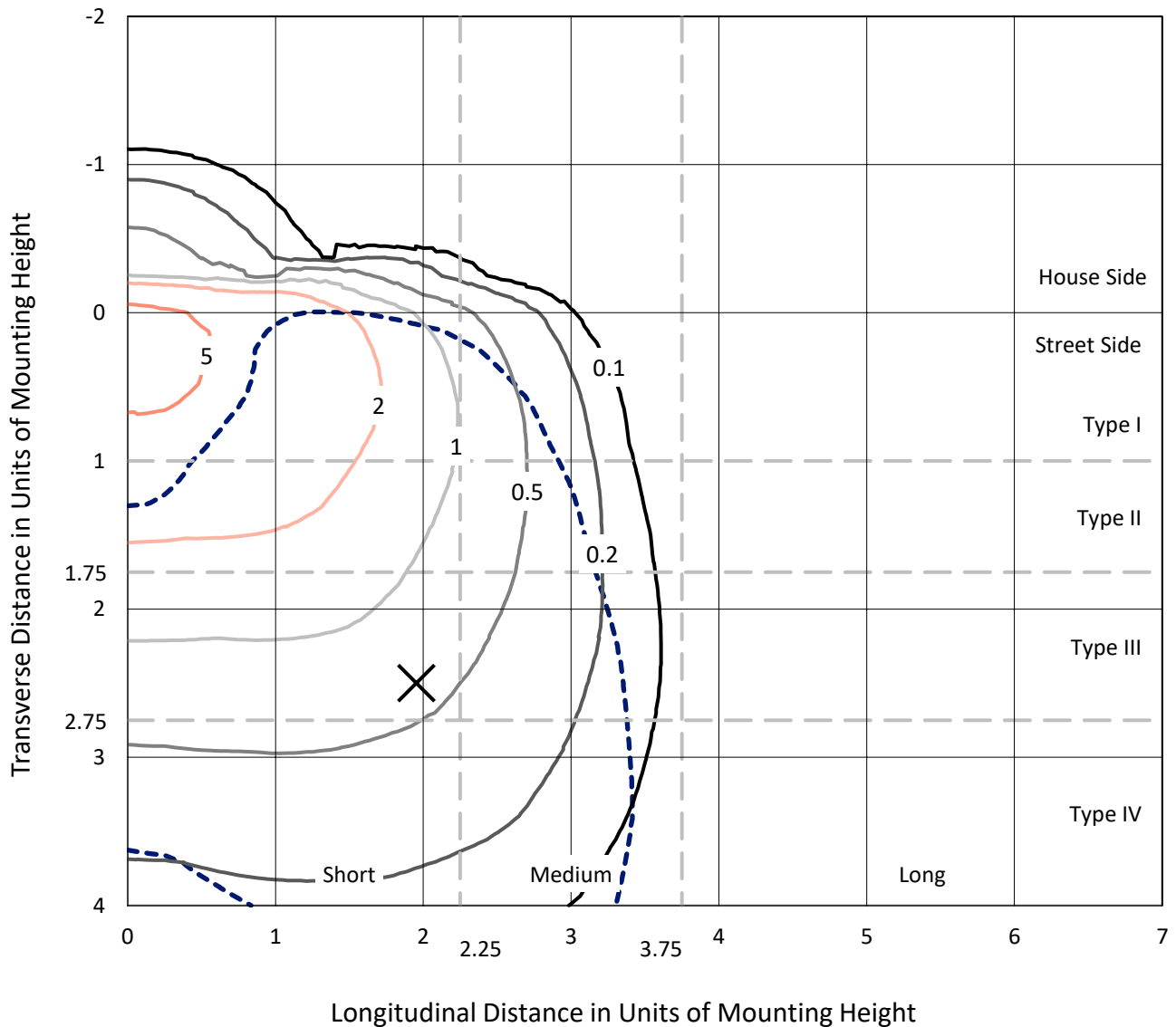
Lumens per Lamp: N/A
Luminaire Lumens: 7854.6 lumens
Efficiency: N/A
Efficacy: 97.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

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

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Iso-Footcandle Lines of Horizontal Illumination

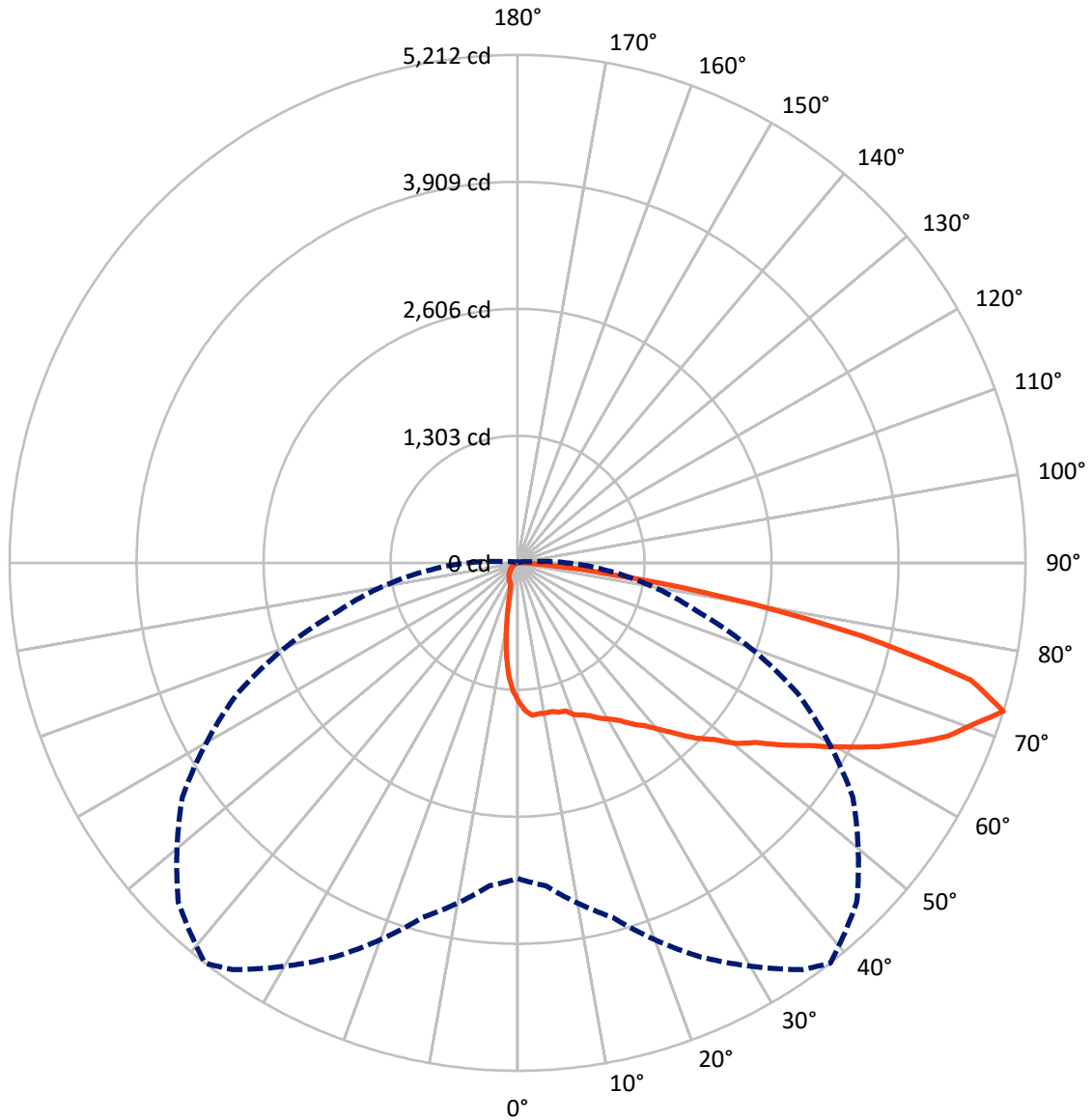
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 6.8 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
House Side	Lumens	657.8	0.0	657.8
	% Fixture	8.4	0.0	8.4
Street Side	Lumens	7196.7	0.0	7196.7
	% Fixture	91.6	0.0	91.6
Total	Lumens	7854.6	0.0	7854.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.3	1.6
10°-20°	304.4	3.9
20°-30°	488.0	6.2
30°-40°	736.8	9.4
40°-50°	1121.3	14.3
50°-60°	1578.7	20.1
60°-70°	1928.4	24.6
70°-80°	1400.3	17.8
80°-90°	172.4	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°	7854.6	100.0
0°-180°	7854.6	100.0

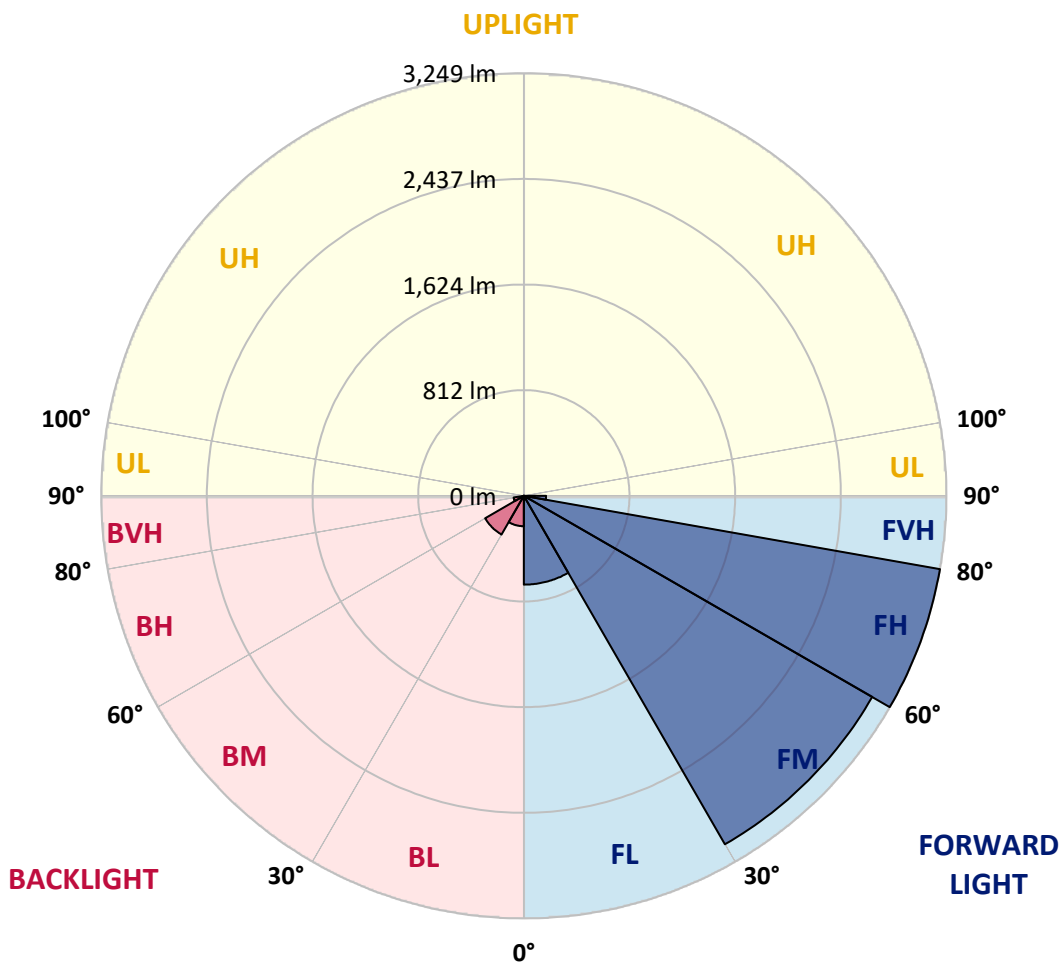


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	683.2	8.7			
FM (30°-60°)	3093.1	39.4			
FH (60°-80°)	3248.9	41.4			G2/5000
FVH (80°-90°)	171.6	2.2			G2/225
BL (0°-30°)	233.5	3.0	B1/500		
BM (30°-60°)	343.6	4.4	B1/1000		
BH (60°-80°)	79.8	1.0	B0/110		G0/110
BVH (80°-90°)	0.9	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	1420.4	1420.4	1420.4	1420.4	1420.4	1420.4	1420.4	1420.4	1420.4	1420.4	1420.4
