

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: P401085

Luminaire Tested: **ENV-SA1B-727-U-T4FT-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401085  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-16)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENV-SA1B-727-U-T4FT-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 2700K, 450mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV FORWARD  
THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2030 lumens  
Efficiency: N/A  
Efficacy: 79.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B0 - U0 - G1

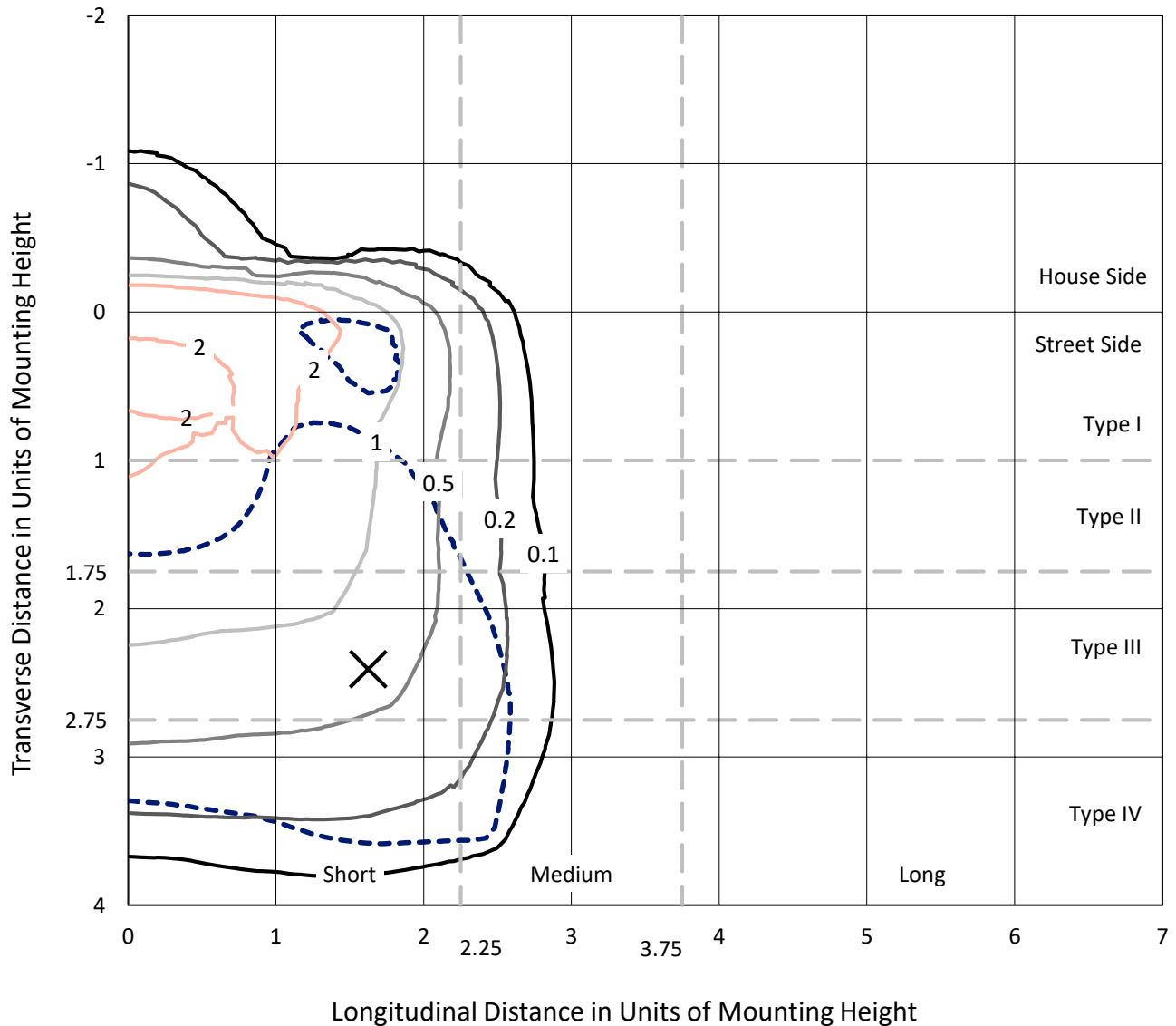
Input Watts (W): 25.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P401085  
 CATALOG NUMBER: ENV-SA1B-727-U-T4FT-HSS

