

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: P401220

Luminaire Tested: **ENT-SA1B-830-U-SL4**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401220
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-5)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1B-830-U-SL4
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 3000K, 450mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2583 lumens
Efficiency: N/A
Efficacy: 101.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G1

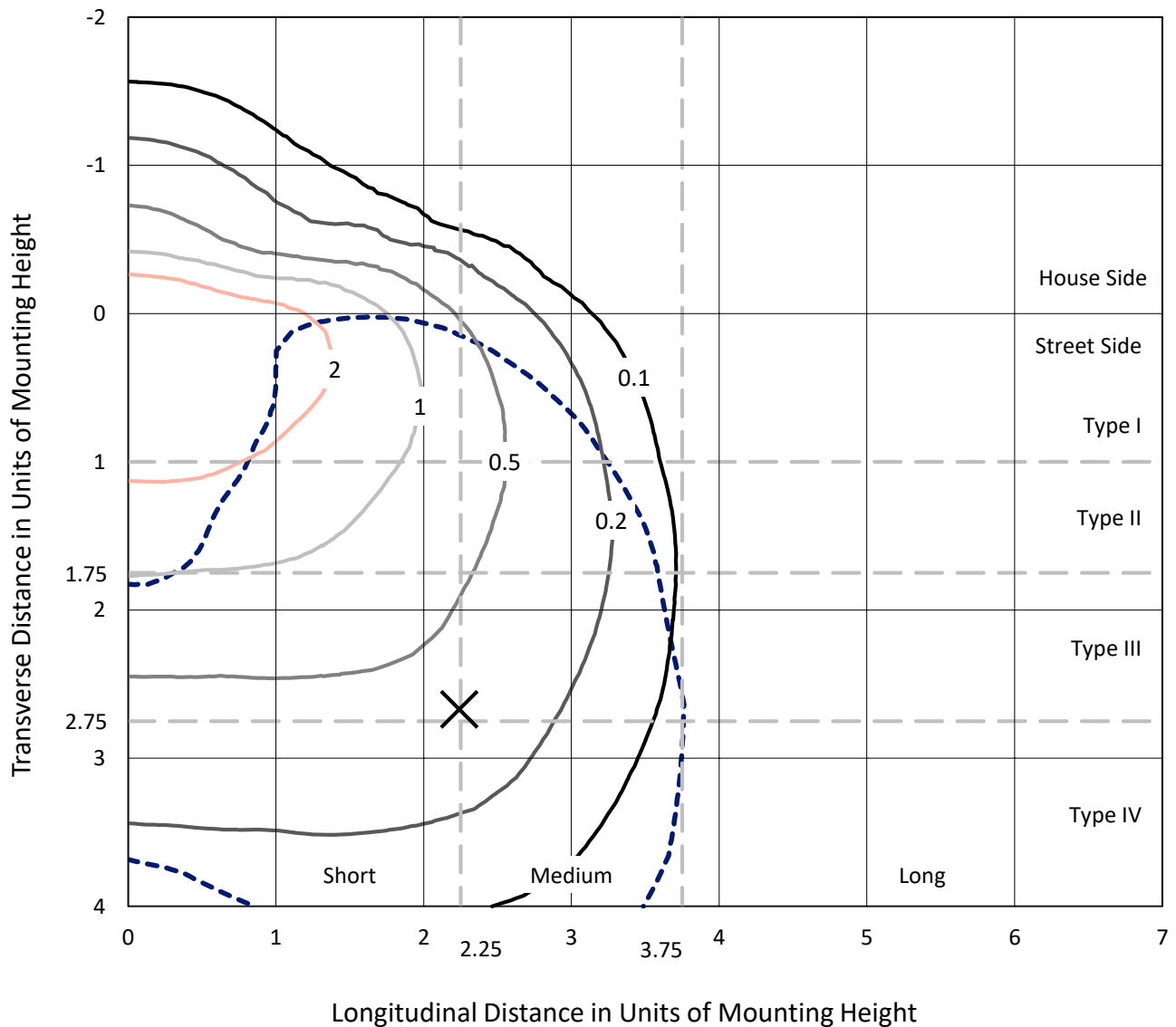
Input Watts (W): 25.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P401220
 CATALOG NUMBER: ENT-SA1B-830-U-SL4

