

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: P401567

Luminaire Tested: **ENV-SA1D-827-U-T2-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401567
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: ENV-SA1D-827-U-T2-HSS
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 2700K, 800mA 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: 3141 lumens
Efficiency: N/A
Efficacy: 72.9 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): 43.1
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

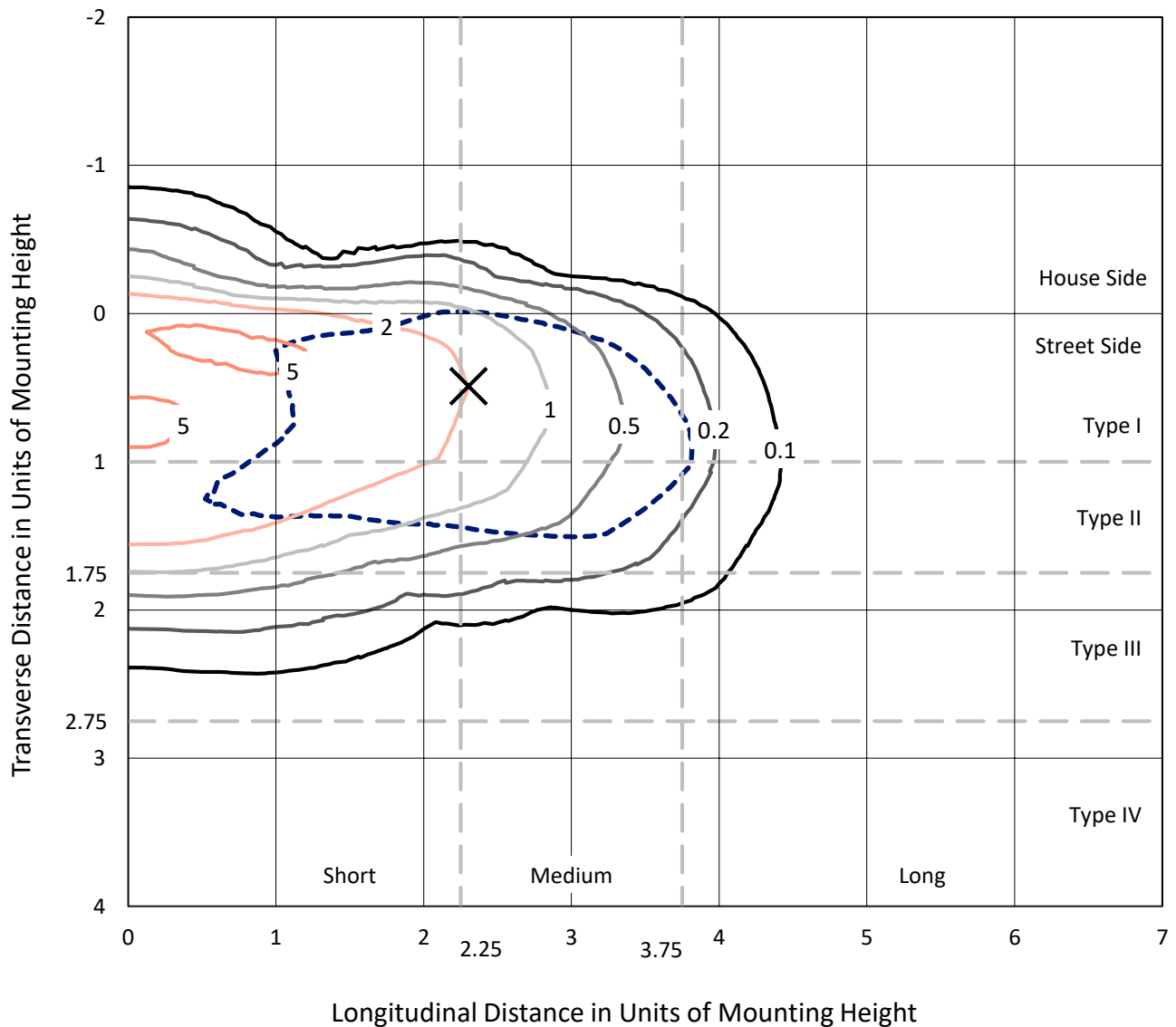


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

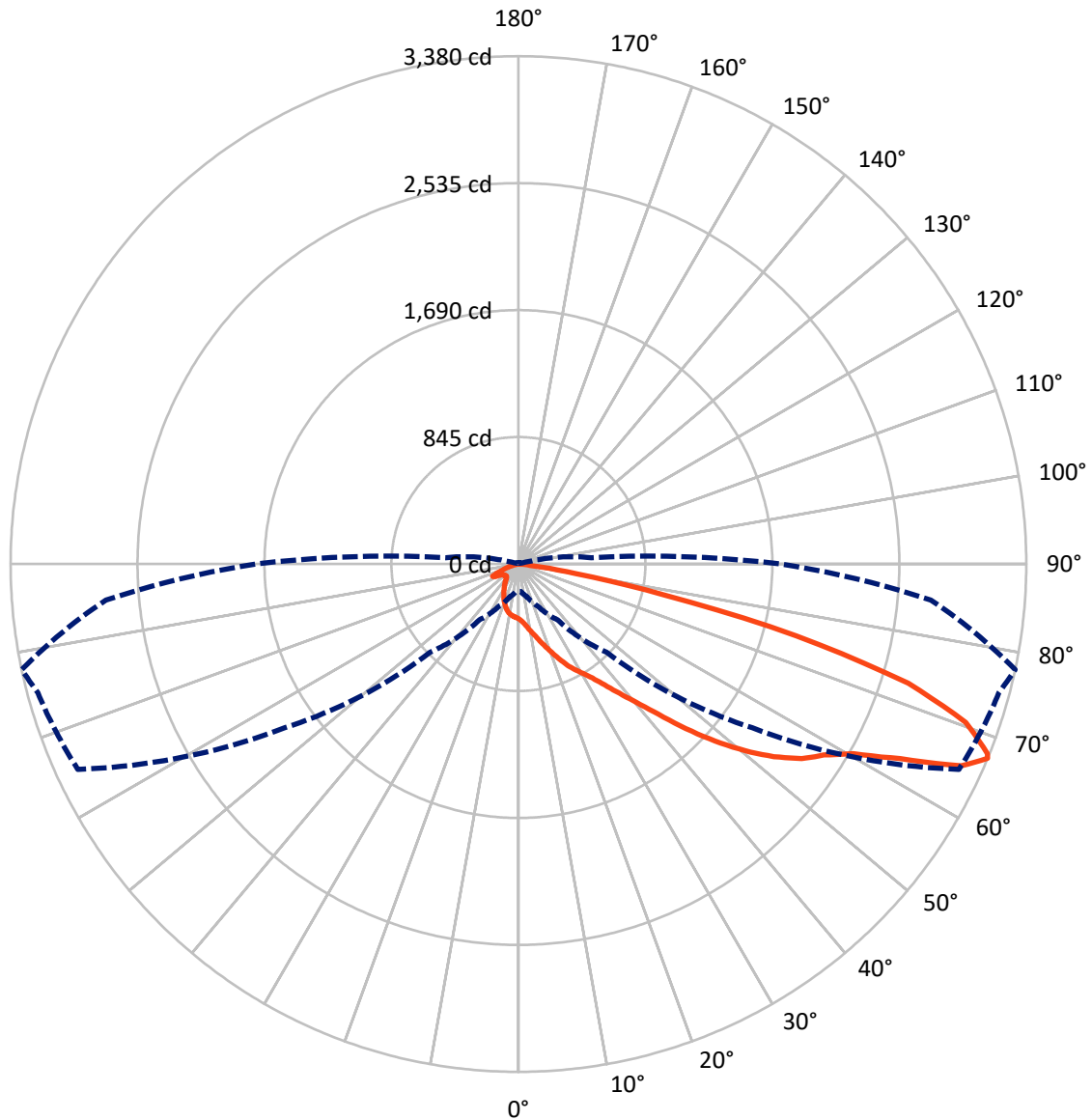


Based on 10 foot mounting height. Maximum calculated value = 5.7 fc
 Type II - Medium - Semi-Cutoff

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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	221.6	0.0	221.6
	% Fixture	7.1	0.0	7.1
Street Side	Lumens	2919.4	0.0	2919.4
	% Fixture	92.9	0.0	92.9
Total	Lumens	3141.0	0.0	3141.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.2	1.1
10°-20°	100.7	3.2
20°-30°	177.9	5.7
30°-40°	313.7	10.0
40°-50°	539.1	17.2
50°-60°	811.5	25.8
60°-70°	798.6	25.4
70°-80°	348.9	11.1
80°-90°	15.5	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°	3141.0	100.0
0°-180°	3141.0	100.0



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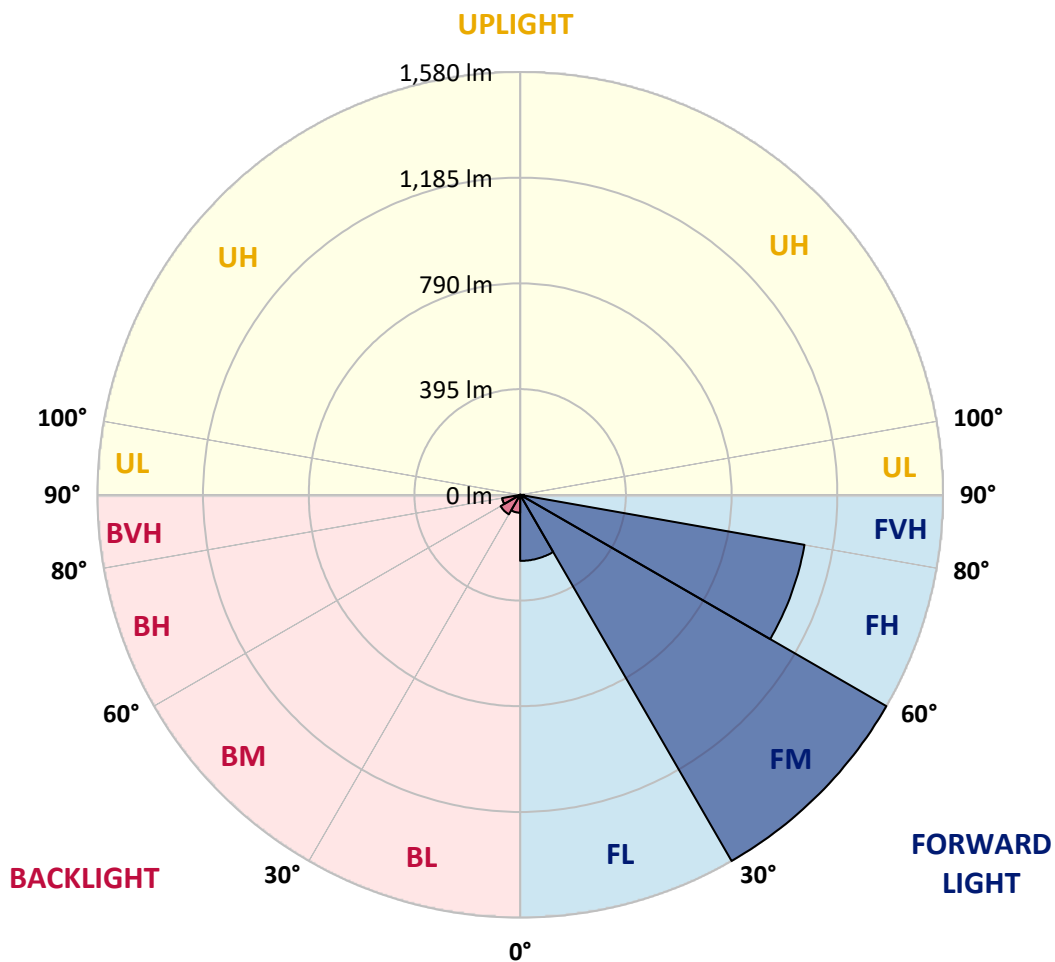
