

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: P401219

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

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401219
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-6)
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-HSS
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 3000K, 450mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV SPILL LIGHT
ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2235 lumens
Efficiency: N/A
Efficacy: 88.0 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

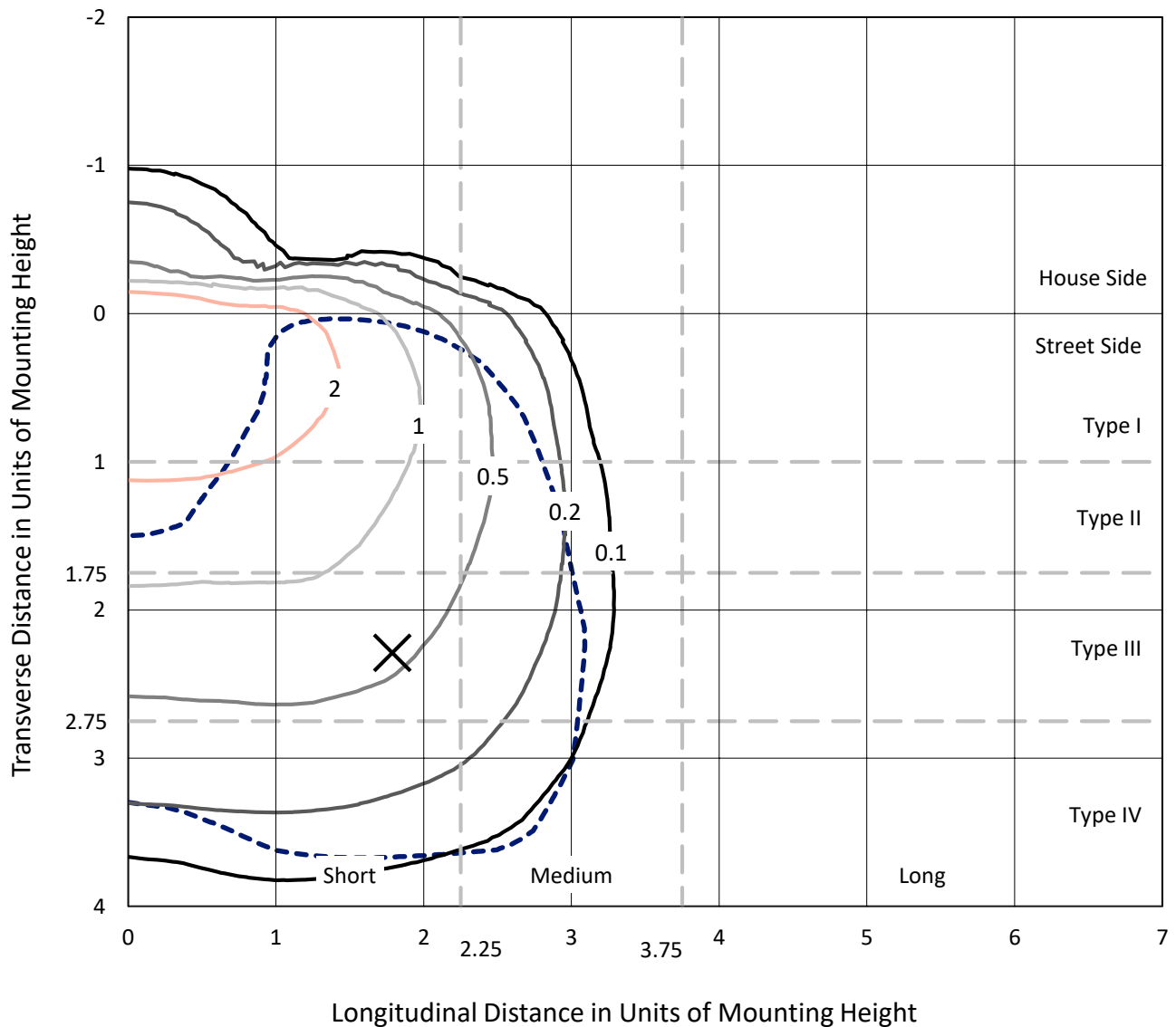
Input Watts (W): 25.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