Iso-Footcandle Lines of Horizontal Illumination

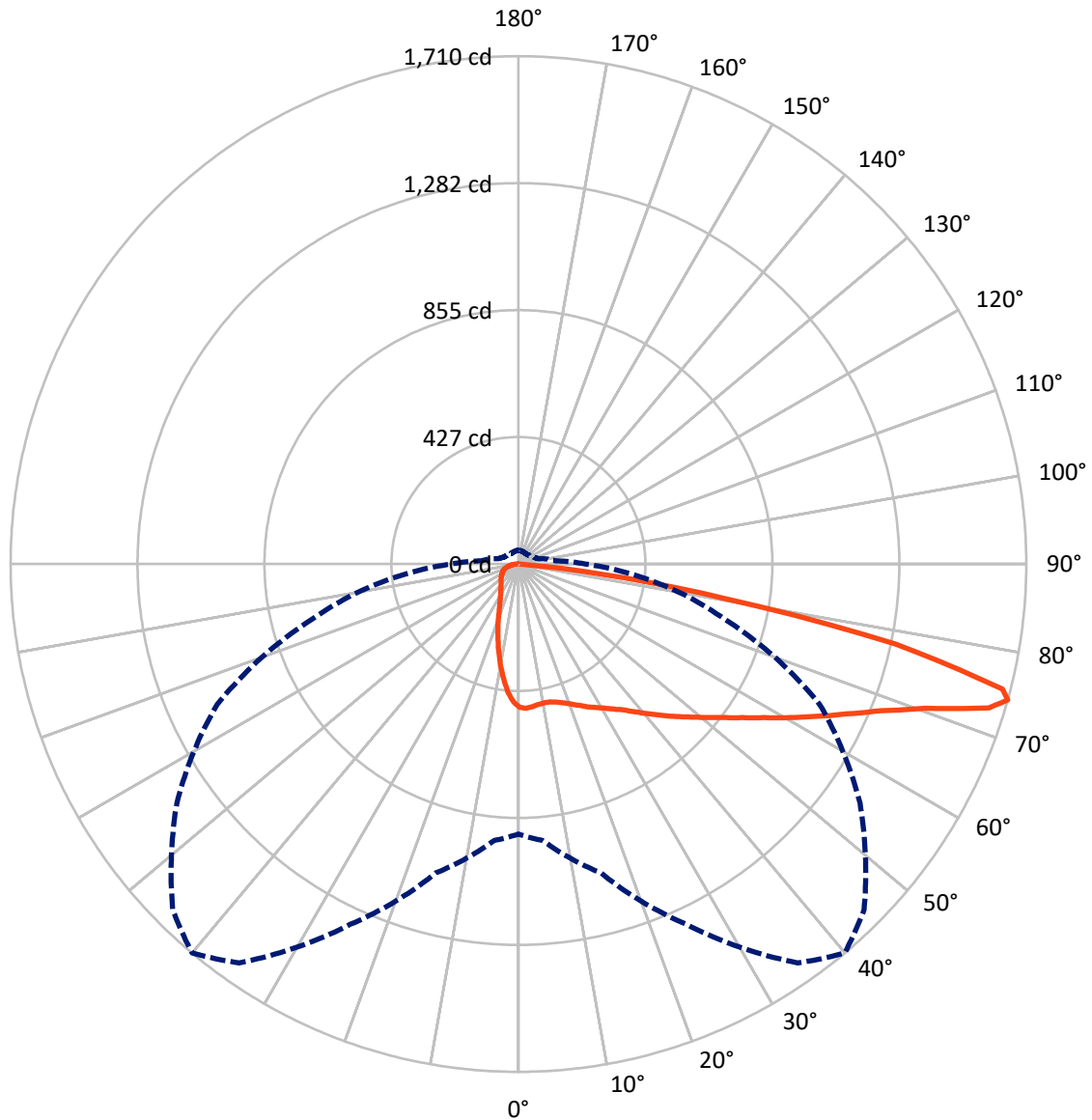
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.8 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P401220
CATALOG NUMBER: ENT-SA1B-830-U-SL4

Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 74-Deg Vertical

REPORT NUMBER: P401220

CATALOG NUMBER: ENT-SA1B-830-U-SL4

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	402.7	0.0	402.7
	% Fixture	15.6	0.0	15.6
Street Side	Lumens	2180.3	0.0	2180.3
	% Fixture	84.4	0.0	84.4
Total	Lumens	2583.0	0.0	2583.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.6	1.6
10°-20°	109.6	4.2
20°-30°	168.1	6.5
30°-40°	242.8	9.4
40°-50°	349.3	13.5
50°-60°	482.3	18.7
60°-70°	608.1	23.5
70°-80°	527.3	20.4
80°-90°	52.8	2.0
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°	2583.0	100.0
0°-180°	2583.0	100.0