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	246.8	7.9			
FM (30°-60°)	1580.0	50.3			
FH (60°-80°)	1078.8	34.3			G1/1800
FVH (80°-90°)	13.9	0.4			G1/100
BL (0°-30°)	67.0	2.1	B0/110		
BM (30°-60°)	84.3	2.7	B0/220		
BH (60°-80°)	68.8	2.2	B0/110		G0/110
BVH (80°-90°)	1.6	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°	364.7	364.7	364.7	364.7	364.7	364.7	364.7	364.7	364.7	364.7	364.7
2.5°	418.4	420.2	417.8	416.0	411.3	405.4	399.5	390.7	381.2	377.7	371.8
5°	469.7	469.7	469.7	465.0	460.9	449.7	436.1	422.5	404.8	398.3	384.8
7.5°	496.9	497.5	499.2	499.2	496.9	489.2	474.4	459.1	432.6	423.7	401.9
10°	499.8	502.2	506.9	514.0	519.3	523.4	514.6	498.1	466.2	455.6	423.7
12.5°	492.2	493.3	501.0	514.0	531.1	548.2	548.8	538.8	503.4	488.6	450.3
15°	474.4	476.2	487.4	508.1	534.6	565.3	583.0	580.1	547.0	529.9	479.8
17.5°	446.1	447.9	462.1	492.7	531.7	576.5	614.3	629.1	590.1	573.6	509.9
20°	444.9	445.5	450.8	473.9	519.9	583.0	645.0	679.8	642.6	624.9	545.3
22.5°	520.5	515.8	504.0	489.2	509.3	581.3	672.7	733.5	707.5	679.8	586.0
25°	604.9	606.6	593.7	558.8	533.5	578.3	694.0	794.3	768.3	740.6	627.9
27.5°	693.4	690.4	679.2	647.4	604.9	599.6	709.3	843.3	826.7	793.1	665.1
30°	779.5	777.2	768.9	736.5	690.4	654.4	721.1	887.5	882.2	845.0	695.1
32.5°	878.1	882.2	871.6	829.1	773.0	728.8	746.5	934.1	949.5	904.0	726.4
