

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: P401765

Luminaire Tested: **ENT-SA1E-830-U-T2-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401765
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-830-U-T2-HSS
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 3000K, 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: 4230 lumens
Efficiency: N/A
Efficacy: 74.0 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

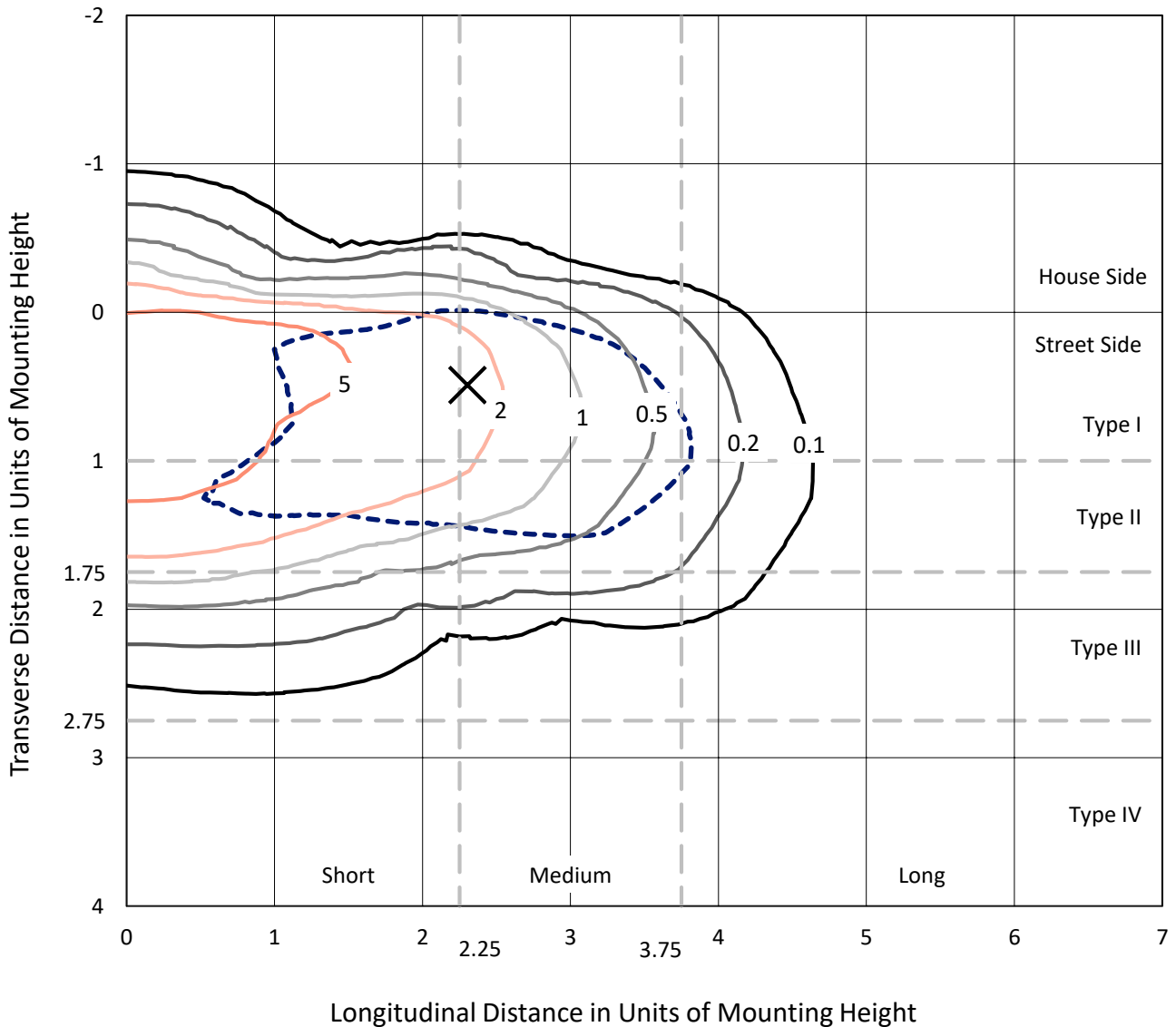
Input Watts (W): 57.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

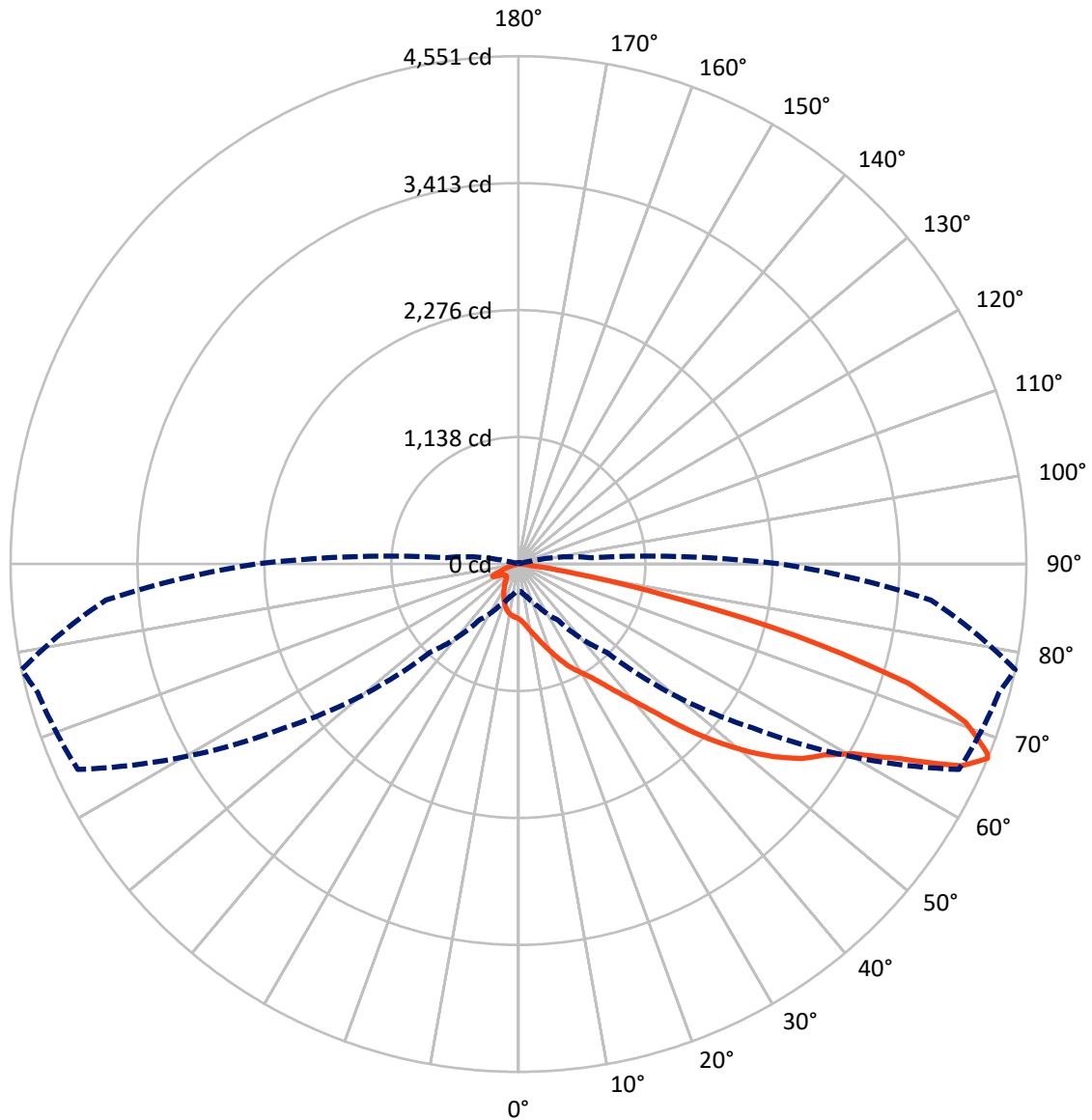


Based on 10 foot mounting height. Maximum calculated value = 7.7 fc
 Type II - Medium - Semi-Cutoff

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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	298.4	0.0	298.4
	% Fixture	7.1	0.0	7.1
Street Side	Lumens	3931.6	0.0	3931.6
	% Fixture	92.9	0.0	92.9
Total	Lumens	4230.0	0.0	4230.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.3	1.1
10°-20°	135.6	3.2
20°-30°	239.6	5.7
30°-40°	422.4	10.0
40°-50°	726.0	17.2
50°-60°	1092.9	25.8
60°-70°	1075.4	25.4
70°-80°	469.9	11.1
80°-90°	20.8	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°	4230.0	100.0
0°-180°	4230.0	100.0



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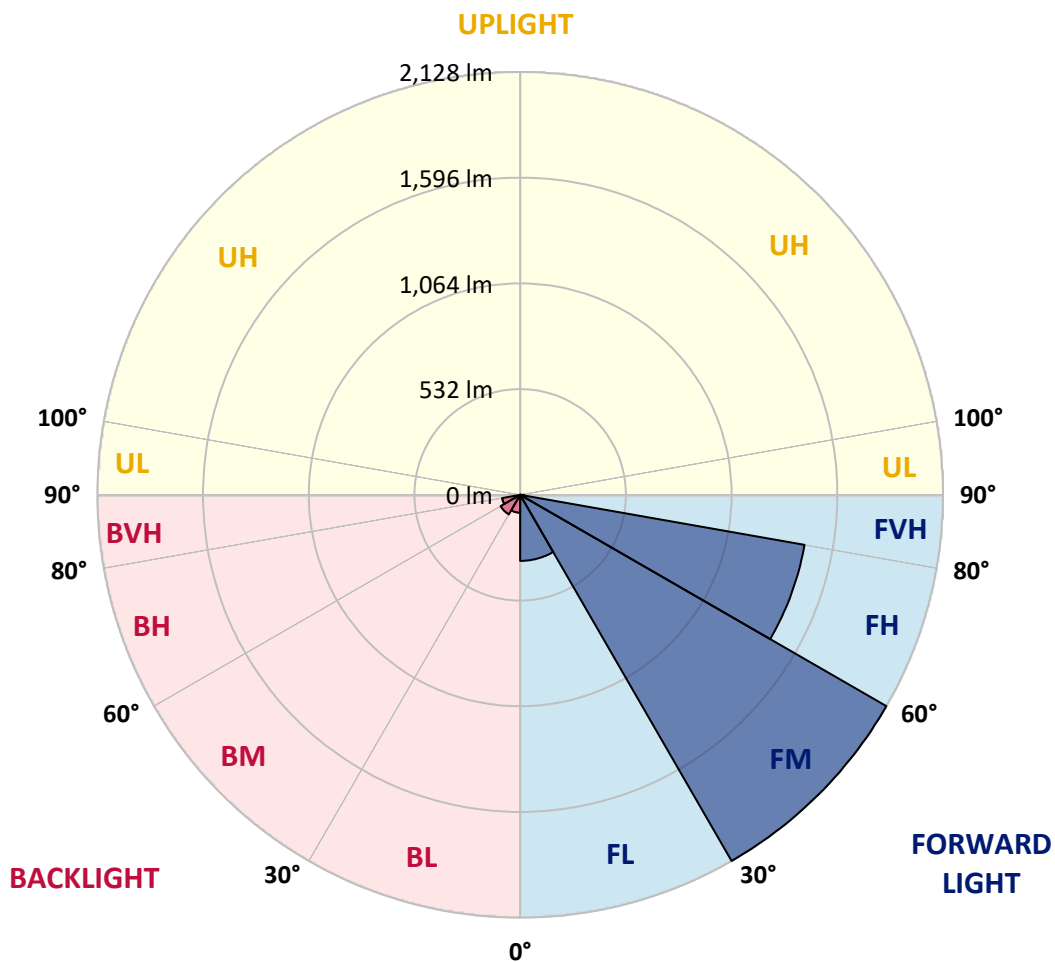