### Iso-Footcandle Lines of Horizontal Illumination

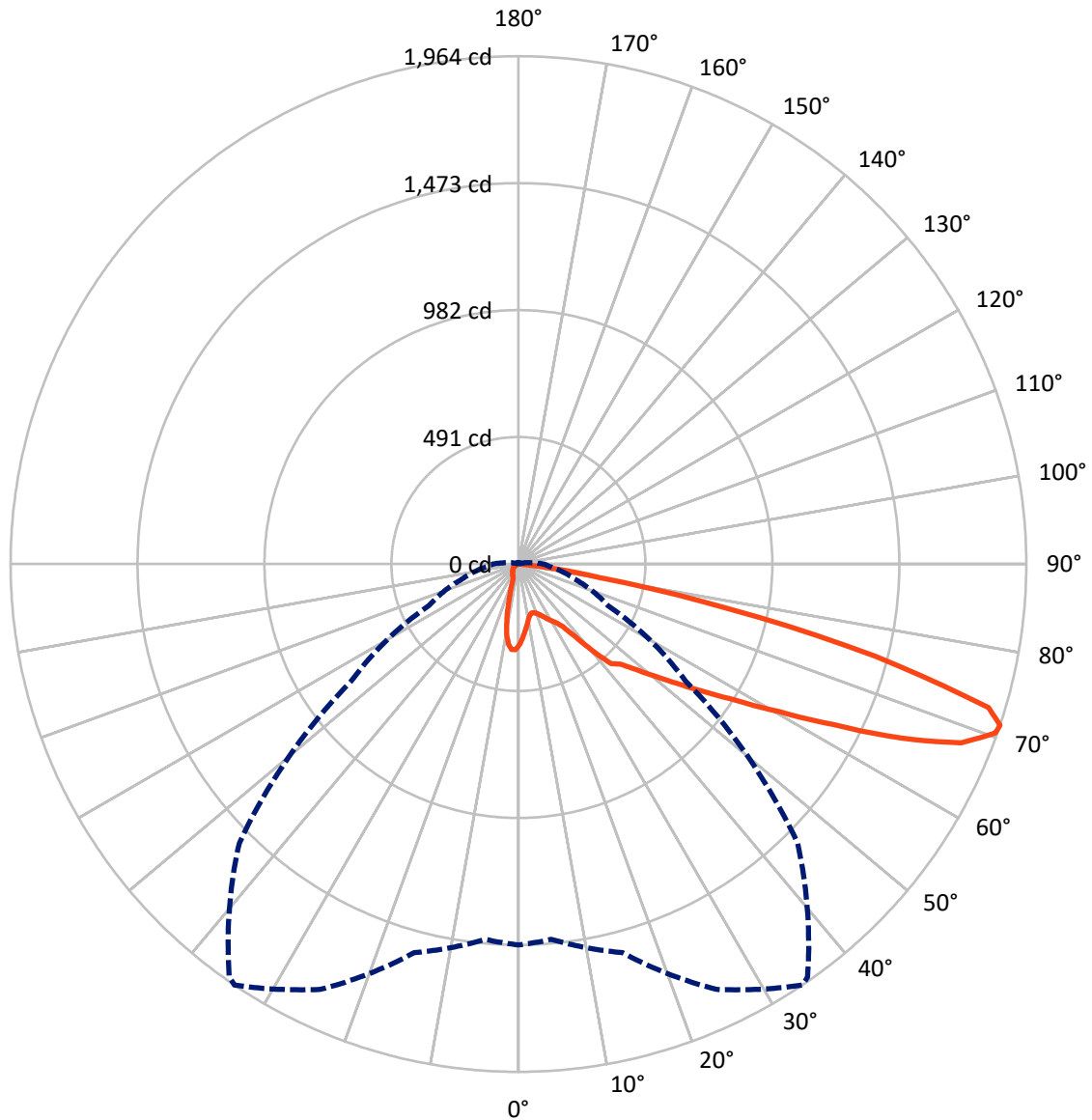
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.1 fc  
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P401085  
CATALOG NUMBER: ENV-SA1B-727-U-T4FT-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 34-Deg Lateral      - - - Horizontal Cone Through 71-Deg Vertical

REPORT NUMBER: P401085

CATALOG NUMBER: ENV-SA1B-727-U-T4FT-HSS

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	224.5	0.0	224.5
	% Fixture	11.1	0.0	11.1
<b>Street Side</b>	Lumens	1805.5	0.0	1805.5
	% Fixture	88.9	0.0	88.9
<b>Total</b>	Lumens	2030.0	0.0	2030.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	27.7	1.4
10°-20°	63.5	3.1
20°-30°	94.8	4.7
30°-40°	158.4	7.8
40°-50°	286.1	14.1
50°-60°	453.9	22.4
60°-70°	609.9	30.0
70°-80°	323.6	15.9
80°-90°	11.9	0.6
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°	2030.0	100.0
0°-180°	2030.0	100.0

