

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: P401014

Luminaire Tested: **ENT-SA1A-760-U-T4FT**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401014
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-15)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1A-760-U-T4FT
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 5700K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV FORWARD
THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2617 lumens
Efficiency: N/A
Efficacy: 130.2 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

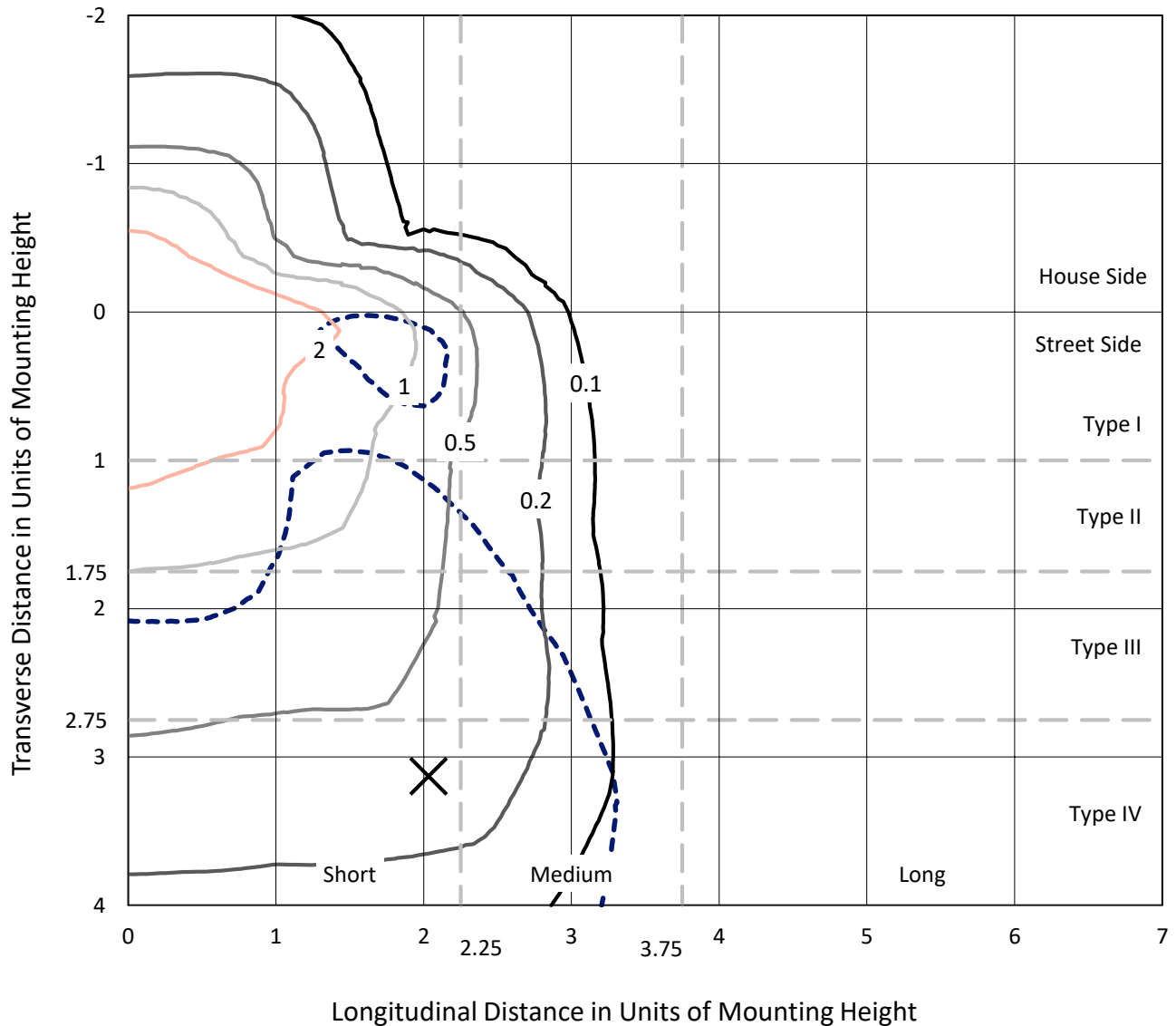
Input Watts (W): 20.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

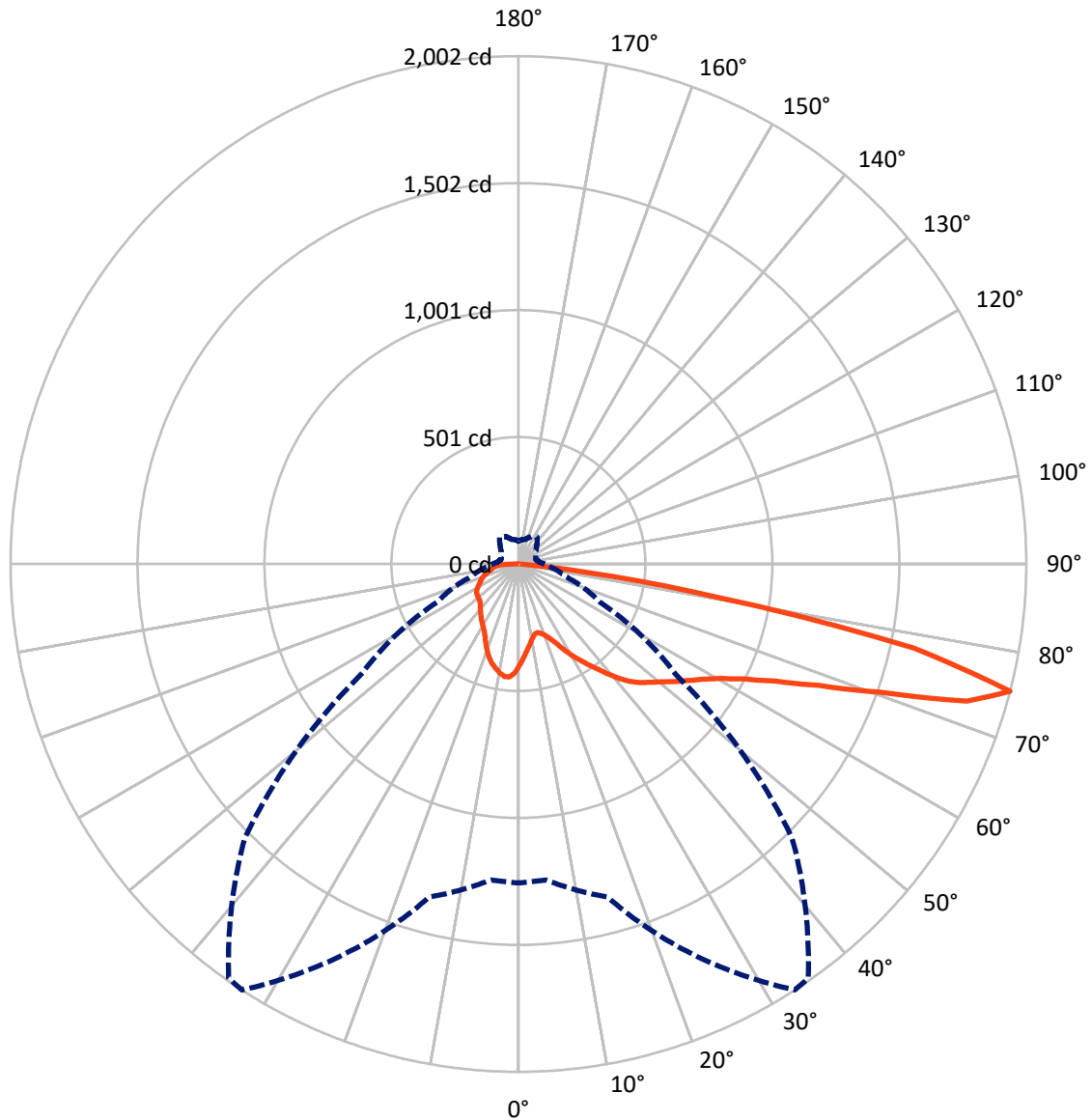
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.3 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 33-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	635.7	0.0	635.7
	% Fixture	24.3	0.0	24.3
Street Side	Lumens	1981.3	0.0	1981.3
	% Fixture	75.7	0.0	75.7
Total	Lumens	2617.0	0.0	2617.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.5	1.4
10°-20°	105.4	4.0
20°-30°	175.2	6.7
30°-40°	261.4	10.0
40°-50°	365.1	14.0
50°-60°	487.4	18.6
60°-70°	604.3	23.1
70°-80°	522.5	20.0
80°-90°	58.4	2.2
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°	2617.0	100.0
0°-180°	2617.0	100.0



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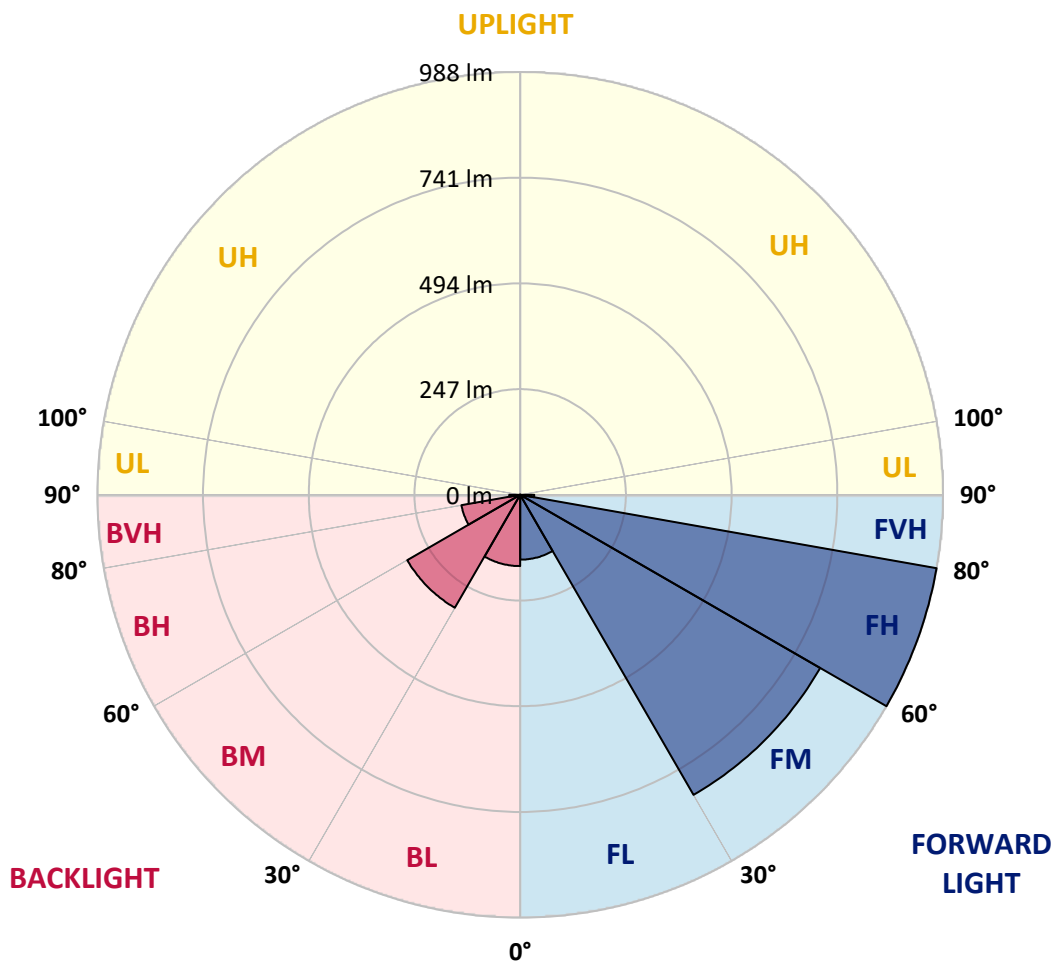