REPORT NUMBER: P401220

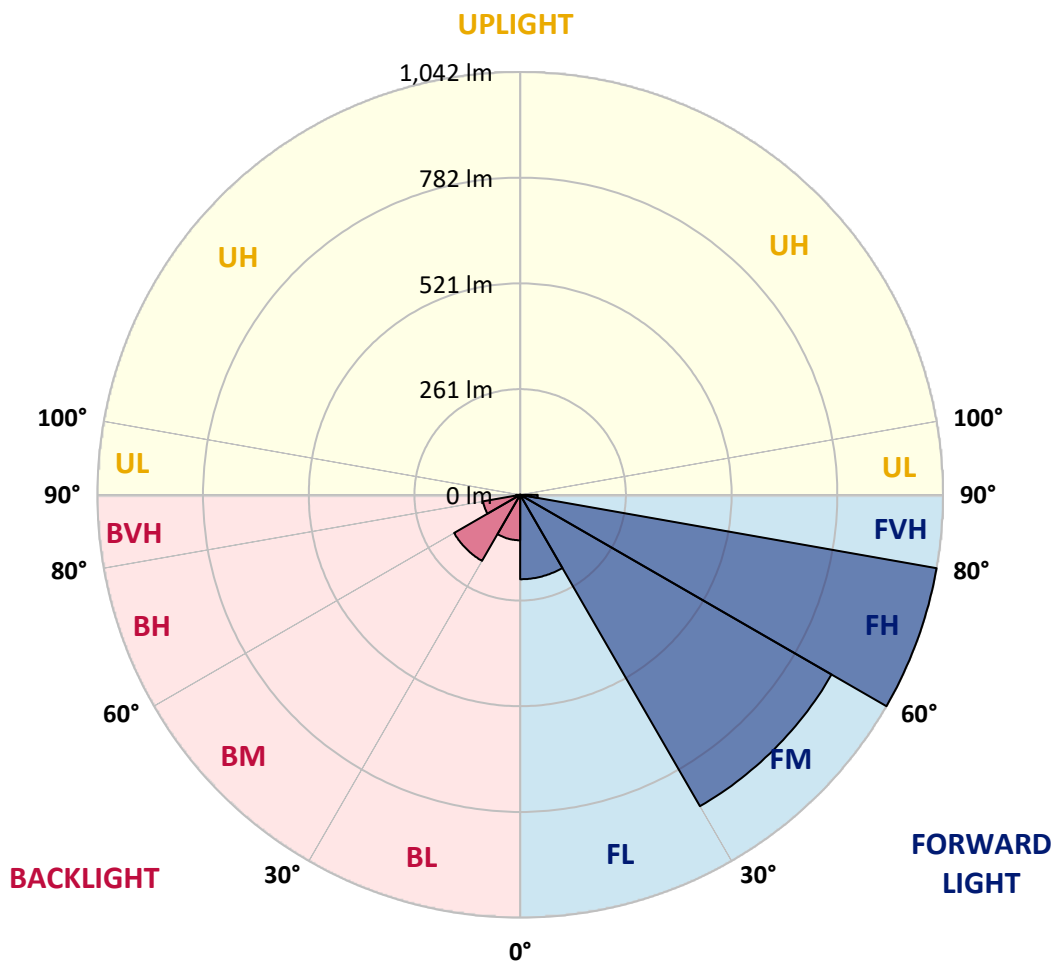
CATALOG NUMBER: ENT-SA1B-830-U-SL4

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	208.2	8.1			
FM	(30°-60°)	886.4	34.3			
FH	(60°-80°)	1042.5	40.4			G1/1800
FVH	(80°-90°)	43.2	1.7			G1/100
BL	(0°-30°)	112.1	4.3	B1/500		
BM	(30°-60°)	188.1	7.3	B0/220		
BH	(60°-80°)	93.0	3.6	B0/110		G0/110
BVH	(80°-90°)	9.6	0.4			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type IV Short