**Coefficient of Utilization**



REPORT NUMBER: P401085

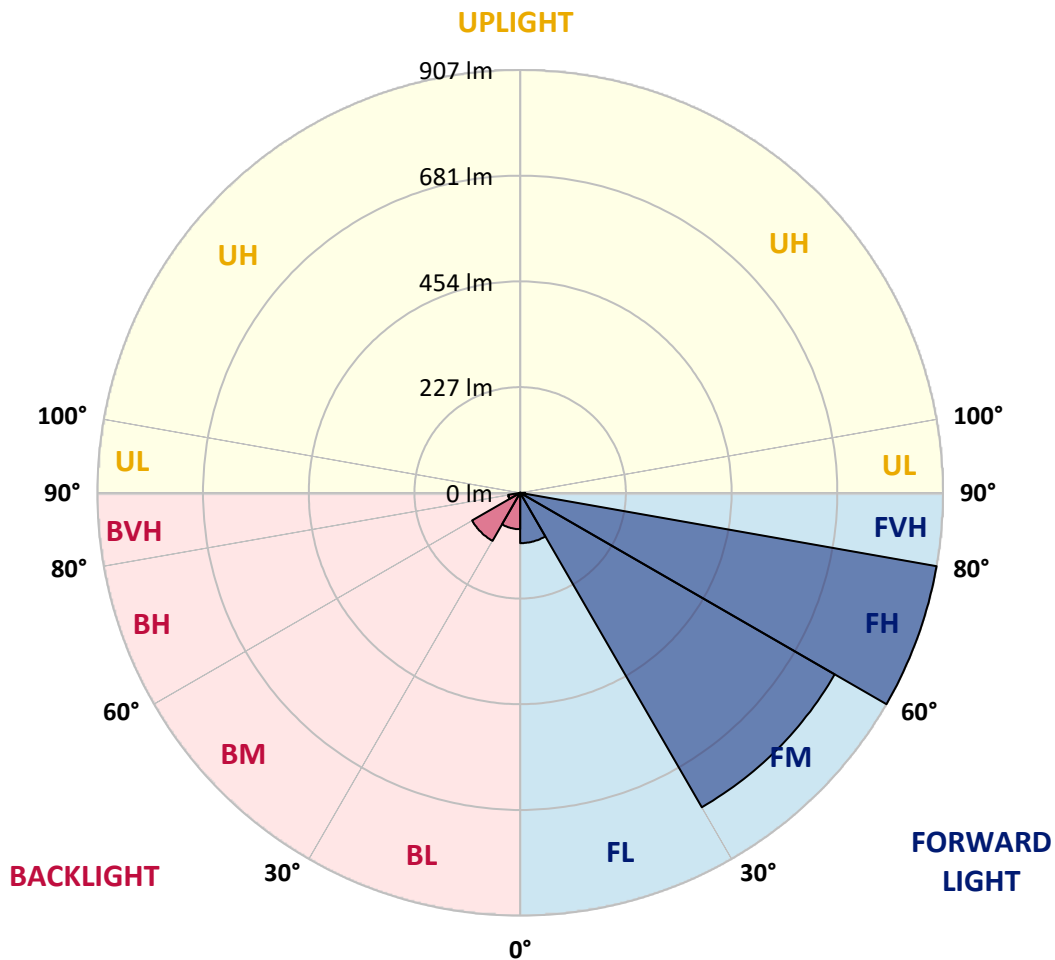
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	108.0	5.3			
FM	(30°-60°)	779.3	38.4			
FH	(60°-80°)	907.4	44.7			G1/1800
FVH	(80°-90°)	10.9	0.5			G1/100
BL	(0°-30°)	78.1	3.8	B0/110		
BM	(30°-60°)	119.1	5.9	B0/220		
BH	(60°-80°)	26.2	1.3	B0/110		G0/110
BVH	(80°-90°)	1.1	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 IV Short





