

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: P401227

Luminaire Tested: **ENT-SA1B-830-U-T3-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401227
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-14)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1B-830-U-T3-HSS
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 3000K, 450mA LIGHTSQUARE WITH 16 LEDS AND TYPE III OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2093 lumens
Efficiency: N/A
Efficacy: 82.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Full 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

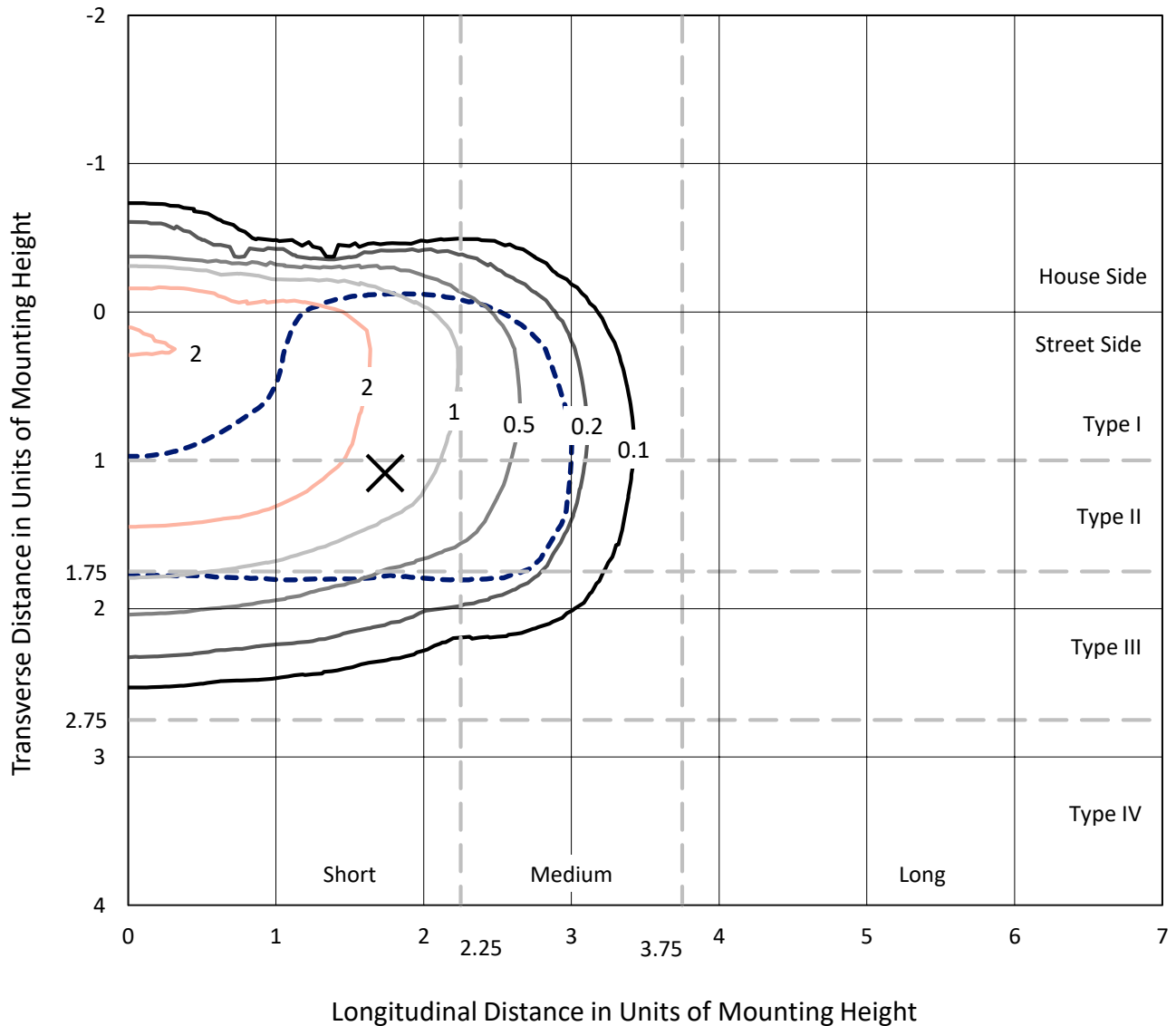