35°	992.6	992.6	970.7	931.8	874.0	812.0	797.2	985.5	1035.1	986.1	776.0
37.5°	1087.0	1094.7	1081.7	1025.6	971.3	906.4	874.5	1048.6	1140.7	1091.1	842.7
40°	1161.3	1174.3	1174.9	1119.4	1069.3	1026.8	982.5	1137.7	1273.5	1209.7	922.3
42.5°	1230.4	1232.7	1242.8	1210.9	1160.7	1149.5	1104.1	1243.4	1439.3	1364.3	1028.6
45°	1318.3	1323.0	1317.1	1293.5	1250.4	1265.2	1239.8	1377.3	1625.8	1562.6	1153.7
47.5°	1447.5	1458.8	1449.9	1407.4	1354.9	1382.6	1364.3	1510.7	1836.4	1759.7	1289.4
50°	1568.5	1577.4	1586.8	1573.2	1520.7	1494.2	1471.7	1651.7	2017.0	1952.1	1422.8
52.5°	1581.5	1589.8	1641.7	1689.5	1724.3	1654.7	1584.4	1794.5	2184.0	2129.7	1544.9
55°	1497.1	1502.4	1589.2	1683.6	1843.5	1867.1	1750.3	1935.6	2323.9	2286.7	1626.9
57.5°	1262.2	1284.7	1408.0	1552.6	1814.0	1993.4	1985.7	2099.6	2414.7	2397.6	1732.6
60°	829.1	853.9	1001.4	1220.3	1596.8	1959.8	2244.2	2345.7	2542.2	2561.1	1917.9
62.5°	429.6	458.5	588.3	782.5	1157.2	1706.6	2332.1	2749.9	2786.5	2850.8	2248.3
65°	245.5	251.4	316.3	458.5	716.4	1222.1	2226.5	3150.0	3108.1	3238.5	2670.2
67°	182.3	182.3	227.8	311.6	453.8	830.9	1899.0	3234.4	3310.5	3379.6	2755.2
67.5°	163.5	172.3	211.3	287.4	407.2	737.0	1776.8	3212.0	3323.5	3366.6	2725.7
70°	112.1	118.0	151.7	205.9	274.4	383.6	1164.9	2840.8	3201.9	3158.3	2470.2
72.5°	67.3	69.6	100.3	148.1	204.8	205.4	635.5	2156.3	2713.3	2712.7	2017.6
