

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: P401747

Luminaire Tested: **ENT-SA1E-827-U-T2-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401747
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-12)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1E-827-U-T2-HSS
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 2700K, 1050mA LIGHTSQUARE WITH 16 LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3913 lumens
Efficiency: N/A
Efficacy: 68.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B0 - U0 - G1

Input Watts (W): 57.2
Input Voltage (V): NR
Input Current (Ain): 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

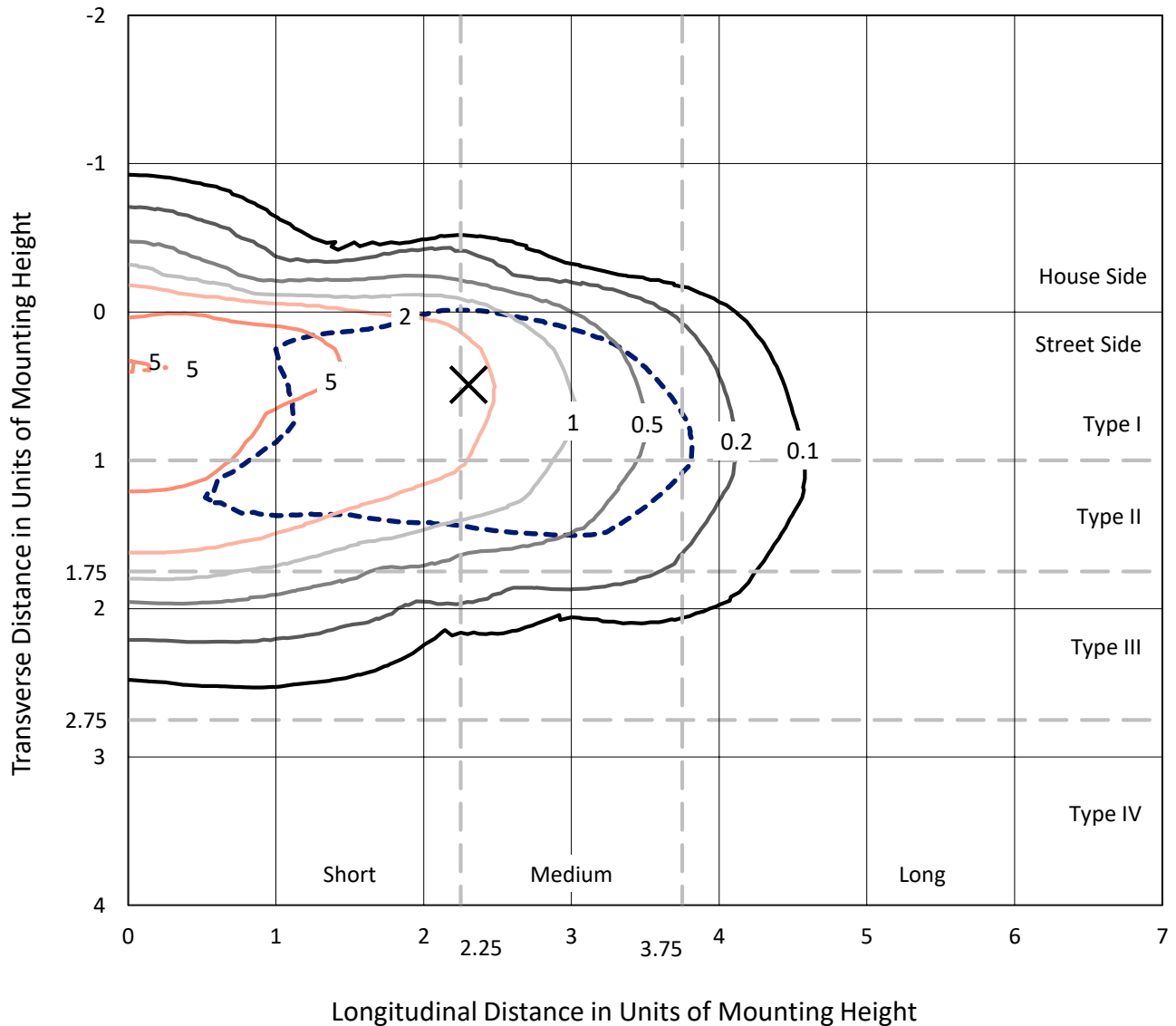


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

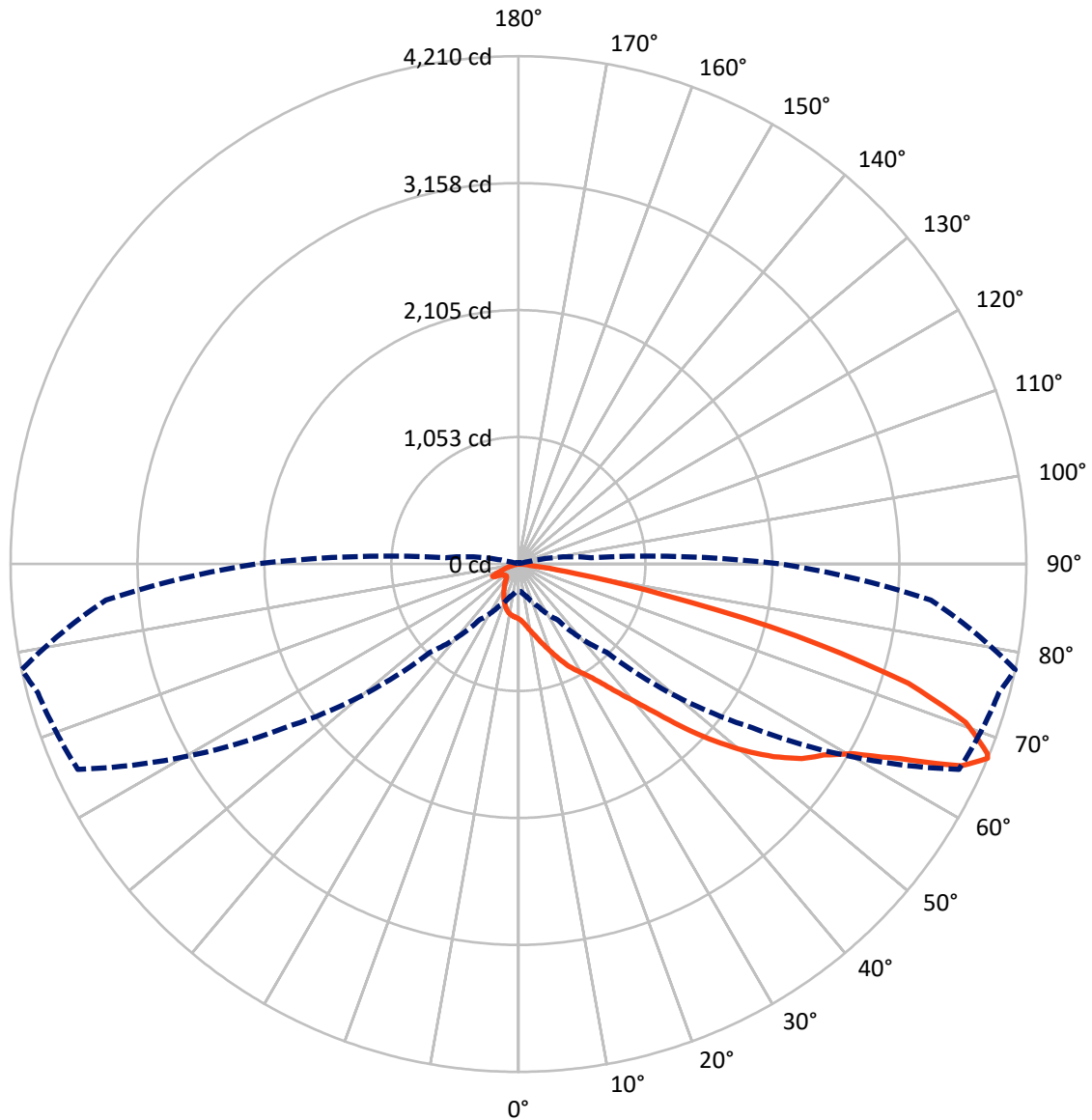


Based on 10 foot mounting height. Maximum calculated value = 7.1 fc
 Type II - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral - - - Horizontal Cone Through 67-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	276.1	0.0	276.1
	% Fixture	7.1	0.0	7.1
Street Side	Lumens	3636.9	0.0	3636.9
	% Fixture	92.9	0.0	92.9
Total	Lumens	3913.0	0.0	3913.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.8	1.1
10°-20°	125.4	3.2
20°-30°	221.6	5.7
30°-40°	390.8	10.0
40°-50°	671.6	17.2
50°-60°	1011.0	25.8
60°-70°	994.9	25.4
70°-80°	434.7	11.1
80°-90°	19.3	0.5
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°	3913.0	100.0