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

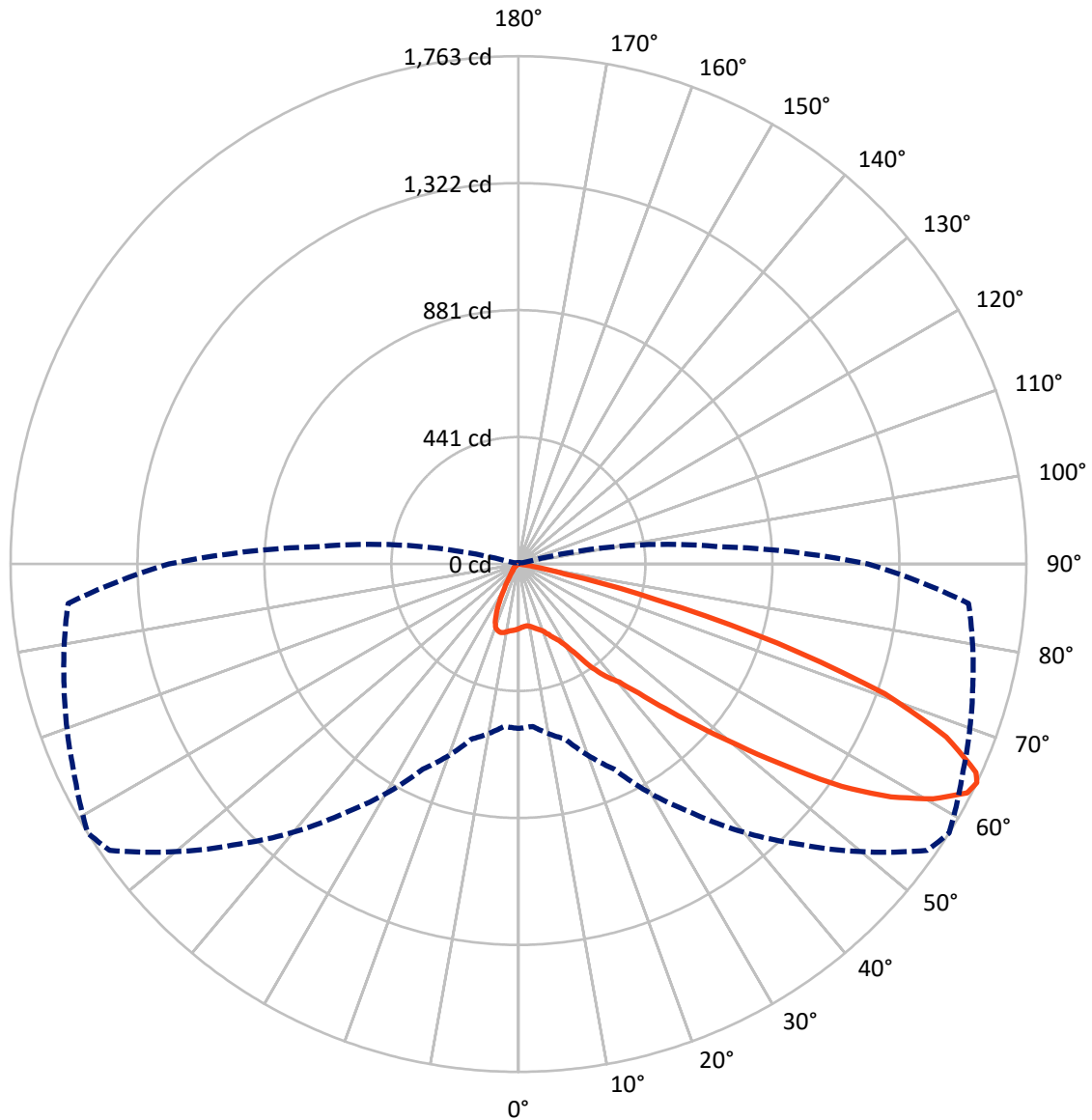


Based on 10 foot mounting height. Maximum calculated value = 3.3 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 64-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	249.5	0.0	249.5
	% Fixture	11.9	0.0	11.9
Street Side	Lumens	1843.5	0.0	1843.5
	% Fixture	88.1	0.0	88.1
Total	Lumens	2093.0	0.0	2093.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.2	1.0
10°-20°	61.8	3.0
20°-30°	111.0	5.3
30°-40°	194.5	9.3
40°-50°	355.6	17.0
50°-60°	608.4	29.1
60°-70°	590.2	28.2
70°-80°	146.2	7.0
80°-90°	4.2	0.2
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°	2093.0	100.0
0°-180°	2093.0	100.0

