

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: P401211

Luminaire Tested: **ENT-SA1B-827-U-T4FT-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401211
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: ENT-SA1B-827-U-T4FT-HSS
Description: ENTRI LED LUMINAIRE
(1) 80 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: 1785 lumens
Efficiency: N/A
Efficacy: 70.3 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

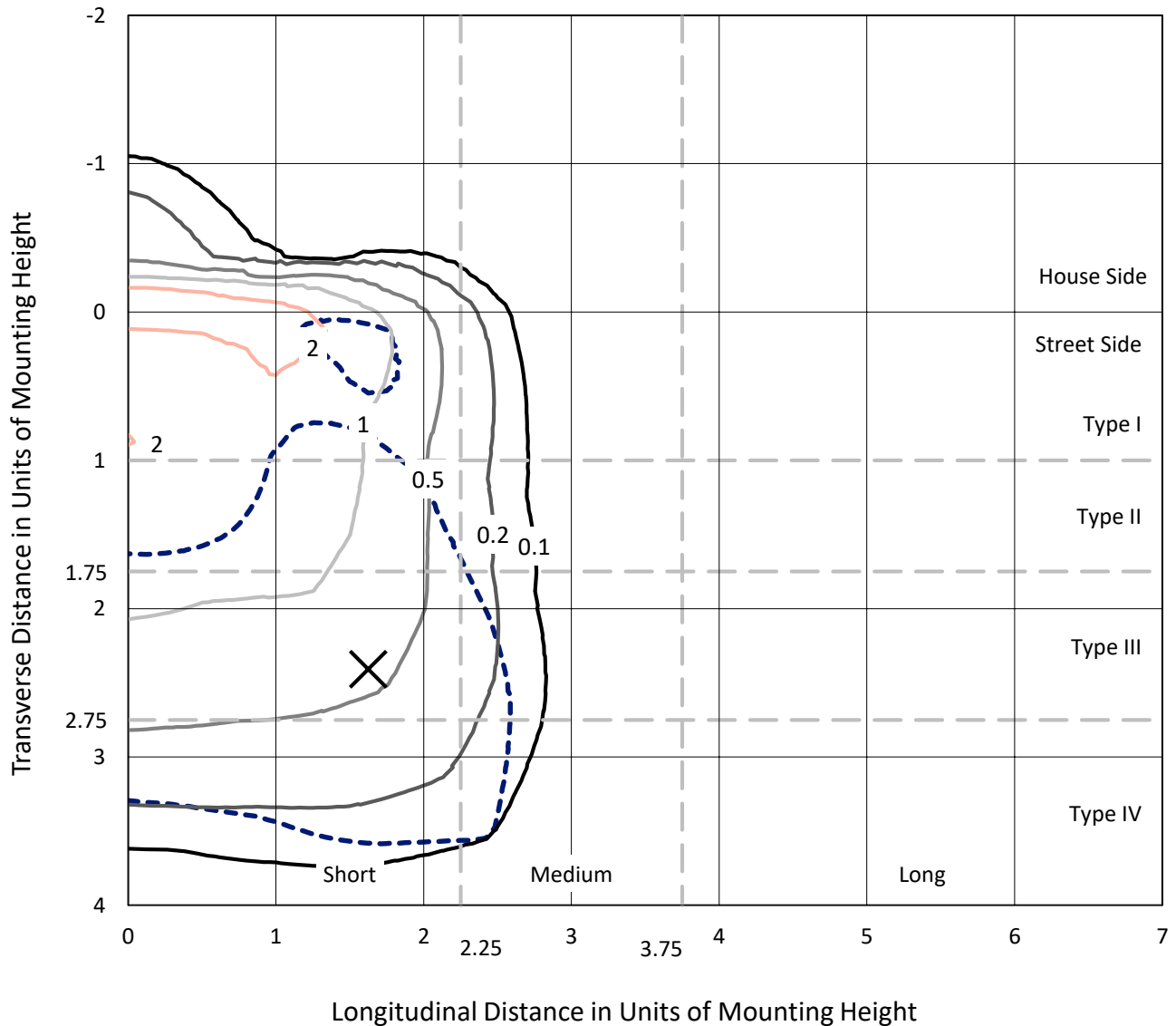
Input Watts (W): 25.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P401211
 CATALOG NUMBER: ENT-SA1B-827-U-T4FT-HSS