2.5°	1560.4	1560.4	1575.2	1560.4	1554.9	1519.9	1521.7	1503.3	1484.9	1459.1	1435.2
5°	1578.9	1591.7	1601.0	1588.1	1567.8	1571.5	1584.4	1549.4	1499.6	1468.3	1414.9
7.5°	1571.5	1599.1	1591.7	1584.4	1571.5	1562.3	1543.8	1529.1	1505.2	1475.7	1413.0
10°	1566.0	1575.2	1577.0	1571.5	1543.8	1569.6	1549.4	1525.4	1495.9	1460.9	1383.6
12.5°	1545.7	1545.7	1562.3	1549.4	1553.1	1566.0	1556.7	1551.2	1519.9	1490.4	1422.3
15°	1523.6	1531.0	1556.7	1577.0	1595.4	1589.9	1584.4	1567.8	1540.2	1507.0	1435.2
17.5°	1529.1	1532.8	1573.3	1610.2	1601.0	1597.3	1626.8	1591.7	1564.1	1527.3	1446.2
20°	1549.4	1560.4	1606.5	1654.4	1663.6	1663.6	1652.5	1632.3	1593.6	1543.8	1466.5
22.5°	1569.6	1573.3	1648.9	1709.7	1718.9	1694.9	1704.1	1645.2	1608.3	1580.7	1486.7
25°	1647.0	1639.6	1720.7	1768.6	1763.1	1739.1	1729.9	1678.3	1663.6	1613.9	1531.0
27.5°	1752.0	1720.7	1799.9	1829.4	1799.9	1807.3	1781.5	1726.2	1694.9	1665.4	1551.2
30°	1816.5	1834.9	1877.3	1906.8	1857.0	1858.9	1846.0	1785.2	1737.3	1744.7	1619.4
32.5°	1916.0	1928.9	1960.2	1973.1	1934.4	1930.7	1917.8	1869.9	1834.9	1827.6	1711.5
35°	2022.8	2046.8	2048.6	2052.3	2017.3	2032.1	2013.6	1945.5	1963.9	1976.8	1822.0
37.5°	2127.9	2105.7	2142.6	2159.2	2120.5	2120.5	2126.0	2080.0	2113.1	2151.8	1978.6
40°	2168.4	2177.6	2242.1	2229.2	2275.2	2247.6	2267.9	2256.8	2284.5	2372.9	2199.7