75°	41.9	44.3	59.0	99.1	143.4	128.6	293.9	1467.0	1948.5	1910.8	1351.9
77.5°	23.6	27.1	35.4	54.3	90.9	82.0	123.9	822.0	1052.8	987.8	671.5
80°	9.4	11.2	20.1	26.0	51.3	49.0	50.7	289.2	426.1	384.2	224.8
82.5°	2.4	3.0	7.1	12.4	20.1	20.1	15.9	79.1	100.9	93.8	57.8
85°	0.0	0.0	0.6	0.6	0.6	1.2	4.1	8.9	10.6	12.4	9.4
87.5°	0.0	0.0	0.0	0.6	0.6	0.6	1.2	1.8	1.8	1.8	1.8
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°	364.7	364.7	364.7	364.7	364.7	364.7	364.7	364.7	364.7	364.7	364.7
2.5°	367.0	362.9	354.7	345.8	337.0	329.9	324.0	315.7	314.5	314.5	314.5
5°	374.7	365.3	346.4	327.5	308.6	291.5	279.1	269.1	260.2	257.3	259.6
7.5°	385.9	368.8	335.8	302.7	273.2	249.0	231.3	217.2	210.7	207.1	204.2
10°	400.7	374.1	321.6	273.2	236.0	207.1	188.2	174.7	168.2	164.1	164.6
12.5°	416.6	378.3	303.9	241.4	200.0	173.5	157.6	146.3	135.7	129.2	131.0
15°	432.6	381.2	282.1	211.8	172.3	148.7	126.3	106.2	99.1	98.0	97.4
17.5°	450.3	380.6	257.9	184.1	148.7	115.7	93.2	90.9	90.3	90.3	89.7
20°	468.5	377.7	230.1	161.1	125.1	87.9	84.4	83.2	81.4	80.8	80.3
22.5°	488.6	372.4	204.8	141.0	93.2	80.3	75.5	72.0	69.0	67.3	67.9
25°	506.9	362.3	180.0	122.2	79.7	72.0	65.5	60.2	57.2	54.9	55.5
27.5°	519.3	344.6	158.7	98.5	73.2	63.7	56.1	50.7	46.6	44.8	44.8
30°	520.5	319.2	139.9	80.8	66.7	56.1	47.8	41.9	39.5	38.4	37.8
32.5°	519.3	293.3	125.7	74.4	60.8	49.0	40.7	36.6	34.2	33.0	33.0