0°-180°	3913.0	100.0



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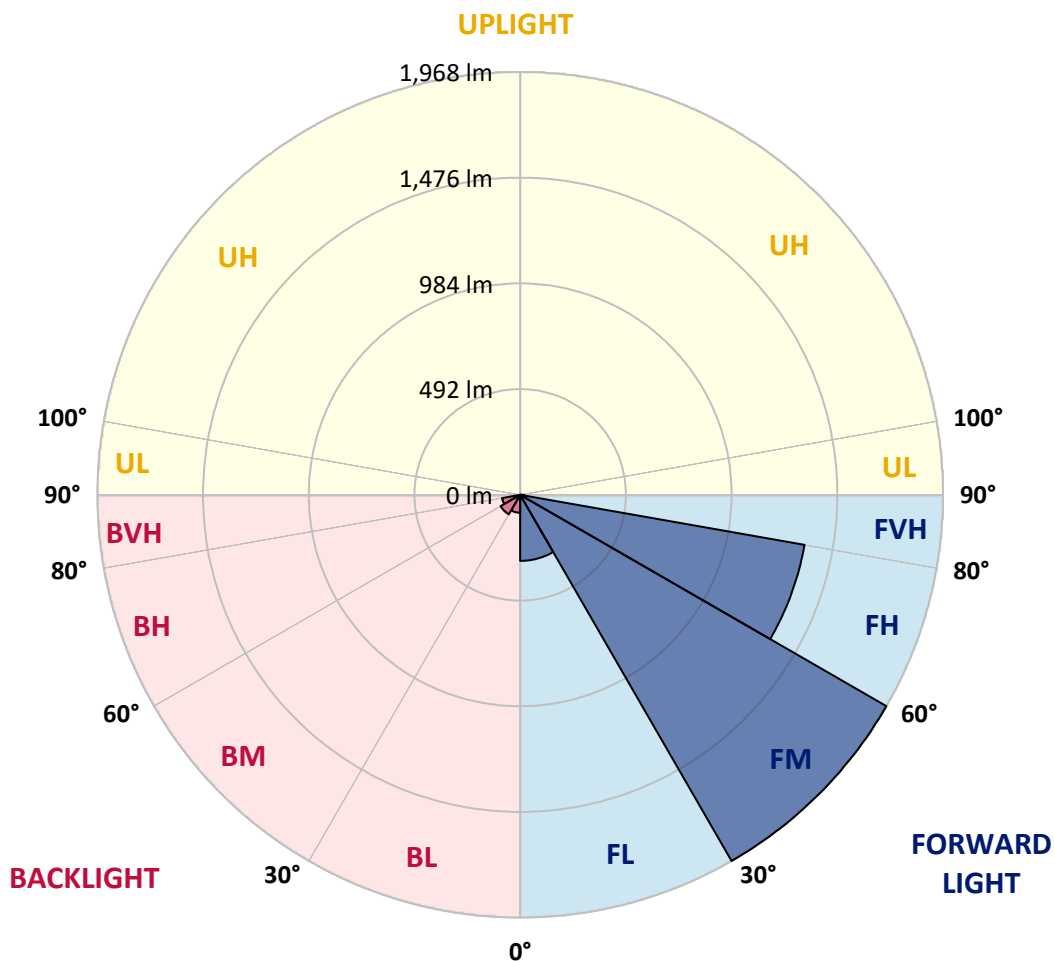
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	307.4	7.9			
FM (30°-60°)	1968.3	50.3			
FH (60°-80°)	1343.9	34.3			G1/1800
FVH (80°-90°)	17.3	0.4			G1/100
BL (0°-30°)	83.4	2.1	B0/110		
BM (30°-60°)	105.0	2.7	B0/220		
BH (60°-80°)	85.6	2.2	B0/110		G0/110
BVH (80°-90°)	2.0	0.1			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 II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	454.3	454.3	454.3	454.3	454.3	454.3	454.3	454.3	454.3	454.3	454.3
2.5°	521.2	523.4	520.5	518.3	512.4	505.0	497.7	486.7	474.9	470.5	463.1
5°	585.2	585.2	585.2	579.3	574.2	560.2	543.3	526.4	504.3	496.2	479.3
7.5°	619.0	619.7	621.9	621.9	619.0	609.4	591.1	571.9	538.9	527.8	500.6
10°	622.7	625.6	631.5	640.3	646.9	652.1	641.0	620.5	580.8	567.5	527.8
12.5°	613.1	614.6	624.1	640.3	661.6	683.0	683.7	671.2	627.1	608.7	560.9
15°	591.1	593.3	607.2	633.0	666.0	704.3	726.3	722.7	681.5	660.2	597.7
17.5°	555.8	558.0	575.6	613.8	662.4	718.2	765.3	783.7	735.1	714.6	635.2
20°	554.3	555.0	561.7	590.3	647.7	726.3	803.5	846.9	800.6	778.5	679.3
22.5°	648.4	642.5	627.8	609.4	634.4	724.1	838.1	913.8	881.4	846.9	730.0
25°	753.5	755.7	739.6	696.2	664.6	720.4	864.5	989.5	957.2	922.6	782.2
27.5°	863.8	860.1	846.2	806.5	753.5	746.9	883.6	1050.5	1029.9	988.0	828.5
30°	971.1	968.2	957.9	917.5	860.1	815.3	898.4	1105.7	1099.0	1052.7	866.0