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	151.5	5.8			
FM	(30°-60°)	809.2	30.9			
FH	(60°-80°)	987.5	37.7			G1/1800
FVH	(80°-90°)	33.0	1.3			G1/100
BL	(0°-30°)	166.5	6.4	B1/500		
BM	(30°-60°)	304.6	11.6	B1/1000		
BH	(60°-80°)	139.2	5.3	B1/500		G1/500
BVH	(80°-90°)	25.4	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°	33°	35°	45°	55°	65°	75°	85°
0°	401.0	401.0	401.0	401.0	401.0	401.0	401.0	401.0	401.0	401.0	401.0
2.5°	363.7	364.5	366.8	369.5	371.1	371.1	375.4	380.4	386.6	392.1	397.9
5°	333.4	334.6	336.5	340.0	344.3	345.0	353.6	362.5	373.8	385.8	397.5
7.5°	303.5	305.8	309.7	314.4	321.0	322.5	334.6	346.6	362.1	380.4	399.4
10°	280.5	282.1	284.0	290.6	298.8	301.5	317.5	332.6	354.0	376.5	401.8
12.5°	274.3	274.3	274.3	277.4	284.0	286.4	303.1	322.5	346.6	373.8	405.3
15°	283.3	282.9	278.6	276.3	280.2	282.1	296.5	315.5	342.7	374.6	411.9
17.5°	303.5	302.3	292.2	284.4	287.2	288.3	297.6	314.0	341.6	377.7	421.6
20°	329.9	327.2	311.6	300.0	299.6	300.4	307.4	318.6	343.5	383.1	432.1
22.5°	364.9	363.3	340.4	322.5	319.4	319.4	322.5	329.5	348.5	389.3	446.5
25°	409.9	405.7	378.1	354.0	347.0	345.0	344.7	344.7	357.5	398.7	464.3
27.5°	456.2	451.1	423.2	390.5	381.2	377.7	371.5	366.8	369.1	408.8	485.7
30°	497.8	490.8	467.1	433.3	419.3	413.8	402.6	392.8	386.6	422.8	514.1
32.5°	520.7	518.0	501.6	470.9	455.0	452.7	434.0	421.2	410.3	441.0	552.2