REPORT NUMBER: P401085

CATALOG NUMBER: ENV-SA1B-727-U-T4FT-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	314.5	314.5	314.5	314.5	314.5	314.5	314.5	314.5	314.5	314.5	314.5
2.5°	286.4	282.8	286.0	287.6	288.9	290.5	292.9	297.4	302.3	308.0	311.3
5°	249.8	251.8	253.0	257.5	262.0	262.8	270.5	279.5	290.9	302.3	312.1
7.5°	220.0	220.0	223.7	230.6	237.9	238.8	252.2	264.0	280.3	297.8	313.7
10°	196.4	197.2	200.0	207.0	216.3	218.4	233.5	249.8	270.1	292.9	315.4
12.5°	188.6	188.2	187.8	192.7	200.5	202.5	219.2	238.8	262.8	290.5	319.4
15°	193.5	192.3	189.5	190.3	195.2	197.2	211.9	231.4	258.3	290.1	326.4
17.5°	201.3	199.6	194.3	192.7	198.0	200.0	212.3	229.4	256.7	292.1	334.5
20°	210.6	209.0	200.9	198.8	204.1	205.8	218.4	233.1	257.5	296.2	345.5
22.5°	224.1	222.1	210.2	207.8	213.1	214.7	228.2	241.6	262.4	303.5	360.6
25°	240.4	237.9	222.9	219.6	226.1	227.8	241.2	253.8	270.5	313.3	379.7
27.5°	258.3	255.5	239.6	233.1	240.4	242.8	255.5	269.3	282.4	325.5	405.0
30°	274.6	271.3	255.9	248.5	255.9	257.1	272.2	287.6	301.5	346.3	442.1
32.5°	319.8	311.7	287.6	266.5	271.3	273.8	292.1	316.6	337.4	371.2	489.7
35°	387.5	380.9	351.6	314.9	297.8	298.6	322.3	353.2	362.6	400.1	548.8
37.5°	452.7	447.0	421.3	387.5	354.9	356.1	360.2	389.9	400.9	450.2	620.9
40°	524.0	515.0	494.6	462.4	440.0	434.7	414.8	435.5	459.6	513.4	699.6
42.5°	557.0	548.4	527.2	529.3	526.8	517.4	477.9	506.8	533.7	605.0	786.3
45°	611.6	594.9	551.3	554.5	551.3	552.1	561.8	603.8	627.0	702.0	884.5
47.5°	662.1	642.9	597.3	594.0	608.3	615.6	668.2	719.1	721.2	786.3	961.5
50°	708.1	694.3	652.3	652.7	678.8	686.9	792.0	838.5	797.3	851.1	1021.8
52.5°	769.2	749.7	712.2	725.6	766.4	773.7	915.5	943.2	852.3	909.8	1069.1
55°	825.9	815.3	787.6	807.5	869.9	889.0	1041.0	1023.9	891.1	961.9	1091.9
57.5°	918.8	908.6	901.2	911.4	994.9	1019.0	1168.1	1080.9	921.2	996.6	1081.3
60°	1073.6	1063.4	1041.4	1050.8	1159.6	1171.8	1267.9	1138.8	933.0	1006.4	1039.8
62.5°	1264.7	1252.0	1216.6	1259.8	1369.0	1368.6	1371.4	1169.3	917.9	977.4	930.2
65°	1437.0	1419.5	1401.2	1489.2	1622.0	1603.7	1481.4	1173.0	870.3	837.7	719.5
67.5°	1562.5	1555.6	1565.8	1703.1	1846.1	1827.7	1588.2	1122.5	724.4	604.6	444.5
70°	1557.6	1543.4	1608.1	1827.3	1957.3	1942.2	1583.7	922.4	483.2	320.2	186.2
71°	1473.3	1457.0	1555.6	1815.1	1963.8	1949.6	1526.6	789.2	382.2	226.1	122.6
72.5°	1138.4	1187.7	1344.5	1684.3	1901.1	1882.7	1371.4	604.2	242.0	130.8	61.5
75°	481.6	508.5	798.2	1202.3	1426.0	1416.6	924.5	279.1	111.2	59.1	23.6
77.5°	123.9	122.2	244.5	515.8	830.3	845.0	426.2	95.7	57.9	42.0	13.4
80°	24.0	26.1	69.7	179.3	317.0	325.5	138.9	42.0	38.7	33.0	6.9
82.5°	2.4	2.9	12.2	55.4	106.3	102.7	30.6	15.9	23.6	22.4	3.3
85°	0.0	0.0	0.4	0.4	0.4	0.4	0.4	1.6	5.7	6.1	0.8
87.5°	0.0	0.0	0.4	0.4	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