Iso-Footcandle Lines of Horizontal Illumination

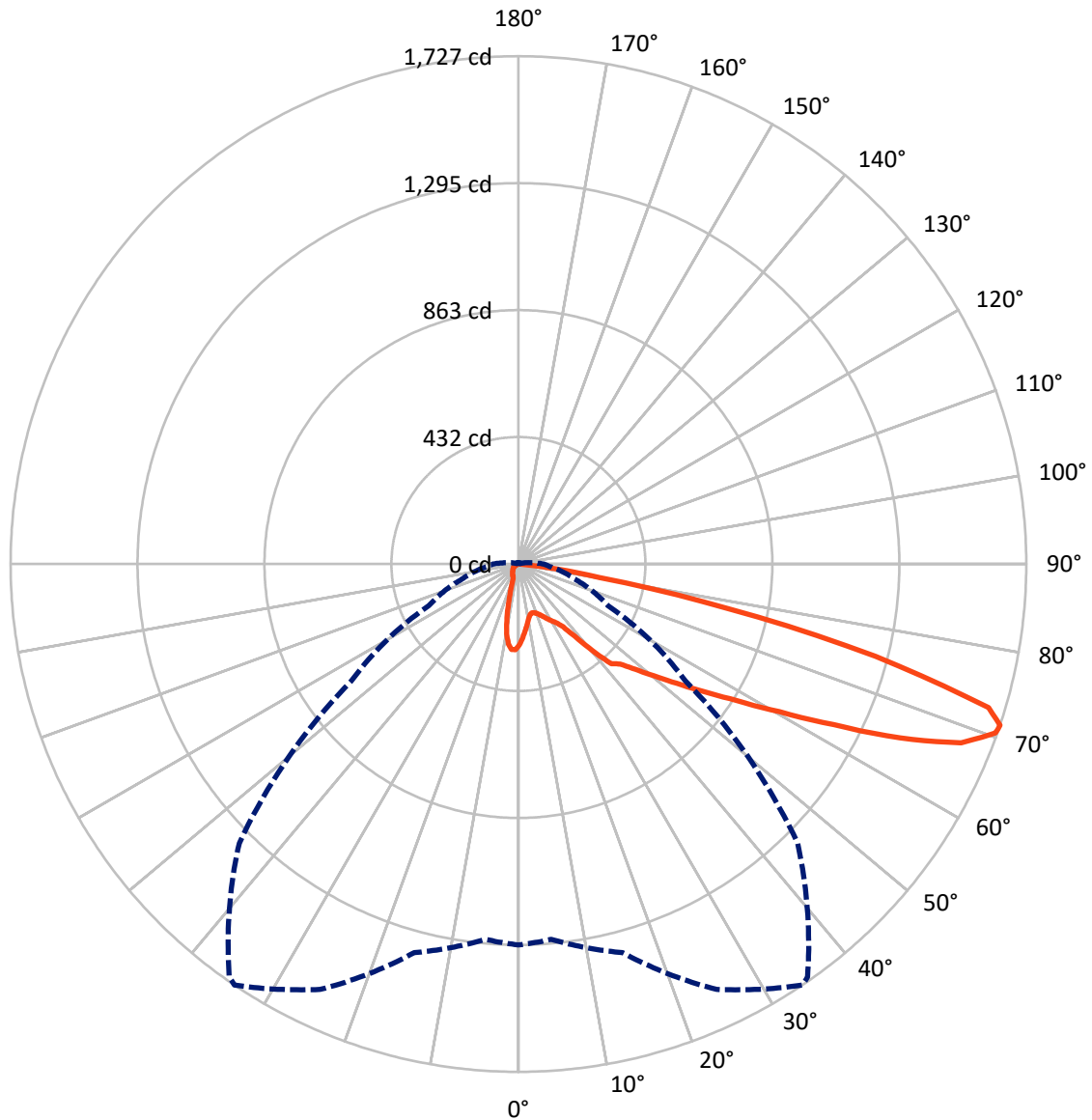
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.8 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P401211
CATALOG NUMBER: ENT-SA1B-827-U-T4FT-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P401211

CATALOG NUMBER: ENT-SA1B-827-U-T4FT-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	197.4	0.0	197.4
	% Fixture	11.1	0.0	11.1
Street Side	Lumens	1587.6	0.0	1587.6
	% Fixture	88.9	0.0	88.9
Total	Lumens	1785.0	0.0	1785.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.4	1.4
10°-20°	55.9	3.1
20°-30°	83.4	4.7
30°-40°	139.3	7.8
40°-50°	251.5	14.1
50°-60°	399.1	22.4
60°-70°	536.3	30.0
70°-80°	284.6	15.9
80°-90°	10.5	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°	1785.0	100.0
0°-180°	1785.0	100.0



