

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: P401214

Luminaire Tested: **ENT-SA1B-827-U-T4W**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401214
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-17)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1B-827-U-T4W
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 2700K, 450mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2520 lumens
Efficiency: N/A
Efficacy: 99.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Semi-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

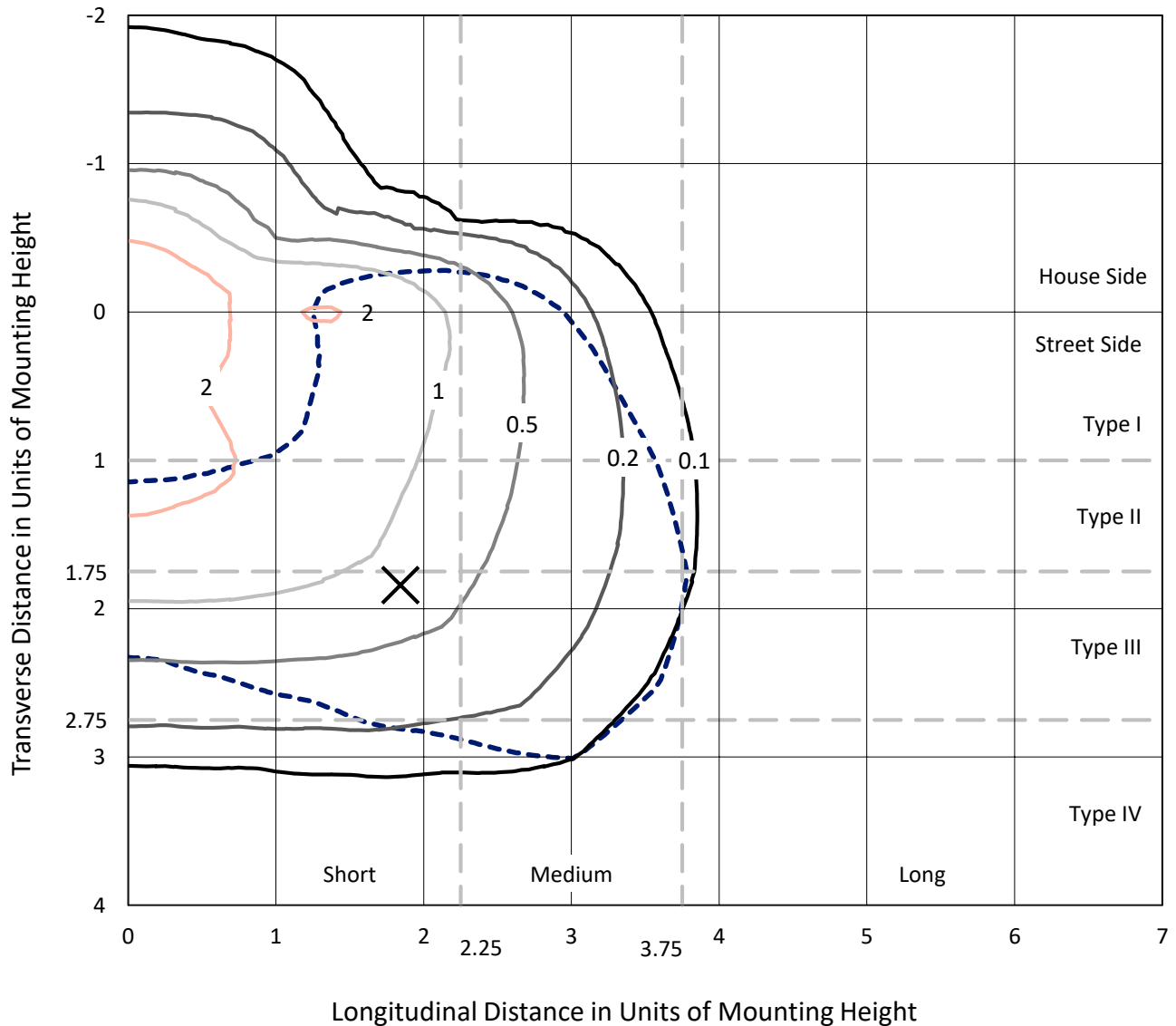


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

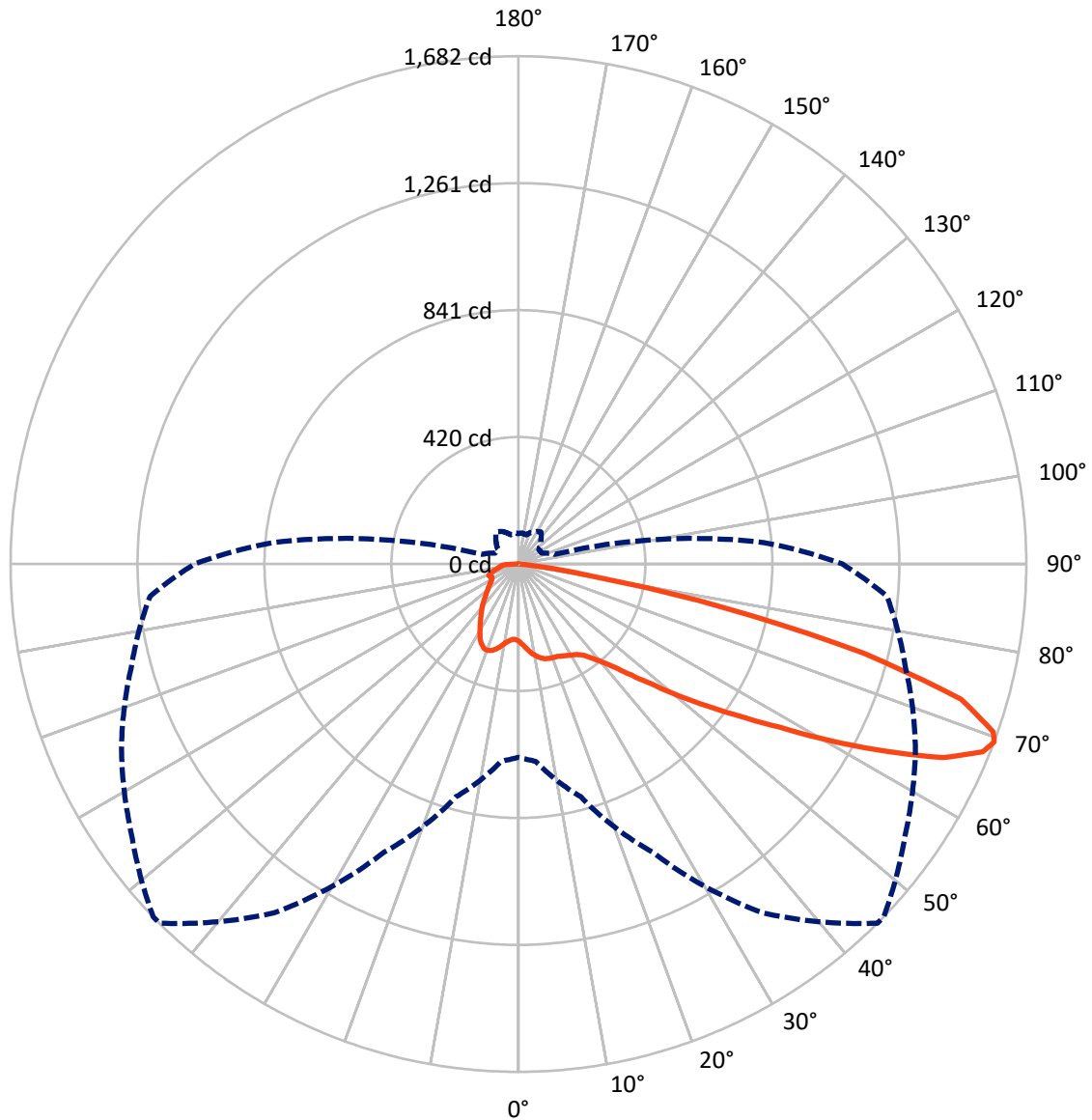


Based on 10 foot mounting height. Maximum calculated value = 3.1 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	593.3	0.0	593.3
	% Fixture	23.5	0.0	23.5
Street Side	Lumens	1926.7	0.0	1926.7
	% Fixture	76.5	0.0	76.5
Total	Lumens	2520.0	0.0	2520.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.0	1.0
10°-20°	86.4	3.4
20°-30°	145.9	5.8
30°-40°	211.2	8.4
40°-50°	318.8	12.7
50°-60°	537.6	21.3
60°-70°	739.6	29.3
70°-80°	409.8	16.3
80°-90°	44.6	1.8
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°	2520.0	100.0
0°-180°	2520.0	100.0

Coefficient of Utilization



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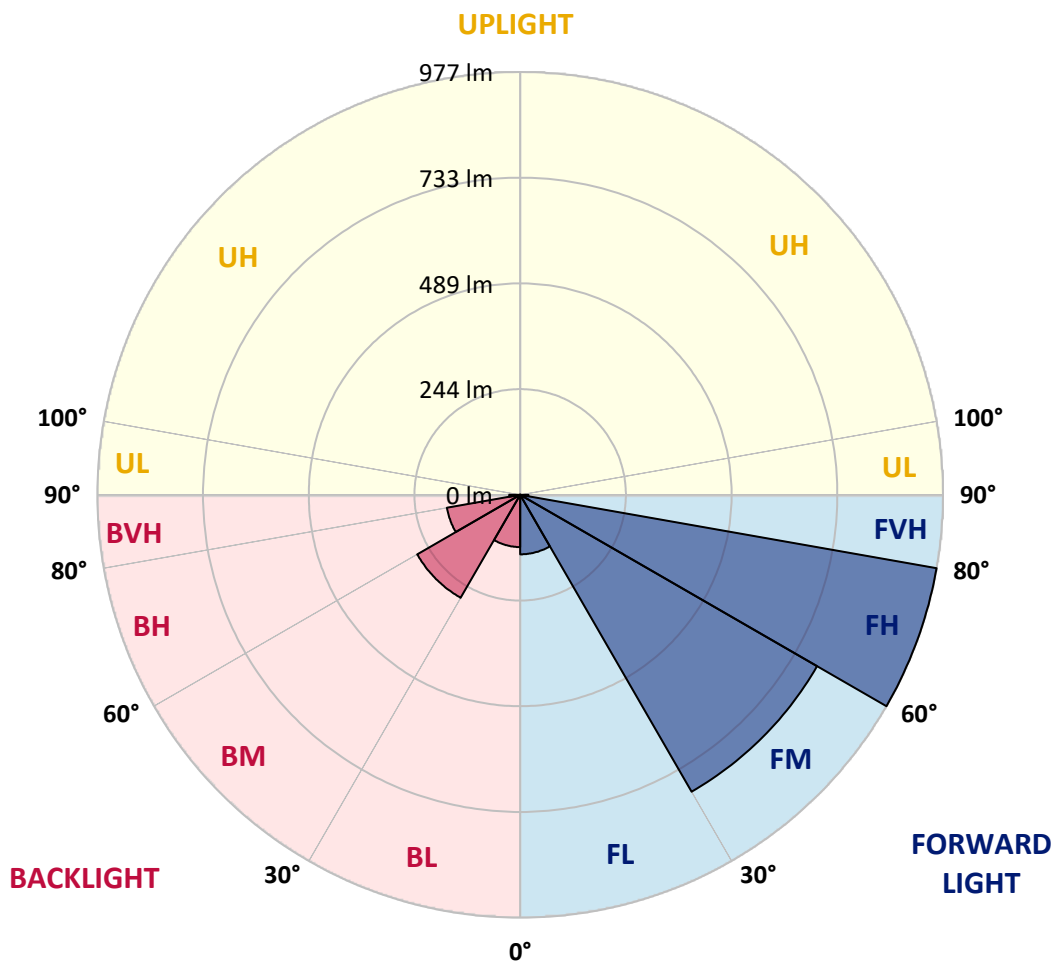
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	137.5	5.5			