35°	525.2	266.7	112.7	68.5	54.3	43.1	36.0	31.9	30.1	28.9	28.9
37.5°	542.9	248.4	99.1	62.6	48.4	37.8	32.5	28.9	27.1	26.0	26.0
40°	567.1	233.1	82.6	56.7	42.5	34.2	29.5	26.6	24.2	23.0	23.0
42.5°	609.6	227.2	69.0	50.7	37.2	30.7	27.1	23.6	21.2	20.1	20.1
45°	672.7	230.1	63.1	45.4	33.6	27.7	24.2	20.7	18.3	17.7	17.7
47.5°	742.4	242.5	59.0	40.7	30.7	26.0	21.8	18.3	15.9	15.3	15.3
50°	820.3	262.0	55.5	36.0	27.7	23.6	19.5	15.9	14.2	13.6	13.6
52.5°	894.6	286.8	51.9	32.5	26.0	21.2	17.1	14.2	13.0	12.4	12.4
55°	951.3	302.7	49.0	30.1	24.2	19.5	15.3	13.6	11.8	11.2	11.2
57.5°	1030.3	329.3	45.4	27.1	21.8	17.7	14.2	12.4	10.6	10.6	10.6
60°	1190.8	400.7	40.1	24.8	19.5	15.9	13.6	11.2	10.0	9.4	9.4
62.5°	1480.0	518.7	34.8	23.0	17.1	14.2	11.8	10.0	8.9	7.7	7.7
65°	1758.5	567.7	29.5	20.1	15.3	12.4	10.6	8.9	6.5	5.3	5.3
67°	1743.2	485.7	24.8	17.1	13.0	11.2	8.9	7.1	4.7	3.0	3.0
67.5°	1701.9	452.0	24.2	16.5	12.4	10.6	8.9	6.5	4.1	2.4	2.4
70°	1446.4	316.3	18.9	13.0	10.6	9.4	7.1	4.7	2.4	1.2	1.2
72.5°	1174.9	250.8	14.8	10.6	8.9	7.1	5.9	3.0	1.8	0.6	0.6
75°	830.9	154.0	13.0	9.4	7.1	5.3	4.7	3.0	1.8	1.2	0.6
77.5°	410.1	70.8	10.6	8.3	6.5	5.3	4.1	3.5	3.0	2.4	1.2
80°	120.4	23.0	7.1	5.9	5.9	5.3	4.7	4.1	3.5	3.0	1.8
82.5°	27.1	8.3	2.4	3.0	4.1	4.1	4.1	3.0	2.4	1.2	0.6
85°	3.5	1.8	1.8	1.8	2.4	2.4	1.8	1.2	1.2	0.0	0.0
87.5°	1.2	1.2	1.2	1.8	1.8	1.8	1.2	0.6	0.6	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)