32.5°	1093.9	1099.0	1085.8	1032.9	963.0	907.9	930.0	1163.7	1182.9	1126.2	905.0
35°	1236.5	1236.5	1209.3	1160.8	1088.8	1011.6	993.2	1227.7	1289.4	1228.4	966.7
37.5°	1354.1	1363.7	1347.5	1277.7	1210.1	1129.2	1089.5	1306.4	1421.0	1359.3	1049.8
40°	1446.8	1462.9	1463.7	1394.6	1332.1	1279.2	1224.0	1417.4	1586.4	1507.1	1149.0
42.5°	1532.8	1535.7	1548.2	1508.5	1446.0	1432.1	1375.5	1549.0	1793.0	1699.7	1281.4
45°	1642.3	1648.2	1640.9	1611.4	1557.8	1576.2	1544.5	1715.8	2025.3	1946.7	1437.2
47.5°	1803.3	1817.3	1806.3	1753.3	1687.9	1722.5	1699.7	1882.0	2287.8	2192.2	1606.3
50°	1954.0	1965.1	1976.8	1959.9	1894.5	1861.4	1833.5	2057.7	2512.7	2431.9	1772.4
52.5°	1970.2	1980.5	2045.2	2104.7	2148.1	2061.4	1973.9	2235.6	2720.8	2653.1	1924.6
55°	1865.1	1871.7	1979.8	2097.4	2296.6	2326.0	2180.4	2411.3	2895.0	2848.7	2026.8
57.5°	1572.5	1600.4	1754.1	1934.2	2259.8	2483.3	2473.8	2615.7	3008.2	2986.9	2158.4
60°	1032.9	1063.8	1247.5	1520.3	1989.3	2441.4	2795.8	2922.2	3167.0	3190.5	2389.2
62.5°	535.2	571.2	732.9	974.8	1441.6	2126.0	2905.3	3425.8	3471.4	3551.5	2800.9
65°	305.8	313.2	394.0	571.2	892.5	1522.5	2773.7	3924.2	3872.0	4034.5	3326.5
67°	227.2	227.2	283.8	388.2	565.3	1035.1	2365.7	4029.3	4124.2	4210.2	3432.4
67.5°	203.6	214.7	263.2	358.0	507.3	918.2	2213.5	4001.4	4140.4	4194.0	3395.6
70°	139.7	147.0	188.9	256.6	341.8	477.8	1451.2	3539.0	3988.9	3934.5	3077.3