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	332.4	7.9			
FM	(30°-60°)	2127.7	50.3			
FH	(60°-80°)	1452.8	34.3			G1/1800
FVH	(80°-90°)	18.7	0.4			G1/100
BL	(0°-30°)	90.2	2.1	B0/110		
BM	(30°-60°)	113.5	2.7	B0/220		
BH	(60°-80°)	92.6	2.2	B0/110		G0/110
BVH	(80°-90°)	2.1	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°	491.1	491.1	491.1	491.1	491.1	491.1	491.1	491.1	491.1	491.1	491.1
2.5°	563.4	565.8	562.7	560.3	553.9	546.0	538.0	526.1	513.4	508.6	500.7
5°	632.6	632.6	632.6	626.2	620.7	605.6	587.3	569.0	545.2	536.4	518.1
7.5°	669.1	669.9	672.3	672.3	669.1	658.8	638.9	618.3	582.5	570.6	541.2
10°	673.1	676.3	682.7	692.2	699.3	704.9	693.0	670.7	627.8	613.5	570.6
12.5°	662.8	664.4	674.7	692.2	715.2	738.3	739.1	725.6	677.9	658.0	606.4
15°	638.9	641.3	656.4	684.2	720.0	761.3	785.2	781.2	736.7	713.6	646.1
17.5°	600.8	603.2	622.3	663.6	716.0	776.4	827.3	847.2	794.7	772.5	686.6
20°	599.2	600.0	607.2	638.1	700.1	785.2	868.6	915.5	865.4	841.6	734.3
22.5°	700.9	694.6	678.7	658.8	685.8	782.8	906.0	987.8	952.9	915.5	789.1
25°	814.6	817.0	799.5	752.6	718.4	778.8	934.6	1069.7	1034.7	997.4	845.6
27.5°	933.8	929.8	914.7	871.8	814.6	807.4	955.2	1135.6	1113.4	1068.1	895.6
30°	1049.8	1046.6	1035.5	991.8	929.8	881.3	971.1	1195.2	1188.1	1138.0	936.2
32.5°	1182.5	1188.1	1173.8	1116.6	1041.1	981.5	1005.3	1258.0	1278.7	1217.5	978.3
35°	1336.7	1336.7	1307.3	1254.8	1177.0	1093.5	1073.6	1327.2	1393.9	1328.0	1045.0