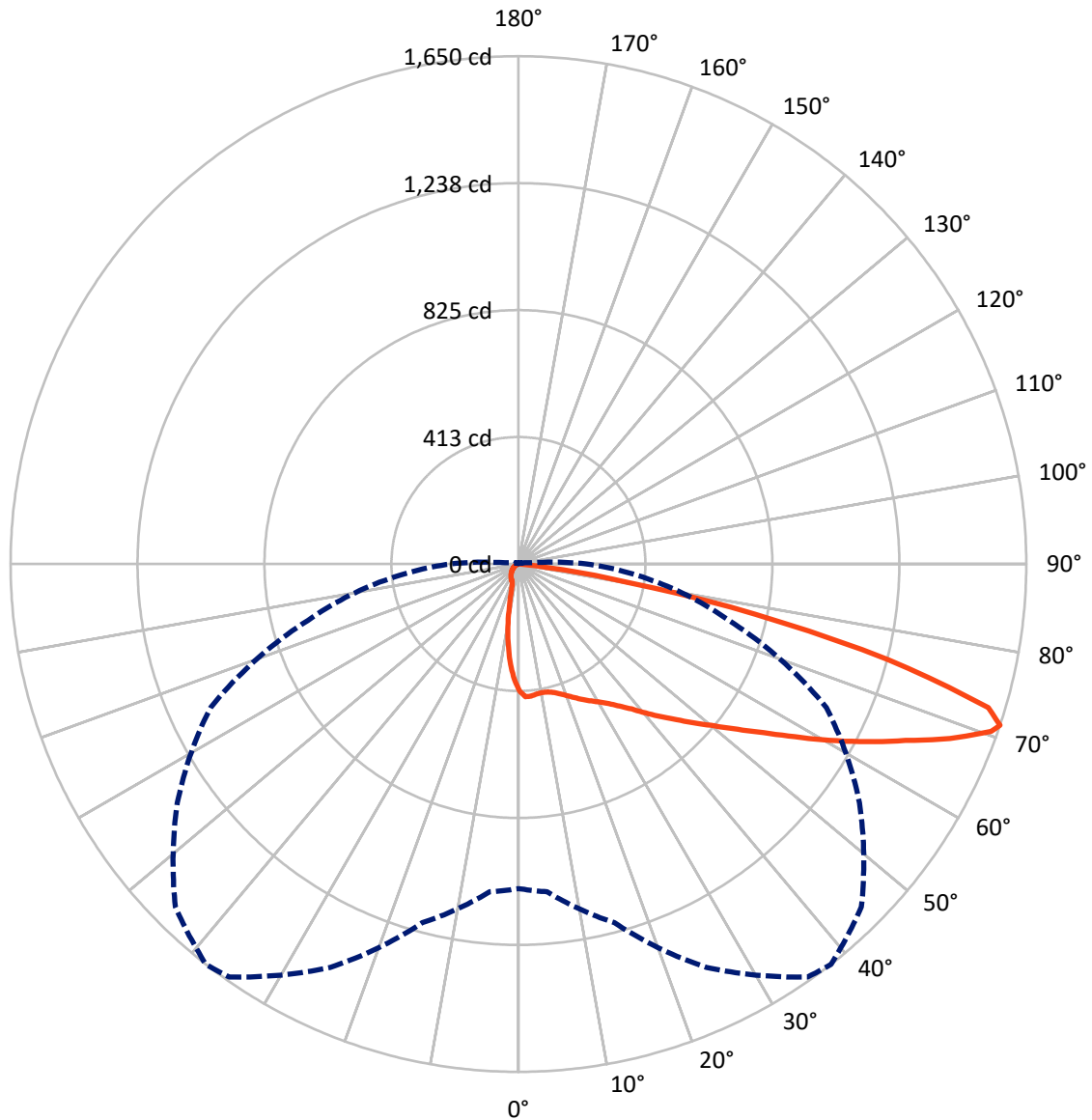


Based on 10 foot mounting height. Maximum calculated value = 4.2 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	190.9	0.0	190.9
	% Fixture	8.5	0.0	8.5
Street Side	Lumens	2044.1	0.0	2044.1
	% Fixture	91.5	0.0	91.5
Total	Lumens	2235.0	0.0	2235.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.8	1.6
10°-20°	84.3	3.8
20°-30°	135.1	6.0
30°-40°	205.5	9.2
40°-50°	320.3	14.3
50°-60°	468.4	21.0
60°-70°	600.8	26.9
70°-80°	367.2	16.4
80°-90°	18.4	0.8
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°	2235.0	100.0
0°-180°	2235.0	100.0