FM	(30°-60°)	792.6	31.5			
FH	(60°-80°)	977.5	38.8			G1/1800
FVH	(80°-90°)	19.1	0.8			G1/100
BL	(0°-30°)	120.8	4.8	B1/500		
BM	(30°-60°)	275.0	10.9	B1/1000		
BH	(60°-80°)	172.0	6.8	B1/500		G1/500
BVH	(80°-90°)	25.5	1.0			G1/100
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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	255.8	255.8	255.8	255.8	255.8	255.8	255.8	255.8	255.8	255.8	255.8
2.5°	271.9	271.5	271.9	270.5	269.0	266.9	266.2	263.7	261.9	259.4	257.2
5°	292.0	293.0	292.7	290.9	285.2	280.9	280.9	275.5	269.8	264.4	259.4
7.5°	313.8	313.8	311.7	308.1	302.4	295.9	295.2	288.0	279.8	272.3	264.4
10°	329.6	330.3	327.1	322.1	314.9	308.1	307.4	299.1	291.3	281.6	271.9
12.5°	340.7	340.7	337.8	333.2	324.6	318.1	317.4	309.9	301.6	291.6	280.5
15°	346.4	345.7	343.2	338.2	330.7	325.3	324.2	317.8	311.0	300.9	289.1
17.5°	345.3	345.3	343.2	338.2	332.8	328.5	327.8	323.1	318.1	308.4	296.6
20°	340.7	340.3	339.6	335.7	332.1	330.3	329.6	327.4	324.2	316.0	304.9
22.5°	336.4	336.0	335.0	332.5	331.0	332.1	332.1	331.7	331.4	324.9	314.2
25°	338.9	338.5	336.4	332.8	332.5	337.5	337.8	338.9	339.6	334.2	323.1
27.5°	356.5	355.4	349.3	340.0	336.7	343.2	343.9	347.1	346.4	340.7	331.0
30°	390.8	391.2	377.6	357.5	346.8	349.6	350.0	353.6	352.5	347.9	340.0
32.5°	442.8	442.8	420.6	390.1	362.9	357.2	356.1	359.3	363.6	357.5	349.6
35°	508.7	506.9	480.0	433.1	390.5	370.1	369.3	367.9	375.4	369.7	358.2