37.5°	1463.8	1474.2	1456.7	1381.2	1308.1	1220.7	1177.8	1412.2	1536.2	1469.4	1134.8
40°	1564.0	1581.5	1582.3	1507.6	1440.0	1382.8	1323.2	1532.2	1715.0	1629.1	1242.1
42.5°	1657.0	1660.1	1673.6	1630.7	1563.2	1548.1	1486.9	1674.4	1938.3	1837.4	1385.2
45°	1775.4	1781.7	1773.8	1742.0	1684.0	1703.8	1669.7	1854.8	2189.4	2104.4	1553.6
47.5°	1949.4	1964.5	1952.6	1895.4	1824.6	1862.0	1837.4	2034.4	2473.1	2369.8	1736.4
50°	2112.3	2124.2	2137.0	2118.7	2048.0	2012.2	1982.0	2224.4	2716.3	2628.9	1916.0
52.5°	2129.8	2140.9	2210.9	2275.2	2322.1	2228.4	2133.8	2416.7	2941.2	2868.1	2080.5
55°	2016.2	2023.3	2140.1	2267.3	2482.7	2514.4	2357.1	2606.6	3129.5	3079.5	2191.0
57.5°	1699.9	1730.1	1896.2	2090.9	2442.9	2684.5	2674.2	2827.6	3251.9	3228.9	2333.3
60°	1116.6	1149.9	1348.6	1643.4	2150.5	2639.2	3022.3	3158.9	3423.6	3449.0	2582.8
62.5°	578.5	617.5	792.3	1053.8	1558.4	2298.3	3140.7	3703.3	3752.6	3839.2	3027.8
65°	330.6	338.5	426.0	617.5	964.8	1645.8	2998.4	4242.1	4185.7	4361.3	3596.0
67°	245.6	245.6	306.8	419.6	611.1	1118.9	2557.4	4355.8	4458.3	4551.3	3710.5
67.5°	220.1	232.1	284.5	387.0	548.3	992.6	2392.9	4325.6	4475.8	4533.8	3670.7
70°	151.0	158.9	204.2	277.4	369.5	516.6	1568.7	3825.7	4312.1	4253.3	3326.6
72.5°	90.6	93.8	135.1	199.5	275.8	276.6	855.9	2903.8	3654.0	3653.3	2717.1
75°	56.4	59.6	79.5	133.5	193.1	173.2	395.8	1975.6	2624.1	2573.3	1820.7