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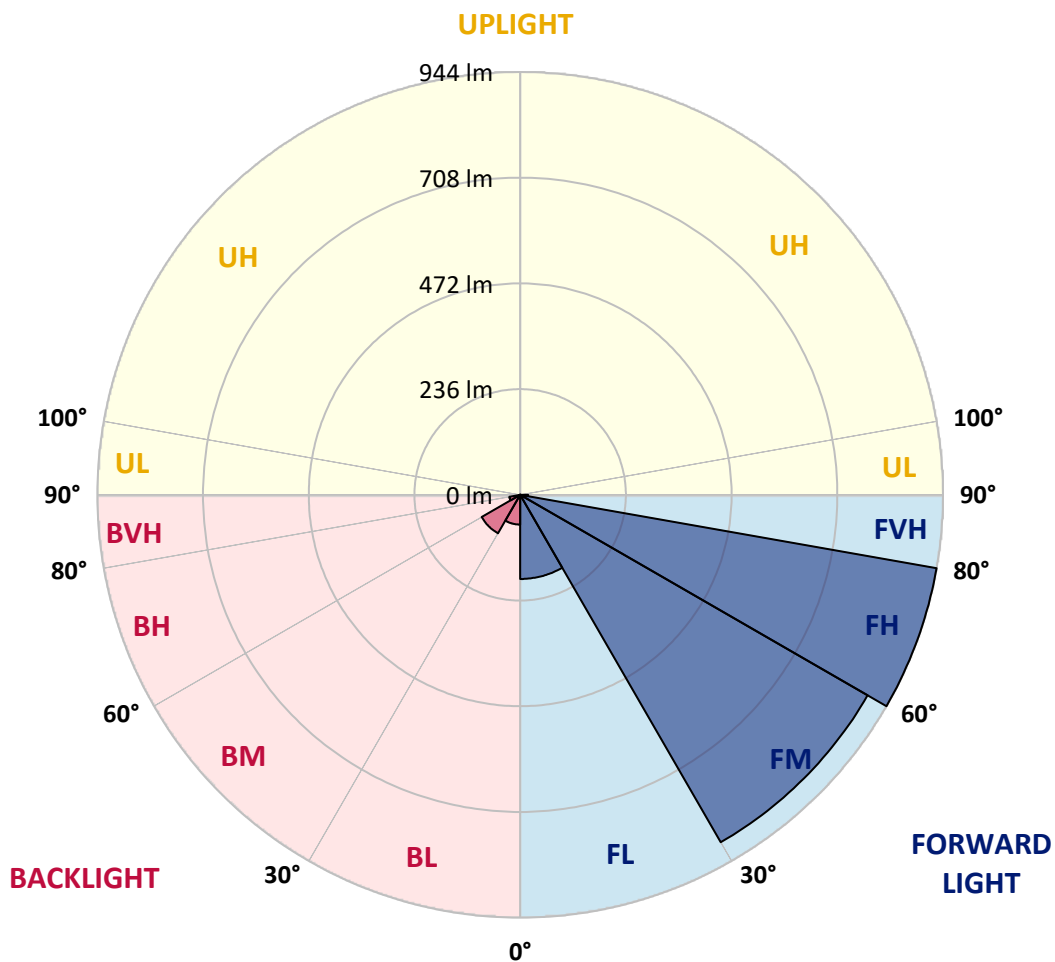
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	187.8	8.4			
FM	(30°-60°)	895.1	40.1			
FH	(60°-80°)	943.5	42.2			G1/1800
FVH	(80°-90°)	17.6	0.8			G1/100
BL	(0°-30°)	66.4	3.0	B0/110		
BM	(30°-60°)	99.2	4.4	B0/220		
BH	(60°-80°)	24.5	1.1	B0/110		G0/110
BVH	(80°-90°)	0.8	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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	412.0	412.0	412.0	412.0	412.0	412.0	412.0	412.0	412.0	412.0	412.0
2.5°	436.4	435.3	436.4	435.3	432.9	431.8	430.2	426.0	422.1	417.4	410.5
5°	437.2	436.4	436.4	434.9	432.2	431.0	429.5	425.2	420.2	413.2	402.7
7.5°	432.9	432.6	431.8	430.2	427.1	426.4	425.2	420.2	415.1	407.8	395.0
10°	426.0	426.7	426.4	426.4	425.2	424.4	423.6	417.8	412.4	403.9	390.3
12.5°	419.4	420.2	422.1	425.2	426.4	426.7	426.7	420.9	414.4	405.1	391.1
15°	415.1	416.7	422.1	428.3	431.8	432.9	434.1	427.9	420.2	410.1	395.4
17.5°	414.0	416.3	426.7	436.4	443.0	443.8	443.8	436.0	427.9	416.3	400.4
20°	417.8	420.9	434.5	448.0	456.2	456.9	455.4	445.3	435.6	422.9	404.7
22.5°	429.5	432.2	447.7	463.5	471.3	472.0	468.6	454.6	444.2	433.7	410.5
25°	449.6	451.1	467.8	482.9	487.2	488.3	482.5	465.9	453.8	444.2	418.6
27.5°	476.3	477.1	492.2	503.4	504.2	503.8	497.6	480.2	468.2	460.0	431.0
30°	504.2	505.4	517.7	525.1	522.0	520.5	515.0	496.4	485.6	479.4	448.8
32.5°	530.1	531.3	544.9	548.7	541.8	540.6	536.7	517.0	507.7	510.8	474.4
35°	555.7	555.7	571.2	573.1	566.9	566.9	566.9	543.3	541.8	552.2	510.0
37.5°	578.5	582.4	598.7	597.9	596.7	597.5	599.8	582.0	587.4	605.3	556.9
40°	597.9	602.9	624.6	626.6	631.6	635.9	639.3	630.0	642.8	671.9	616.9
42.5°	615.3	621.1	649.0	657.9	671.9	677.7	684.3	681.9	710.2	763.3	693.6