37.5°	575.0	568.5	542.4	490.8	429.2	395.1	392.3	388.0	392.3	380.1	370.1
40°	628.4	627.3	605.8	553.5	475.0	425.6	423.4	404.5	407.3	397.7	393.7
42.5°	687.1	687.8	673.5	620.8	529.8	466.8	461.1	431.7	439.9	436.3	434.5
45°	751.6	750.9	740.1	685.0	596.8	524.1	516.9	480.8	497.6	495.5	505.5
47.5°	801.0	805.0	798.9	759.8	676.4	593.6	588.2	544.2	569.6	586.8	605.8
50°	868.4	868.0	851.5	835.4	768.8	682.5	677.1	628.0	664.5	689.6	724.4
52.5°	951.9	949.0	915.0	909.2	881.3	779.5	774.9	723.7	776.0	797.8	868.4
55°	1004.2	1003.8	986.2	996.3	997.0	887.7	882.0	836.5	895.6	920.7	1027.4
57.5°	1047.9	1048.2	1062.9	1098.0	1121.7	1019.2	1017.1	961.5	1021.4	1056.5	1182.6
60°	1081.5	1088.7	1129.9	1210.1	1249.6	1186.9	1177.5	1118.8	1158.9	1172.9	1301.1
62.5°	1067.9	1077.2	1158.2	1276.4	1377.8	1364.5	1361.3	1276.4	1276.1	1268.9	1389.6
65°	960.5	980.5	1108.0	1273.9	1462.4	1545.1	1540.4	1425.1	1385.0	1349.1	1416.1
67.5°	786.0	790.3	944.0	1176.5	1461.6	1658.7	1653.7	1533.3	1452.7	1364.9	1338.4
69°	639.8	655.6	797.8	1053.2	1410.0	1681.6	1681.6	1563.4	1450.2	1327.3	1224.5
70°	553.5	554.2	691.4	955.1	1339.8	1668.0	1671.2	1563.4	1429.7	1278.2	1123.5
72.5°	259.4	275.5	362.2	623.3	1082.3	1533.3	1541.2	1460.2	1311.2	1101.2	842.9
75°	77.7	80.6	120.7	295.6	620.1	1181.1	1198.7	1214.8	1067.9	810.7	519.1
77.5°	46.2	45.9	58.4	100.3	287.0	700.4	708.2	777.0	692.8	450.7	235.7
80°	22.6	23.3	31.2	48.7	107.5	254.4	279.8	363.3	307.0	176.3	86.3