REPORT NUMBER: P401220

CATALOG NUMBER: ENT-SA1B-830-U-SL4

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	482.2	482.2	482.2	482.2	482.2	482.2	482.2	482.2	482.2	482.2	482.2
2.5°	488.3	488.0	489.1	488.3	487.2	486.4	486.0	483.7	482.9	480.6	477.5
5°	486.4	486.4	486.4	485.6	483.3	482.5	481.8	478.3	476.0	472.1	466.3
7.5°	479.8	481.0	480.6	480.2	478.3	477.5	476.3	472.1	469.0	463.2	455.8
10°	473.6	473.6	474.0	475.6	474.8	475.2	474.8	470.1	465.9	458.5	449.2
12.5°	464.7	466.3	468.6	472.9	474.8	476.3	476.3	472.9	468.2	459.3	448.5
15°	459.3	461.2	467.0	474.8	479.4	482.2	482.9	478.7	472.9	463.9	451.9
17.5°	457.0	459.3	470.1	481.0	489.1	491.4	491.8	487.2	481.0	470.1	456.2
20°	459.3	462.0	476.3	491.1	500.7	502.7	503.5	496.9	489.1	478.7	460.5
22.5°	468.2	472.1	488.0	503.8	513.9	516.6	515.8	506.5	498.8	487.6	465.9
25°	487.6	489.9	504.2	521.3	529.0	532.1	530.2	519.7	509.6	498.4	473.6
27.5°	510.0	513.1	528.2	541.0	546.0	546.8	544.9	534.0	522.8	513.5	485.6
30°	537.1	539.9	552.2	561.9	562.3	562.7	561.5	549.1	539.9	532.5	503.1
32.5°	565.8	566.2	579.0	583.6	580.5	581.7	580.5	567.0	560.4	558.1	525.9
35°	592.1	592.5	605.7	607.2	602.2	602.6	604.9	589.0	589.0	594.5	560.0
37.5°	617.3	618.5	630.1	628.5	626.6	630.1	633.2	619.6	627.4	642.9	601.4
40°	636.3	639.0	654.5	653.7	658.0	661.5	664.2	657.2	669.6	699.8	652.5
42.5°	648.7	654.1	676.2	681.6	689.0	695.1	699.8	699.4	721.1	762.9	706.8
45°	661.5	666.9	696.3	709.5	721.9	731.6	740.5	745.1	779.6	829.5	769.9
47.5°	676.9	681.6	714.5	740.5	756.3	769.5	785.4	795.5	839.2	897.3	828.4
50°	700.6	703.7	733.1	773.4	793.5	811.7	831.5	852.0	903.5	966.6	879.5
52.5°	731.2	733.1	754.8	806.7	838.8	858.2	887.6	914.7	968.9	1029.4	921.3
55°	766.0	764.5	781.1	846.6	884.1	913.2	949.6	977.1	1037.9	1084.0	954.6
57.5°	800.9	799.7	812.9	884.9	941.5	975.5	1013.1	1042.1	1101.0	1135.1	978.6
60°	834.2	829.9	848.5	929.8	1010.8	1049.9	1083.6	1110.3	1160.6	1171.9	991.4
62.5°	863.6	863.6	890.7	985.2	1093.6	1128.9	1155.6	1173.4	1217.6	1199.0	986.4
65°	890.7	894.2	932.9	1047.2	1179.6	1215.6	1238.9	1245.8	1274.1	1200.1	943.8
67.5°	921.3	926.7	981.3	1119.6	1278.8	1317.1	1337.2	1334.9	1314.4	1182.3	852.4
70°	951.1	960.0	1041.4	1212.9	1401.1	1453.0	1475.1	1429.4	1335.3	1083.6	707.9
72.5°	972.8	987.9	1090.6	1306.3	1576.6	1656.4	1647.4	1455.4	1237.3	893.0	535.6
74°	909.3	934.5	1077.0	1338.4	1639.7	1709.8	1645.9	1403.9	1119.2	719.2	379.5
75°	835.3	859.7	1008.4	1325.6	1651.7	1683.1	1566.1	1313.2	1003.8	557.3	247.9
77.5°	618.5	637.4	774.5	1045.2	1306.3	1297.0	1166.1	889.9	494.5	168.1	104.6
80°	273.0	287.4	382.2	525.9	707.5	704.8	656.4	409.0	159.6	87.9	63.9
82.5°	82.5	82.1	110.0	153.4	268.8	273.8	232.7	141.0	76.3	36.4	31.0
85°	0.4	0.4	0.4	0.4	1.2	10.1	8.5	27.1	13.9	6.6	11.2
87.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	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: P401220