35°	551.4	547.9	537.4	512.1	493.1	487.3	473.3	458.1	440.6	465.5	600.3
37.5°	579.7	577.8	573.9	556.4	536.2	530.4	517.6	501.6	477.9	501.6	654.3
40°	608.5	606.2	604.6	598.4	584.0	580.1	573.9	555.3	523.4	541.3	707.6
42.5°	650.5	645.4	629.1	628.7	629.9	633.0	633.4	612.8	573.1	590.6	754.2
45°	705.3	691.3	654.7	653.6	667.2	675.3	695.1	677.7	624.8	641.1	806.3
47.5°	733.2	718.9	681.2	678.8	696.7	708.7	757.7	740.6	678.4	697.9	860.3
50°	746.8	737.5	704.5	711.9	730.1	741.8	817.2	803.6	734.0	759.3	928.3
52.5°	765.9	750.3	727.0	742.6	769.8	781.8	870.4	868.1	781.0	826.1	1002.9
55°	759.3	751.1	755.4	776.4	810.6	828.4	924.0	924.0	828.8	897.6	1076.7
57.5°	764.7	759.3	794.6	813.3	856.4	882.1	988.5	971.4	869.2	957.4	1126.5
60°	810.9	795.4	823.0	859.9	915.5	940.3	1062.3	1021.2	902.3	1009.1	1135.4
62.5°	892.5	880.1	882.8	925.2	997.1	1025.8	1135.4	1065.1	924.4	1030.9	1102.0
65°	1027.8	1021.9	988.5	1014.2	1113.2	1139.3	1226.7	1103.1	918.2	1014.6	1013.8
67.5°	1209.6	1186.3	1141.2	1164.2	1278.4	1304.8	1336.7	1117.5	877.8	917.0	814.8
70°	1360.4	1341.0	1320.4	1380.6	1511.9	1526.3	1451.3	1103.9	779.5	717.7	546.3
72.5°	1456.4	1442.4	1461.4	1638.6	1848.8	1821.6	1564.4	1008.7	608.1	439.5	273.2
75°	1257.0	1250.4	1359.2	1718.6	2002.3	1992.2	1525.1	755.0	352.8	193.5	124.3
77.5°	632.2	704.1	818.7	1219.3	1593.1	1595.1	1111.3	362.9	148.4	108.4	85.5
80°	178.0	180.3	273.2	502.8	795.4	847.5	420.4	123.2	84.7	80.8	63.7