77.5°	31.8	36.6	47.7	73.1	122.4	110.5	166.9	1107.0	1417.8	1330.3	904.4
80°	12.7	15.1	27.0	35.0	69.1	66.0	68.3	389.4	573.8	517.4	302.8
82.5°	3.2	4.0	9.5	16.7	27.0	27.0	21.5	106.5	135.9	126.4	77.9
85°	0.0	0.0	0.8	0.8	0.8	1.6	5.6	11.9	14.3	16.7	12.7
87.5°	0.0	0.0	0.0	0.8	0.8	0.8	1.6	2.4	2.4	2.4	2.4
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°	491.1	491.1	491.1	491.1	491.1	491.1	491.1	491.1	491.1	491.1	491.1
2.5°	494.3	488.7	477.6	465.7	453.8	444.2	436.3	425.2	423.6	423.6	423.6
5°	504.6	491.9	466.5	441.1	415.6	392.6	375.9	362.4	350.5	346.5	349.7
7.5°	519.7	496.7	452.2	407.7	367.9	335.4	311.5	292.5	283.7	278.9	275.0
10°	539.6	503.8	433.1	367.9	317.9	278.9	253.5	235.2	226.5	220.9	221.7
12.5°	561.1	509.4	409.3	325.0	269.4	233.6	212.2	197.1	182.8	174.0	176.4
15°	582.5	513.4	379.9	285.3	232.1	200.3	170.1	143.0	133.5	131.9	131.1
17.5°	606.4	512.6	347.3	247.9	200.3	155.8	125.6	122.4	121.6	121.6	120.8
20°	631.0	508.6	309.9	217.0	168.5	118.4	113.6	112.1	109.7	108.9	108.1
22.5°	658.0	501.5	275.8	189.9	125.6	108.1	101.7	97.0	93.0	90.6	91.4
25°	682.7	487.9	242.4	164.5	107.3	97.0	88.2	81.1	77.1	73.9	74.7
27.5°	699.3	464.1	213.8	132.7	98.5	85.8	75.5	68.3	62.8	60.4	60.4
30°	700.9	429.9	188.3	108.9	89.8	75.5	64.4	56.4	53.2	51.7	50.9
32.5°	699.3	395.0	169.3	100.1	81.9	66.0	54.8	49.3	46.1	44.5	44.5
35°	707.3	359.2	151.8	92.2	73.1	58.0	48.5	42.9	40.5	38.9	38.9