REPORT NUMBER: P401211

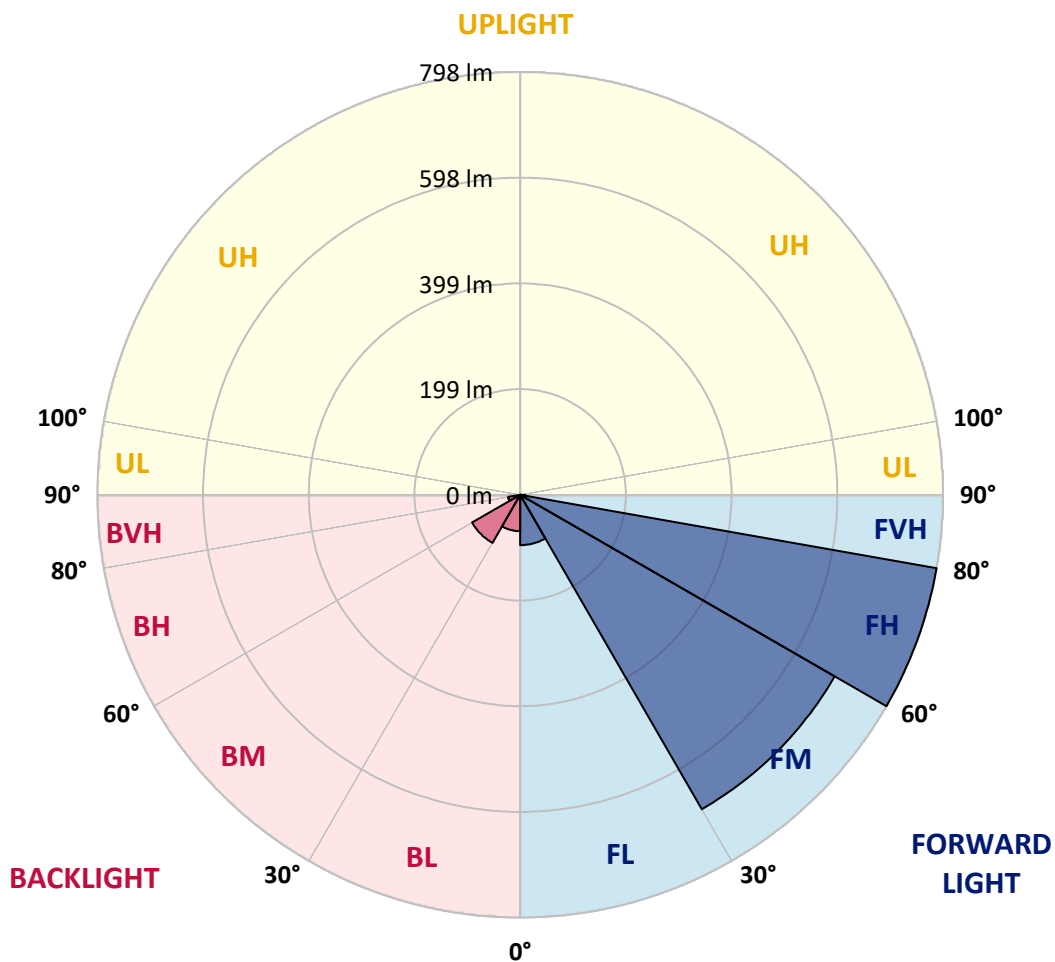
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	95.0	5.3			
FM (30°-60°)	685.2	38.4			
FH (60°-80°)	797.9	44.7			G1/1800
FVH (80°-90°)	9.6	0.5			G0/10
BL (0°-30°)	68.6	3.8	B0/110		
BM (30°-60°)	104.7	5.9	B0/220		
BH (60°-80°)	23.0	1.3	B0/110		G0/110
BVH (80°-90°)	1.0	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 IV Short