82.5°	42.4	39.2	69.9	148.8	266.9	277.8	126.3	44.3	47.4	50.5	39.2
85°	0.4	0.4	0.4	0.4	0.4	0.8	4.7	4.7	11.3	14.4	11.3
87.5°	0.0	0.0	0.0	0.4	0.4	0.4	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	401.0	401.0	401.0	401.0	401.0	401.0	401.0	401.0	401.0	401.0	401.0
2.5°	400.6	404.5	410.7	416.2	420.8	424.3	429.8	430.5	432.1	432.9	433.6
5°	404.1	411.5	423.2	433.3	440.2	442.2	446.9	446.5	446.9	446.9	446.5
7.5°	408.8	418.9	435.2	446.5	450.4	449.2	448.0	443.7	440.2	438.7	436.8
10°	414.6	426.3	445.3	453.5	451.5	445.3	437.9	430.1	423.9	420.8	420.0
12.5°	420.4	435.6	453.5	455.8	448.0	436.8	424.3	415.8	407.6	403.3	403.3
15°	430.1	446.9	460.1	455.4	441.4	427.0	409.9	398.3	389.0	383.1	382.7
17.5°	441.8	459.7	467.1	453.5	433.3	413.0	392.5	377.3	365.3	359.4	355.9
20°	456.2	472.9	470.6	447.2	421.2	396.3	370.7	352.4	340.0	333.8	332.6
22.5°	472.5	486.5	471.7	437.1	404.9	373.0	345.0	326.8	318.6	314.0	314.4
25°	492.3	503.2	472.1	425.1	381.6	342.3	317.8	309.3	308.1	306.2	307.0
27.5°	517.2	520.7	470.6	408.8	351.7	310.1	295.7	299.2	302.3	301.1	301.9
30°	546.7	541.7	467.1	385.1	314.7	280.5	281.3	289.1	293.4	292.2	292.6
32.5°	581.3	562.6	460.5	356.3	279.8	262.7	268.9	276.7	280.9	280.9	281.3
35°	620.2	587.9	447.6	319.0	255.3	251.8	257.2	263.4	266.2	264.6	265.8
37.5°	661.0	609.7	427.0	277.4	237.0	243.2	246.4	247.9	247.5	245.2	244.0