Coefficient of Utilization



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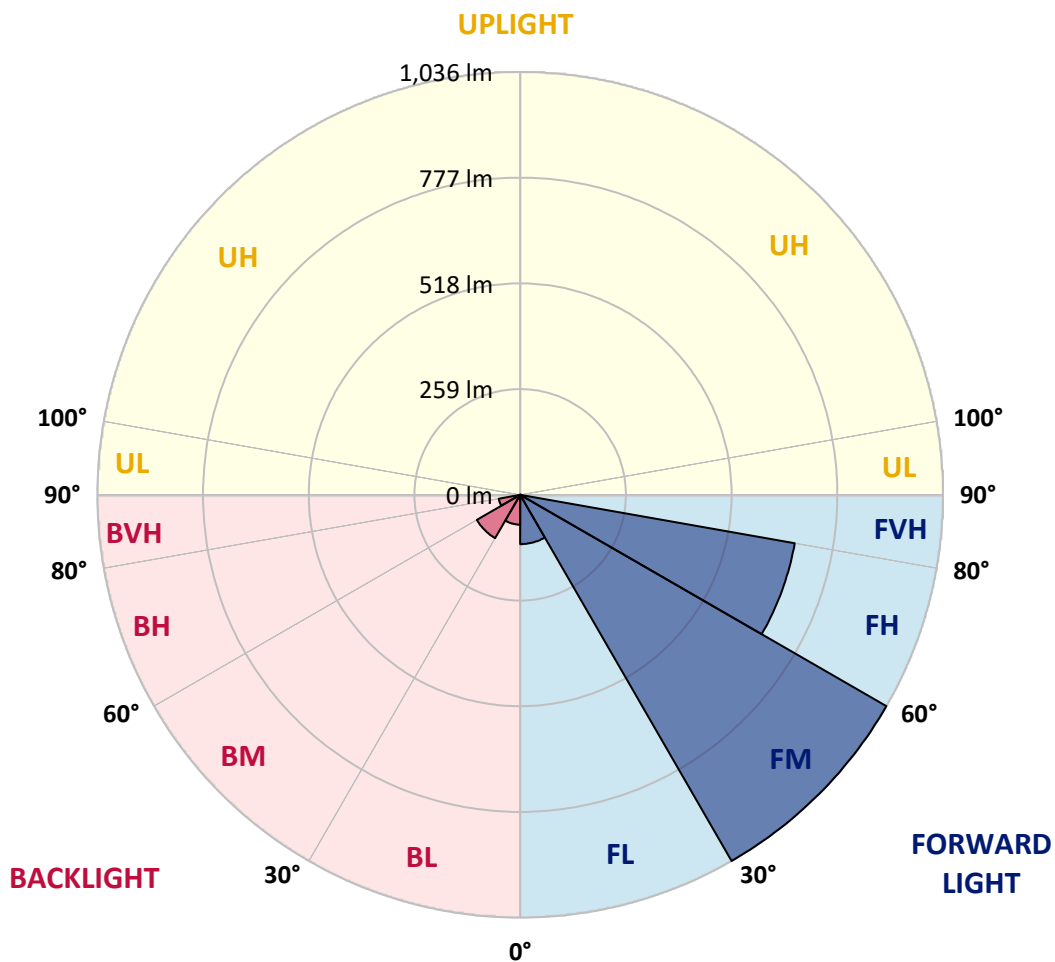
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	120.9	5.8			
FM (30°-60°)	1036.0	49.5			
FH (60°-80°)	683.1	32.6			G1/1800
FVH (80°-90°)	3.5	0.2			G0/10
BL (0°-30°)	73.1	3.5	B0/110		
BM (30°-60°)	122.6	5.9	B0/220		
BH (60°-80°)	53.3	2.5	B0/110		G0/110
BVH (80°-90°)	0.6	0.0			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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	224.2	224.2	224.2	224.2	224.2	224.2	224.2	224.2	224.2	224.2	224.2
2.5°	214.9	214.9	215.7	216.1	217.2	218.4	219.9	220.3	221.1	223.0	223.8
5°	203.3	203.7	204.4	206.4	209.1	212.2	216.1	217.2	220.3	224.2	226.9
7.5°	198.6	199.0	200.2	202.5	206.0	210.6	215.3	216.8	221.1	227.3	231.2
10°	197.9	197.9	199.4	202.9	207.2	213.0	218.0	219.9	225.7	233.1	239.3
12.5°	197.9	197.9	199.8	204.1	209.1	216.5	223.4	226.1	232.7	242.0	249.8
15°	201.3	202.1	203.3	206.0	211.8	219.9	229.6	232.7	240.8	252.1	261.8
17.5°	226.1	225.4	221.5	218.0	216.8	223.8	235.4	239.7	251.7	266.0	276.5
20°	274.1	273.8	266.8	249.8	234.6	230.8	244.3	249.4	266.8	285.8	293.5
22.5°	332.2	334.2	323.3	300.5	269.5	249.8	257.5	264.5	286.9	309.8	314.4
25°	389.9	392.2	382.2	353.5	315.6	281.1	275.7	281.9	307.4	330.3	328.4
27.5°	458.1	456.1	446.1	413.5	369.4	323.3	300.1	301.2	321.0	346.6	340.4
30°	508.0	505.3	495.6	473.6	432.1	379.5	334.9	331.5	337.3	365.5	358.9
32.5°	553.7	555.6	548.3	518.9	479.8	437.2	387.2	377.9	375.6	399.6	388.8
35°	599.0	598.6	595.9	570.0	531.6	491.4	449.6	443.0	442.2	465.4	436.0
37.5°	653.2	650.5	645.5	619.1	588.6	550.2	505.7	495.2	493.3	498.0	463.5
40°	711.3	714.8	706.7	679.2	645.9	617.2	554.9	539.0	525.8	539.4	517.3
42.5°	797.7	800.4	786.0	767.1	724.1	697.4	634.3	612.6	606.4	626.9	602.1
45°	906.1	901.0	891.4	878.2	842.6	801.9	736.1	715.6	709.0	744.2	703.6