REPORT NUMBER: P401085

CATALOG NUMBER: ENV-SA1B-727-U-T4FT-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	314.5	314.5	314.5	314.5	314.5	314.5	314.5	314.5	314.5	314.5	314.5
2.5°	313.7	317.4	321.5	324.3	327.2	327.6	331.6	330.8	332.1	332.5	332.1
5°	317.4	322.3	330.0	334.1	335.7	332.9	332.1	327.6	325.9	323.9	321.9
7.5°	321.5	327.6	336.5	338.6	332.9	322.3	313.7	302.7	292.5	286.0	286.8
10°	325.9	333.7	341.0	335.7	321.1	300.3	276.2	251.8	230.2	222.1	224.9
12.5°	331.6	341.0	344.3	329.6	301.1	259.1	215.5	178.5	156.0	142.6	141.0
15°	340.2	349.6	345.9	319.8	269.3	203.7	149.5	112.0	90.4	83.5	79.9
17.5°	350.8	359.8	345.9	302.3	224.1	145.9	90.9	68.0	61.1	59.5	59.9
20°	363.8	372.4	344.3	275.8	172.8	89.6	60.7	56.2	56.2	56.2	55.8
22.5°	381.4	385.8	341.8	240.8	119.0	60.7	53.8	53.4	53.8	53.8	53.8
25°	402.5	401.7	337.4	198.8	75.0	51.7	51.3	51.3	51.7	52.2	52.2
27.5°	430.7	422.1	329.6	148.7	53.0	48.1	48.9	49.7	50.5	51.3	51.3
30°	469.8	449.0	317.0	100.6	44.8	44.4	46.0	48.5	49.7	50.5	50.5
32.5°	511.7	476.7	295.4	64.4	41.2	40.7	42.4	46.0	49.3	50.1	50.1
35°	564.7	506.4	263.2	46.4	38.7	37.9	39.5	42.8	47.7	50.1	50.1
37.5°	620.5	538.2	216.3	39.1	36.3	35.4	36.7	39.1	44.8	49.3	49.7
40°	680.0	566.3	162.6	36.3	33.8	33.4	33.8	36.3	40.7	46.9	48.1
42.5°	739.9	590.0	113.7	33.4	31.8	31.0	31.8	33.4	37.5	42.8	43.6
45°	805.9	616.0	75.8	31.0	30.1	29.3	30.1	31.4	34.2	37.1	37.5
47.5°	854.0	625.4	52.2	28.1	27.7	28.1	28.5	29.3	31.0	31.4	31.0
50°	885.8	620.5	37.5	25.3	25.7	26.9	26.9	27.3	27.3	26.1	25.7
52.5°	909.0	602.6	28.9	21.6	24.0	25.3	25.3	24.4	23.6	22.0	21.6
55°	911.4	562.3	22.8	18.7	21.6	23.6	23.2	21.6	20.0	18.3	18.3
57.5°	880.5	501.1	18.7	15.9	18.7	20.8	20.0	18.3	16.3	15.1	15.1
60°	830.3	438.4	15.9	13.4	15.5	17.5	16.3	15.1	13.0	11.8	11.8
62.5°	737.9	376.5	13.0	11.0	12.6	13.9	13.4	12.2	10.2	9.4	9.0
65°	565.5	286.4	9.8	8.6	9.8	11.4	10.6	9.4	8.1	6.9	6.5
67.5°	339.8	172.3	7.7	6.5	7.7	9.0	8.1	6.9	5.7	4.9	4.9
70°	143.8	73.7	6.1	4.9	5.7	6.9	6.5	5.7	4.5	4.1	4.1
71°	97.8	52.6	5.3	4.5	5.3	6.5	6.1	5.3	4.5	4.1	4.1
72.5°	50.1	26.9	4.5	3.7	4.9	5.7	5.7	4.9	4.1	4.1	4.1
75°	17.9	11.4	3.7	3.3	4.1	4.1	4.5	4.5	4.5	4.5	4.1
77.5°	10.2	6.9	3.3	3.3	3.3	3.7	4.5	4.9	5.3	5.3	4.9
80°	5.7	3.7	2.0	2.4	3.3	3.7	4.5	4.9	5.7	5.7	5.3
82.5°	2.9	1.2	0.4	1.2	2.0	3.3	3.7	4.1	4.9	4.5	4.5
85°	0.4	0.0	0.0	0.4	1.2	1.6	2.4	3.3	4.1	4.1	3.7
87.5°	0.0	0.0	0.0	0.0	0.4	0.8	1.2	2.0	2.9	3.3	2.9
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)