72.5°	83.8	86.7	125.0	184.5	255.1	255.8	791.8	2686.2	3380.2	3379.5	2513.5
75°	52.2	55.1	73.5	123.5	178.6	160.3	366.1	1827.6	2427.5	2380.4	1684.2
77.5°	29.4	33.8	44.1	67.6	113.2	102.2	154.4	1024.1	1311.5	1230.6	836.6
80°	11.8	14.0	25.0	32.3	64.0	61.0	63.2	360.2	530.8	478.6	280.1
82.5°	2.9	3.7	8.8	15.4	25.0	25.0	19.8	98.5	125.7	116.9	72.0
85°	0.0	0.0	0.7	0.7	0.7	1.5	5.1	11.0	13.2	15.4	11.8
87.5°	0.0	0.0	0.0	0.7	0.7	0.7	1.5	2.2	2.2	2.2	2.2
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°	454.3	454.3	454.3	454.3	454.3	454.3	454.3	454.3	454.3	454.3	454.3
2.5°	457.3	452.1	441.8	430.8	419.8	410.9	403.6	393.3	391.8	391.8	391.8
5°	466.8	455.1	431.5	408.0	384.5	363.2	347.7	335.2	324.2	320.5	323.5
7.5°	480.8	459.5	418.3	377.1	340.4	310.2	288.2	270.5	262.4	258.0	254.4
10°	499.2	466.1	400.7	340.4	294.1	258.0	234.5	217.6	209.5	204.4	205.1
12.5°	519.0	471.2	378.6	300.7	249.2	216.1	196.3	182.3	169.1	161.0	163.2
15°	538.9	474.9	351.4	263.9	214.7	185.3	157.3	132.3	123.5	122.0	121.3
17.5°	560.9	474.2	321.3	229.4	185.3	144.1	116.2	113.2	112.5	112.5	111.7
20°	583.7	470.5	286.7	200.7	155.9	109.5	105.1	103.7	101.5	100.7	100.0
22.5°	608.7	463.9	255.1	175.7	116.2	100.0	94.1	89.7	86.0	83.8	84.5
25°	631.5	451.4	224.2	152.2	99.2	89.7	81.6	75.0	71.3	68.4	69.1
27.5°	646.9	429.3	197.8	122.8	91.2	79.4	69.8	63.2	58.1	55.9	55.9
30°	648.4	397.7	174.2	100.7	83.1	69.8	59.5	52.2	49.3	47.8	47.0
32.5°	646.9	365.4	156.6	92.6	75.7	61.0	50.7	45.6	42.6	41.2	41.2