42.5°	2210.8	2221.8	2308.4	2332.4	2387.6	2396.8	2426.3	2428.2	2509.2	2654.8	2411.6
45°	2291.8	2273.4	2391.3	2450.3	2540.5	2566.3	2601.3	2630.8	2757.9	2929.3	2652.9
47.5°	2365.5	2339.7	2474.2	2592.1	2702.7	2708.2	2804.0	2835.3	2986.4	3181.7	2892.4
50°	2468.7	2477.9	2535.0	2737.7	2850.0	2914.5	2980.8	3084.0	3251.7	3459.8	3065.6
52.5°	2575.5	2566.3	2662.1	2861.1	3038.0	3061.9	3211.1	3327.2	3509.6	3666.2	3143.0
55°	2706.3	2717.4	2754.2	3015.8	3240.6	3297.7	3465.4	3587.0	3785.9	3754.6	3168.8
57.5°	2837.1	2826.1	2909.0	3189.0	3494.8	3537.2	3760.1	3832.0	3966.5	3813.6	3104.3
60°	2966.1	2986.4	3021.4	3384.3	3773.0	3835.7	4012.5	4049.4	4078.9	3841.2	3054.5
62.5°	3113.5	3065.6	3174.3	3590.6	4023.6	4154.4	4294.4	4148.9	4123.1	3791.5	2940.3
65°	3187.2	3201.9	3343.8	3826.5	4357.0	4452.8	4471.3	4283.3	4150.7	3680.9	2833.5
67.5°	3301.4	3321.7	3502.2	4067.8	4699.7	4753.1	4686.8	4404.9	4126.8	3537.2	2448.4
70°	3316.1	3365.9	3714.1	4320.2	4915.3	4961.3	4909.7	4486.0	3933.3	2971.6	1812.8
72.5°	3238.8	3327.2	3765.7	4463.9	5095.8	5211.9	4922.6	4200.4	3170.6	1895.7	928.5
75°	2446.6	2520.3	3446.9	4250.2	4775.2	4802.9	4322.0	3205.6	1805.5	646.6	237.7
77.5°	1267.5	1394.6	2301.0	3248.0	3638.5	3609.1	3008.5	1888.4	620.9	169.5	95.8
80°	727.7	759.0	1005.9	1823.9	2288.1	2175.8	1663.6	814.3	272.7	84.7	62.6