47.5°	990.5	989.7	990.1	987.4	982.0	933.2	855.0	841.0	834.4	885.2	840.2
50°	1043.9	1047.0	1060.2	1093.9	1118.7	1098.1	1006.4	989.3	984.3	1037.0	976.2
52.5°	1084.2	1091.5	1113.6	1180.2	1259.6	1266.6	1190.7	1166.7	1155.0	1169.8	1085.4
55°	1104.7	1108.2	1141.9	1240.2	1364.5	1414.5	1382.7	1362.6	1315.7	1287.9	1213.5
57.5°	1056.7	1051.3	1109.4	1234.4	1418.7	1533.7	1547.3	1524.4	1449.3	1427.6	1369.2
60°	930.9	928.5	994.0	1144.2	1371.5	1561.6	1669.3	1654.9	1586.0	1534.5	1479.5
62.5°	710.1	714.0	783.3	936.3	1203.1	1481.5	1737.0	1748.6	1675.5	1598.8	1561.2
64°	570.4	565.7	629.2	784.9	1055.5	1374.6	1732.0	1762.6	1702.6	1632.5	1568.6
65°	479.0	468.9	529.7	670.6	930.9	1297.2	1696.4	1745.5	1704.5	1640.6	1541.9
67.5°	252.1	257.5	283.4	407.3	628.4	980.8	1527.5	1601.9	1618.5	1529.5	1343.6
70°	113.1	113.8	130.5	207.9	347.7	636.2	1228.6	1349.0	1358.3	1256.5	973.4
72.5°	37.6	37.9	57.7	83.3	146.0	294.7	829.8	939.4	959.5	814.7	528.2
75°	23.2	24.0	30.6	44.9	67.8	103.0	420.5	494.9	499.1	361.3	192.1
77.5°	14.7	15.5	18.6	26.7	37.2	39.1	137.8	166.9	189.0	130.1	59.6
80°	9.3	9.3	12.0	16.3	19.4	16.7	37.6	49.6	59.6	43.8	20.1
82.5°	3.5	3.5	6.2	8.9	8.1	5.8	10.1	13.2	22.8	21.7	9.7
85°	0.0	0.0	0.4	0.8	0.4	0.8	1.9	2.7	4.3	6.2	3.1
87.5°	0.0	0.0	0.0	0.0	0.4	0.4	0.8	0.8	0.8	0.8	0.8
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°	224.2	224.2	224.2	224.2	224.2	224.2	224.2	224.2	224.2	224.2	224.2
2.5°	225.0	225.7	227.3	227.7	228.1	226.9	228.1	226.9	227.7	227.7	227.7
5°	228.5	229.6	230.8	231.2	230.8	228.1	228.8	226.9	226.5	226.5	226.5
7.5°	233.1	234.3	236.2	235.0	232.7	228.8	228.5	225.7	224.6	224.6	225.0
10°	241.6	242.8	243.6	241.2	236.6	230.8	226.5	220.7	218.0	216.8	216.8
12.5°	252.5	253.6	253.2	249.4	240.8	228.8	216.8	205.6	197.5	194.4	191.3
15°	264.1	265.6	264.9	256.7	240.5	219.2	195.9	169.6	153.3	142.9	140.9