35°	654.3	332.3	140.4	85.3	67.6	53.7	44.8	39.7	37.5	36.0	36.0
37.5°	676.3	309.5	123.5	77.9	60.3	47.0	40.4	36.0	33.8	32.3	32.3
40°	706.5	290.4	102.9	70.6	52.9	42.6	36.8	33.1	30.1	28.7	28.7
42.5°	759.4	283.0	86.0	63.2	46.3	38.2	33.8	29.4	26.5	25.0	25.0
45°	838.1	286.7	78.7	56.6	41.9	34.6	30.1	25.7	22.8	22.1	22.1
47.5°	924.8	302.1	73.5	50.7	38.2	32.3	27.2	22.8	19.8	19.1	19.1
50°	1021.9	326.4	69.1	44.8	34.6	29.4	24.3	19.8	17.6	16.9	16.9
52.5°	1114.5	357.3	64.7	40.4	32.3	26.5	21.3	17.6	16.2	15.4	15.4
55°	1185.1	377.1	61.0	37.5	30.1	24.3	19.1	16.9	14.7	14.0	14.0
57.5°	1283.6	410.2	56.6	33.8	27.2	22.1	17.6	15.4	13.2	13.2	13.2
60°	1483.5	499.2	50.0	30.9	24.3	19.8	16.9	14.0	12.5	11.8	11.8
62.5°	1843.8	646.2	43.4	28.7	21.3	17.6	14.7	12.5	11.0	9.6	9.6
65°	2190.7	707.2	36.8	25.0	19.1	15.4	13.2	11.0	8.1	6.6	6.6
67°	2171.6	605.0	30.9	21.3	16.2	14.0	11.0	8.8	5.9	3.7	3.7
67.5°	2120.2	563.1	30.1	20.6	15.4	13.2	11.0	8.1	5.1	2.9	2.9
70°	1801.8	394.0	23.5	16.2	13.2	11.8	8.8	5.9	2.9	1.5	1.5
72.5°	1463.7	312.4	18.4	13.2	11.0	8.8	7.4	3.7	2.2	0.7	0.7
75°	1035.1	191.9	16.2	11.8	8.8	6.6	5.9	3.7	2.2	1.5	0.7
77.5°	510.9	88.2	13.2	10.3	8.1	6.6	5.1	4.4	3.7	2.9	1.5
80°	150.0	28.7	8.8	7.4	7.4	6.6	5.9	5.1	4.4	3.7	2.2
82.5°	33.8	10.3	2.9	3.7	5.1	5.1	5.1	3.7	2.9	1.5	0.7
85°	4.4	2.2	2.2	2.2	2.9	2.9	2.2	1.5	1.5	0.0	0.0
87.5°	1.5	1.5	1.5	2.2	2.2	2.2	1.5	0.7	0.7	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)