REPORT NUMBER: P401211

CATALOG NUMBER: ENT-SA1B-827-U-T4FT-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	276.6	276.6	276.6	276.6	276.6	276.6	276.6	276.6	276.6	276.6	276.6
2.5°	251.9	248.6	251.5	252.9	254.0	255.4	257.6	261.5	265.8	270.8	273.7
5°	219.6	221.4	222.5	226.4	230.4	231.1	237.9	245.8	255.8	265.8	274.4
7.5°	193.5	193.5	196.7	202.8	209.2	209.9	221.8	232.2	246.5	261.9	275.9
10°	172.7	173.4	175.9	182.0	190.2	192.0	205.3	219.6	237.5	257.6	277.3
12.5°	165.9	165.5	165.2	169.5	176.3	178.1	192.7	209.9	231.1	255.4	280.9
15°	170.2	169.1	166.6	167.3	171.6	173.4	186.3	203.5	227.1	255.1	287.0
17.5°	177.0	175.5	170.9	169.5	174.1	175.9	186.7	201.7	225.7	256.9	294.1
20°	185.2	183.8	176.6	174.8	179.5	180.9	192.0	204.9	226.4	260.5	303.8
22.5°	197.0	195.3	184.9	182.7	187.4	188.8	200.6	212.4	230.7	266.9	317.1
25°	211.4	209.2	196.0	193.1	198.8	200.3	212.1	223.2	237.9	275.5	333.9
27.5°	227.1	224.6	210.7	204.9	211.4	213.5	224.6	236.8	248.3	286.2	356.1
30°	241.5	238.6	225.0	218.5	225.0	226.1	239.3	252.9	265.1	304.5	388.7
32.5°	281.2	274.1	252.9	234.3	238.6	240.8	256.9	278.4	296.6	326.4	430.6
35°	340.7	335.0	309.2	276.9	261.9	262.6	283.4	310.6	318.9	351.8	482.6
37.5°	398.0	393.0	370.4	340.7	312.0	313.1	316.7	342.9	352.5	395.9	546.0
40°	460.7	452.8	434.9	406.6	386.9	382.3	364.7	383.0	404.1	451.4	615.1
42.5°	489.7	482.2	463.6	465.4	463.2	455.0	420.2	445.7	469.3	532.0	691.4
45°	537.7	523.1	484.7	487.6	484.7	485.4	494.0	530.9	551.4	617.3	777.8
47.5°	582.2	565.3	525.2	522.3	534.9	541.3	587.5	632.3	634.1	691.4	845.5
50°	622.7	610.5	573.6	573.9	596.9	604.0	696.5	737.3	701.1	748.4	898.5
52.5°	676.4	659.2	626.2	638.1	673.9	680.3	805.0	829.4	749.5	800.0	940.1
55°	726.2	716.9	692.5	710.1	764.9	781.7	915.4	900.3	783.5	845.9	960.1
57.5°	807.9	798.9	792.5	801.4	874.9	896.0	1027.1	950.5	810.0	876.3	950.8
60°	944.0	935.1	915.7	924.0	1019.6	1030.4	1114.9	1001.3	820.4	884.9	914.3
62.5°	1112.0	1100.9	1069.8	1107.7	1203.8	1203.4	1205.9	1028.2	807.2	859.5	817.9
65°	1263.6	1248.2	1232.1	1309.4	1426.2	1410.1	1302.6	1031.4	765.2	736.6	632.7
67.5°	1373.9	1367.8	1376.8	1497.5	1623.3	1607.2	1396.5	987.0	637.0	531.7	390.9
70°	1369.6	1357.1	1414.0	1606.8	1721.1	1707.8	1392.6	811.1	424.9	281.6	163.7
71°	1295.5	1281.1	1367.8	1596.0	1726.8	1714.3	1342.4	693.9	336.0	198.8	107.8
72.5°	1001.0	1044.3	1182.3	1481.0	1671.6	1655.5	1205.9	531.3	212.8	115.0	54.1
75°	423.5	447.1	701.8	1057.2	1253.9	1245.7	812.9	245.4	97.8	51.9	20.8
77.5°	108.9	107.5	215.0	453.6	730.1	743.0	374.7	84.2	50.9	36.9	11.8
80°	21.1	22.9	61.3	157.6	278.7	286.2	122.2	36.9	34.0	29.0	6.1
82.5°	2.1	2.5	10.7	48.7	93.5	90.3	26.9	14.0	20.8	19.7	2.9
85°	0.0	0.0	0.4	0.4	0.4	0.4	0.4	1.4	5.0	5.4	0.7
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: P401211