82.5°	7.5	8.2	12.9	19.7	45.5	82.0	90.6	113.9	98.2	64.1	36.9
85°	0.0	0.0	0.4	0.7	2.5	6.1	6.1	13.6	20.4	22.6	12.2
87.5°	0.0	0.0	0.4	0.4	0.7	0.7	0.7	0.7	0.7	0.7	1.1
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°	255.8	255.8	255.8	255.8	255.8	255.8	255.8	255.8	255.8	255.8	255.8
2.5°	256.1	255.4	254.0	252.6	251.8	250.1	250.4	249.7	249.3	249.3	249.7
5°	256.9	255.8	253.6	252.2	250.8	250.1	251.8	252.6	253.3	253.3	253.6
7.5°	261.2	259.0	256.5	254.7	255.1	256.1	259.0	261.2	262.2	263.0	263.7
10°	268.3	265.8	262.2	261.9	262.6	265.5	269.4	272.6	275.5	277.3	277.3
12.5°	275.8	272.6	269.8	270.5	273.7	278.0	281.9	285.5	288.0	289.8	290.2
15°	284.1	280.9	278.0	279.8	285.2	290.2	293.8	295.2	296.3	298.1	298.4
17.5°	291.6	288.7	286.2	290.9	295.6	299.5	300.6	299.8	298.4	299.5	300.2
20°	299.5	297.0	295.6	300.6	303.8	304.1	301.3	298.1	294.5	294.5	294.8
22.5°	309.2	305.9	305.2	307.7	306.7	302.4	295.2	290.2	285.2	284.4	285.5
25°	318.5	315.3	314.9	313.1	303.8	292.7	283.0	277.3	273.3	273.7	275.8
27.5°	327.8	325.6	326.0	316.3	295.6	278.7	265.8	261.2	262.2	263.0	265.1
30°	337.1	337.1	338.5	316.3	284.1	259.0	246.8	246.5	249.3	251.5	254.0
32.5°	347.9	351.1	348.6	312.4	268.7	238.9	229.3	230.0	233.2	236.8	238.9
35°	358.2	365.8	358.6	303.4	247.5	220.7	212.8	211.7	214.2	217.5	218.5
37.5°	374.7	386.9	367.2	289.5	225.7	204.6	196.7	193.8	191.3	193.8	193.5
40°	403.4	418.1	373.6	266.2	204.6	189.5	181.3	175.9	169.8	164.4	164.4