40°	699.0	626.8	390.1	236.2	221.9	234.3	235.9	231.6	226.5	222.3	219.5
42.5°	728.2	635.7	338.8	206.3	207.5	224.2	225.4	216.8	207.1	200.5	198.9
45°	758.1	638.8	287.9	182.2	192.0	214.1	217.2	205.6	192.3	184.6	183.4
47.5°	792.3	646.6	237.8	165.5	178.7	207.1	212.2	197.8	183.0	171.4	169.4
50°	838.1	661.3	200.1	152.7	169.4	203.6	210.6	191.6	172.9	160.1	158.5
52.5°	896.4	683.1	165.1	142.6	162.0	198.2	208.3	185.3	165.5	150.0	147.7
55°	946.6	691.3	142.6	134.1	154.3	191.6	206.3	183.0	157.4	139.9	137.2
57.5°	969.5	667.9	126.7	125.5	146.1	183.4	202.4	175.2	148.4	134.8	132.5
60°	959.0	610.1	114.6	117.7	136.8	172.9	192.3	167.5	142.2	130.9	128.6
62.5°	912.4	543.2	105.7	110.4	126.3	159.7	180.7	160.5	136.8	126.7	123.6
65°	830.4	469.8	99.1	103.7	117.0	146.9	171.4	152.3	130.6	120.5	117.7
67.5°	677.7	373.8	92.1	97.1	109.2	136.4	162.8	145.7	123.6	117.0	114.6
70°	448.4	251.4	85.5	90.5	101.4	126.3	153.9	138.7	117.0	112.7	109.6
72.5°	205.9	135.2	78.5	83.5	92.5	115.0	142.6	128.2	108.0	105.3	100.6
75°	101.8	83.2	69.9	74.6	81.6	101.4	129.4	119.3	99.9	95.2	89.8
77.5°	74.2	62.2	60.2	64.9	70.7	89.8	115.4	110.0	91.7	85.1	82.0
80°	55.2	48.2	50.5	55.2	60.6	81.2	108.0	103.0	84.7	78.1	75.8
82.5°	33.8	32.3	38.9	44.3	50.9	74.6	103.0	94.0	76.2	69.9	67.2
85°	9.7	11.7	19.8	28.8	36.1	60.2	96.0	82.4	64.1	53.6	51.7
87.5°	0.0	1.2	6.2	13.2	21.4	40.0	73.8	64.5	49.0	39.6	38.1
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)