CATALOG NUMBER: ENT-SA1B-827-U-T4FT-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	276.6	276.6	276.6	276.6	276.6	276.6	276.6	276.6	276.6	276.6	276.6
2.5°	275.9	279.1	282.7	285.2	287.7	288.0	291.6	290.9	292.0	292.3	292.0
5°	279.1	283.4	290.2	293.8	295.2	292.7	292.0	288.0	286.6	284.8	283.0
7.5°	282.7	288.0	295.9	297.7	292.7	283.4	275.9	266.2	257.2	251.5	252.2
10°	286.6	293.4	299.9	295.2	282.3	264.0	242.9	221.4	202.4	195.3	197.8
12.5°	291.6	299.9	302.7	289.8	264.8	227.9	189.5	156.9	137.2	125.4	124.0
15°	299.1	307.4	304.2	281.2	236.8	179.1	131.5	98.5	79.5	73.4	70.2
17.5°	308.5	316.3	304.2	265.8	197.0	128.3	79.9	59.8	53.7	52.3	52.7
20°	319.9	327.4	302.7	242.5	151.9	78.8	53.4	49.4	49.4	49.4	49.1
22.5°	335.3	339.3	300.6	211.7	104.6	53.4	47.3	46.9	47.3	47.3	47.3
25°	354.0	353.2	296.6	174.8	65.9	45.5	45.1	45.1	45.5	45.9	45.9
27.5°	378.7	371.2	289.8	130.8	46.6	42.3	43.0	43.7	44.4	45.1	45.1
30°	413.1	394.8	278.7	88.5	39.4	39.1	40.5	42.6	43.7	44.4	44.4
32.5°	450.0	419.2	259.7	56.6	36.2	35.8	37.3	40.5	43.3	44.1	44.1
35°	496.5	445.3	231.4	40.8	34.0	33.3	34.8	37.6	41.9	44.1	44.1
37.5°	545.6	473.3	190.2	34.4	31.9	31.2	32.2	34.4	39.4	43.3	43.7
40°	597.9	498.0	142.9	31.9	29.7	29.4	29.7	31.9	35.8	41.2	42.3
42.5°	650.6	518.8	100.0	29.4	27.9	27.2	27.9	29.4	33.0	37.6	38.3
45°	708.6	541.7	66.6	27.2	26.5	25.8	26.5	27.6	30.1	32.6	33.0
47.5°	750.9	549.9	45.9	24.7	24.4	24.7	25.1	25.8	27.2	27.6	27.2
50°	778.9	545.6	33.0	22.2	22.6	23.6	23.6	24.0	24.0	22.9	22.6
52.5°	799.3	529.9	25.4	19.0	21.1	22.2	22.2	21.5	20.8	19.3	19.0
55°	801.4	494.4	20.1	16.5	19.0	20.8	20.4	19.0	17.6	16.1	16.1
57.5°	774.2	440.7	16.5	14.0	16.5	18.3	17.6	16.1	14.3	13.3	13.3
60°	730.1	385.5	14.0	11.8	13.6	15.4	14.3	13.3	11.5	10.4	10.4
62.5°	648.8	331.0	11.5	9.7	11.1	12.2	11.8	10.7	9.0	8.2	7.9
65°	497.3	251.9	8.6	7.5	8.6	10.0	9.3	8.2	7.2	6.1	5.7
67.5°	298.8	151.5	6.8	5.7	6.8	7.9	7.2	6.1	5.0	4.3	4.3
70°	126.5	64.8	5.4	4.3	5.0	6.1	5.7	5.0	3.9	3.6	3.6
71°	86.0	46.2	4.7	3.9	4.7	5.7	5.4	4.7	3.9	3.6	3.6
72.5°	44.1	23.6	3.9	3.2	4.3	5.0	5.0	4.3	3.6	3.6	3.6
75°	15.8	10.0	3.2	2.9	3.6	3.6	3.9	3.9	3.9	3.9	3.6
77.5°	9.0	6.1	2.9	2.9	2.9	3.2	3.9	4.3	4.7	4.7	4.3
80°	5.0	3.2	1.8	2.1	2.9	3.2	3.9	4.3	5.0	5.0	4.7
82.5°	2.5	1.1	0.4	1.1	1.8	2.9	3.2	3.6	4.3	3.9	3.9
85°	0.4	0.0	0.0	0.4	1.1	1.4	2.1	2.9	3.6	3.6	3.2
87.5°	0.0	0.0	0.0	0.0	0.4	0.7	1.1	1.8	2.5	2.9	2.5
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)