42.5°	449.2	458.9	377.2	237.9	183.4	174.5	166.2	158.3	149.0	139.4	139.4
45°	524.1	526.3	378.7	207.8	164.1	159.4	150.8	143.3	131.1	121.4	119.3
47.5°	624.1	614.7	382.2	178.8	147.2	146.2	139.0	130.4	117.1	108.2	107.1
50°	758.4	718.3	398.0	155.5	133.6	134.7	129.3	119.3	106.8	100.3	98.9
52.5°	909.6	849.0	410.2	136.8	121.8	125.0	121.1	111.4	100.7	95.3	94.2
55°	1074.7	974.8	407.3	124.3	112.8	116.4	115.0	106.8	97.1	92.4	91.4
57.5°	1209.4	1063.3	382.2	113.2	103.9	108.9	110.3	103.9	94.9	90.6	89.6
60°	1310.5	1111.6	330.7	103.9	96.7	102.8	106.8	102.1	94.6	92.1	91.0
62.5°	1356.3	1107.3	263.7	96.7	91.4	98.5	107.1	105.0	99.9	101.7	102.1
65°	1330.5	1053.2	197.8	91.4	88.1	99.2	113.2	113.2	105.7	108.9	109.3
67.5°	1198.3	911.7	144.0	87.4	84.9	102.8	124.7	117.5	103.2	105.7	104.6
69°	1072.6	815.7	123.6	85.3	82.4	104.6	129.7	118.2	100.3	103.2	100.3
70°	980.2	729.0	111.1	83.5	81.3	104.6	131.1	117.5	98.9	101.0	97.8
72.5°	697.5	506.2	91.4	79.9	77.4	96.7	128.6	113.6	94.9	92.4	86.3
75°	405.5	279.8	77.7	75.9	68.4	84.9	122.2	109.3	91.0	86.3	82.0
77.5°	170.2	125.0	66.3	69.1	60.5	75.6	114.3	105.0	86.3	79.9	77.7
80°	69.1	62.3	55.2	59.8	52.7	66.6	105.3	97.8	79.5	73.1	69.9
82.5°	36.2	34.4	42.3	48.4	43.7	61.3	99.2	92.8	73.8	67.3	63.4
85°	10.7	14.3	24.0	33.0	33.3	55.2	96.4	86.0	64.1	55.5	54.8
87.5°	0.7	2.9	8.2	17.2	21.9	42.3	78.1	70.6	51.9	43.7	44.1
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)