82.5°	359.2	403.5	541.6	816.1	1144.1	941.4	624.5	488.2	152.9	46.1	55.3
85°	77.4	81.1	276.3	390.6	464.3	305.8	213.7	410.8	55.3	27.6	53.4
87.5°	55.3	53.4	77.4	175.0	129.0	79.2	127.1	215.5	12.9	12.9	11.1
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°	1420.4	1420.4	1420.4	1420.4	1420.4	1420.4	1420.4	1420.4	1420.4	1420.4	1420.4
2.5°	1420.4	1403.8	1385.4	1350.4	1341.2	1335.7	1304.3	1302.5	1297.0	1284.1	1278.6
5°	1381.7	1354.1	1319.1	1282.2	1252.8	1199.3	1134.9	1101.7	1061.2	1063.0	1050.1
7.5°	1376.2	1324.6	1274.9	1197.5	1103.5	1004.1	904.6	840.1	794.0	766.4	771.9
10°	1350.4	1311.7	1230.7	1087.0	935.9	784.8	657.7	561.9	506.6	464.3	477.2
12.5°	1361.5	1285.9	1171.7	980.1	764.6	578.5	420.0	327.9	287.4	272.7	276.3
15°	1354.1	1285.9	1136.7	864.0	600.6	392.4	272.7	243.2	235.8	235.8	232.1
17.5°	1376.2	1300.7	1077.7	749.8	431.1	261.6	234.0	228.4	222.9	222.9	222.9
20°	1407.5	1308.0	1037.2	622.7	304.0	230.3	219.2	215.5	213.7	213.7	211.9
22.5°	1409.4	1300.7	961.7	482.7	234.0	217.4	208.2	206.3	206.3	202.7	202.7
25°	1420.4	1308.0	880.6	362.9	217.4	204.5	197.1	195.3	197.1	195.3	193.4
27.5°	1448.0	1320.9	799.6	265.3	204.5	193.4	187.9	186.1	186.1	186.1	182.4
30°	1483.1	1320.9	709.3	219.2	193.4	182.4	176.9	175.0	173.2	173.2	173.2
32.5°	1556.7	1363.3	598.7	195.3	178.7	169.5	164.0	164.0	162.1	162.1	160.3
35°	1648.9	1392.8	486.4	180.5	165.8	156.6	151.1	151.1	149.2	149.2	147.4