37.5°	731.1	334.6	133.5	84.2	65.2	50.9	43.7	38.9	36.6	35.0	35.0
40°	763.7	313.9	111.3	76.3	57.2	46.1	39.7	35.8	32.6	31.0	31.0
42.5°	820.9	306.0	93.0	68.3	50.1	41.3	36.6	31.8	28.6	27.0	27.0
45°	906.0	309.9	85.0	61.2	45.3	37.4	32.6	27.8	24.6	23.8	23.8
47.5°	999.7	326.6	79.5	54.8	41.3	35.0	29.4	24.6	21.5	20.7	20.7
50°	1104.6	352.8	74.7	48.5	37.4	31.8	26.2	21.5	19.1	18.3	18.3
52.5°	1204.8	386.2	69.9	43.7	35.0	28.6	23.0	19.1	17.5	16.7	16.7
55°	1281.1	407.7	66.0	40.5	32.6	26.2	20.7	18.3	15.9	15.1	15.1
57.5°	1387.6	443.4	61.2	36.6	29.4	23.8	19.1	16.7	14.3	14.3	14.3
60°	1603.7	539.6	54.0	33.4	26.2	21.5	18.3	15.1	13.5	12.7	12.7
62.5°	1993.1	698.5	46.9	31.0	23.0	19.1	15.9	13.5	11.9	10.3	10.3
65°	2368.2	764.5	39.7	27.0	20.7	16.7	14.3	11.9	8.7	7.2	7.2
67°	2347.6	654.0	33.4	23.0	17.5	15.1	11.9	9.5	6.4	4.0	4.0
67.5°	2291.9	608.7	32.6	22.3	16.7	14.3	11.9	8.7	5.6	3.2	3.2
70°	1947.8	426.0	25.4	17.5	14.3	12.7	9.5	6.4	3.2	1.6	1.6
72.5°	1582.3	337.7	19.9	14.3	11.9	9.5	7.9	4.0	2.4	0.8	0.8
75°	1118.9	207.4	17.5	12.7	9.5	7.2	6.4	4.0	2.4	1.6	0.8
77.5°	552.3	95.4	14.3	11.1	8.7	7.2	5.6	4.8	4.0	3.2	1.6
80°	162.1	31.0	9.5	7.9	7.9	7.2	6.4	5.6	4.8	4.0	2.4
82.5°	36.6	11.1	3.2	4.0	5.6	5.6	5.6	4.0	3.2	1.6	0.8
85°	4.8	2.4	2.4	2.4	3.2	3.2	2.4	1.6	1.6	0.0	0.0
87.5°	1.6	1.6	1.6	2.4	2.4	2.4	1.6	0.8	0.8	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)