17.5°	277.6	279.2	275.3	260.6	234.6	198.6	154.5	118.9	95.3	86.3	86.0
20°	294.3	293.5	284.2	261.0	224.2	160.7	103.4	74.3	64.3	62.0	61.6
22.5°	313.3	309.8	292.7	258.7	195.5	109.2	66.6	58.9	57.7	56.9	56.9
25°	324.1	317.9	295.8	252.1	150.6	69.7	56.5	55.0	53.4	51.9	51.5
27.5°	332.6	323.3	297.0	230.4	100.3	53.4	51.1	49.6	47.2	44.9	44.5
30°	348.1	334.2	298.9	192.4	61.6	45.7	44.5	41.8	38.3	36.0	35.2
32.5°	376.0	355.8	306.7	144.0	44.9	40.3	37.2	33.7	29.8	27.5	27.5
35°	405.8	376.4	310.5	94.9	39.1	35.2	30.6	26.3	22.8	20.9	20.5
37.5°	433.3	405.8	309.4	58.1	34.8	30.2	25.2	20.9	17.8	16.3	16.3
40°	489.4	457.3	293.5	39.9	30.6	25.6	20.5	16.3	14.3	13.2	13.2
42.5°	569.6	513.8	258.3	34.1	26.7	21.3	16.3	13.6	12.0	10.8	10.8
45°	659.4	576.2	206.0	30.6	23.2	17.8	13.6	11.2	9.7	9.3	9.3
47.5°	777.1	651.7	151.4	27.5	20.1	15.1	11.2	9.3	8.5	8.1	8.1
50°	880.1	712.9	103.4	24.0	17.8	12.8	9.7	8.5	7.7	7.4	7.4
52.5°	973.8	755.4	68.1	20.9	15.9	10.5	8.9	7.7	7.4	7.0	7.0
55°	1084.2	788.0	46.1	18.2	13.9	9.7	8.5	7.7	7.0	7.0	6.6
57.5°	1177.9	807.3	32.9	15.5	12.4	8.9	8.1	7.4	6.6	6.2	6.2
60°	1232.5	784.5	24.0	13.6	10.8	8.1	7.4	6.6	6.2	5.8	5.8
62.5°	1247.6	740.3	18.6	11.6	9.3	7.4	6.6	5.8	5.4	5.0	5.0
64°	1212.7	693.1	15.9	10.1	8.1	6.6	6.2	5.4	4.6	3.9	3.9
65°	1163.6	649.4	14.3	9.3	7.4	6.2	5.8	5.0	3.9	3.1	3.1
67.5°	969.6	517.7	11.6	7.7	5.8	5.4	4.6	3.9	2.7	1.9	1.9
70°	688.5	362.0	8.9	6.2	5.0	5.0	4.3	3.1	1.5	0.8	0.8
72.5°	364.4	188.2	7.4	5.0	3.9	3.9	3.5	1.9	1.2	0.8	0.4
75°	127.4	62.0	6.2	4.3	3.5	2.7	2.3	1.5	1.2	0.8	0.4
77.5°	38.7	20.5	5.4	4.3	3.1	2.3	2.7	2.3	2.3	1.5	1.2
80°	12.4	7.4	3.1	2.7	3.1	3.1	2.7	2.3	2.7	1.9	1.5
82.5°	4.6	2.7	1.2	1.5	1.5	1.9	1.9	1.5	1.2	0.4	0.0
85°	1.5	1.2	0.8	1.2	1.2	1.2	0.8	0.8	0.4	0.0	0.0
87.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.4	0.4	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

(END OF REPORT)