37.5°	1763.1	1466.5	372.1	169.5	152.9	143.7	138.2	138.2	138.2	136.3	136.3
40°	1925.2	1542.0	276.3	154.8	140.0	130.8	127.1	125.3	123.4	123.4	119.7
42.5°	2098.4	1658.1	206.3	143.7	129.0	121.6	116.1	110.5	110.5	105.0	105.0
45°	2286.3	1759.4	167.6	130.8	117.9	108.7	103.2	99.5	94.0	90.3	90.3
47.5°	2470.5	1822.0	147.4	116.1	106.9	99.5	94.0	86.6	79.2	77.4	75.5
50°	2619.8	1840.5	130.8	105.0	97.6	90.3	82.9	73.7	66.3	62.6	60.8
52.5°	2619.8	1739.1	117.9	94.0	88.4	81.1	71.8	60.8	51.6	47.9	46.1
55°	2619.8	1578.9	105.0	86.6	79.2	73.7	60.8	49.7	40.5	35.0	33.2
57.5°	2581.1	1385.4	94.0	77.4	70.0	62.6	51.6	38.7	29.5	23.9	23.9
60°	2474.2	1182.8	81.1	68.2	60.8	51.6	40.5	27.6	18.4	12.9	12.9
62.5°	2337.9	941.4	70.0	57.1	49.7	42.4	31.3	18.4	7.4	3.7	3.7
65°	2100.2	694.5	60.8	47.9	38.7	31.3	20.3	7.4	0.0	0.0	0.0
67.5°	1733.6	464.3	47.9	38.7	33.2	22.1	12.9	1.8	0.0	0.0	0.0
70°	1219.6	263.4	36.8	27.6	23.9	14.7	3.7	0.0	0.0	0.0	0.0
72.5°	501.1	116.1	25.8	20.3	16.6	7.4	0.0	0.0	0.0	0.0	0.0
75°	136.3	51.6	16.6	11.1	9.2	1.8	0.0	0.0	0.0	0.0	0.0
77.5°	79.2	35.0	7.4	3.7	3.7	0.0	0.0	0.0	0.0	0.0	0.0
80°	62.6	16.6	3.7	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	62.6	9.2	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	53.4	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	7.4	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)