CATALOG NUMBER: ENT-SA1B-830-U-SL4

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	482.2	482.2	482.2	482.2	482.2	482.2	482.2	482.2	482.2	482.2	482.2
2.5°	475.6	475.2	474.0	471.3	469.4	463.6	465.5	461.6	461.2	460.5	460.1
5°	463.6	462.0	457.4	451.9	445.7	436.1	433.0	427.2	423.7	422.5	423.3
7.5°	451.2	447.7	438.8	427.2	414.8	400.4	390.0	381.8	376.0	374.1	371.4
10°	443.4	437.6	422.5	403.1	383.0	362.9	345.4	333.4	324.5	317.6	317.6
12.5°	440.7	433.0	410.9	382.6	353.6	324.9	299.7	283.9	268.8	261.4	260.2
15°	442.3	431.4	401.2	364.0	325.3	288.1	257.1	234.3	220.0	211.1	214.2
17.5°	443.8	430.3	391.1	344.3	297.8	254.8	218.8	192.9	175.4	170.8	168.8
20°	445.7	427.9	378.4	323.0	269.5	222.7	184.7	158.4	145.2	139.4	139.4
22.5°	448.5	424.8	365.2	299.4	240.5	191.3	156.1	136.3	125.9	122.4	122.4
25°	452.3	422.9	351.6	275.7	213.0	166.5	137.1	121.6	116.2	113.9	113.5
27.5°	459.7	423.3	338.5	251.7	185.9	145.6	123.5	113.5	109.2	108.0	107.7
30°	470.9	427.2	324.5	226.2	161.9	129.7	114.2	107.3	104.6	103.8	103.8
32.5°	486.4	434.1	312.9	203.3	144.1	117.0	106.5	101.9	100.3	99.5	99.9
35°	510.4	446.1	299.0	182.4	127.4	108.0	100.3	96.8	95.7	95.7	96.0
37.5°	541.8	464.7	285.4	163.0	116.2	100.3	94.5	92.6	91.4	92.2	92.6
40°	581.3	486.8	272.6	145.6	106.9	94.1	89.5	87.9	87.5	88.3	89.1
42.5°	623.9	513.5	261.0	131.3	99.5	89.1	85.2	84.4	84.0	84.4	85.6
45°	673.5	544.1	251.3	120.4	94.1	84.8	81.3	80.6	80.2	80.9	81.7
47.5°	719.2	571.6	243.6	113.1	89.5	81.7	78.2	77.1	77.1	77.1	77.8
50°	756.3	593.3	238.9	108.0	85.6	78.2	75.1	74.0	73.6	73.2	73.6
52.5°	788.5	609.6	237.4	104.9	82.5	75.1	72.0	71.3	70.5	69.7	70.1
55°	809.8	617.7	234.3	102.2	79.8	71.6	68.9	68.2	67.4	66.2	66.2
57.5°	822.2	616.9	227.3	100.7	78.2	68.5	65.8	65.8	65.1	63.1	63.5
60°	823.3	603.4	210.3	98.8	77.1	65.4	62.4	63.1	63.1	61.6	61.6
62.5°	803.6	567.7	177.4	93.7	75.5	63.1	59.6	61.6	62.4	60.8	60.8
65°	742.8	483.7	142.5	86.4	71.6	60.4	56.5	60.4	62.7	61.6	61.2
67.5°	626.2	383.0	117.7	78.2	67.4	56.9	53.4	58.5	61.6	61.6	61.2
70°	502.7	290.8	96.8	69.3	60.8	52.7	50.0	54.2	56.9	57.7	57.7
72.5°	346.2	177.8	78.6	59.6	53.4	47.6	45.3	48.0	49.6	51.1	50.7
74°	223.5	124.7	68.9	54.2	48.8	43.8	42.6	43.8	44.5	46.1	46.5
75°	149.5	101.9	64.3	50.3	46.1	41.1	40.3	41.4	42.2	43.4	43.4
77.5°	86.0	72.8	51.9	41.8	38.3	35.2	34.9	35.2	36.4	37.6	37.2
80°	59.6	55.4	41.1	32.5	30.2	28.7	29.0	29.4	31.4	31.8	31.4
82.5°	36.0	39.9	29.0	24.4	22.8	22.5	23.6	24.4	25.9	26.3	25.9
85°	14.3	19.0	14.3	13.6	15.1	16.7	18.6	19.8	20.5	20.5	20.5
87.5°	0.0	2.7	3.5	5.4	8.5	10.1	13.2	14.3	15.1	14.7	14.3
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)