45°	637.8	644.0	672.6	693.9	713.3	721.0	735.8	745.8	792.7	853.1	776.4
47.5°	667.6	671.9	698.2	731.9	758.2	772.2	795.0	821.0	877.9	948.4	850.4
50°	708.3	708.7	728.4	772.2	811.3	826.4	865.9	899.6	970.8	1032.4	903.8
52.5°	753.2	750.9	766.4	821.7	871.3	891.8	938.3	985.1	1056.8	1093.2	927.8
55°	795.8	796.9	806.6	874.4	946.8	966.6	1025.4	1073.1	1135.4	1130.4	941.0
57.5°	845.0	844.6	857.0	932.1	1035.1	1057.9	1119.5	1158.6	1183.0	1157.1	943.3
60°	891.4	890.3	909.2	1001.0	1129.2	1162.9	1218.3	1216.7	1230.7	1174.1	941.4
62.5°	932.9	935.6	968.9	1081.2	1234.5	1270.9	1298.8	1279.5	1283.3	1193.9	917.4
65°	983.2	988.2	1042.1	1178.4	1364.6	1382.1	1392.9	1361.5	1322.8	1178.0	844.6
67.5°	1046.7	1061.8	1137.7	1321.7	1500.2	1512.2	1512.6	1411.1	1321.3	1097.8	710.2
70°	1071.9	1087.8	1208.6	1435.1	1614.4	1629.5	1582.3	1403.4	1217.1	859.7	479.4
71°	1054.5	1068.8	1206.6	1446.0	1638.0	1650.0	1576.1	1352.6	1103.6	708.3	371.4
72.5°	928.6	965.8	1132.3	1377.8	1595.8	1596.2	1475.8	1233.0	877.9	442.2	186.7
75°	501.5	546.4	829.9	1048.7	1231.0	1240.7	1135.4	856.2	424.8	114.6	45.3
77.5°	165.4	186.3	372.1	544.5	772.2	787.3	694.3	380.3	134.0	38.7	23.6
80°	103.8	106.1	125.9	228.9	343.5	356.3	285.8	154.1	60.4	21.3	16.3
82.5°	17.4	20.9	59.2	67.4	121.2	96.0	65.1	78.6	28.3	9.7	13.9
85°	0.0	0.0	0.4	0.4	1.9	0.4	0.4	15.9	1.5	1.5	7.4
87.5°	0.0	0.0	0.4	0.4	0.4	0.4	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	412.0	412.0	412.0	412.0	412.0	412.0	412.0	412.0	412.0	412.0	412.0
2.5°	407.4	404.3	398.1	391.5	383.4	376.4	374.1	369.0	366.7	364.8	364.8
5°	396.1	390.7	377.6	364.0	350.8	336.9	324.1	312.1	306.3	298.2	302.0
7.5°	386.9	377.6	359.0	337.7	310.6	283.1	261.8	243.2	227.7	222.7	219.2
10°	380.3	368.7	341.5	309.0	269.5	230.4	197.5	166.9	149.1	138.2	138.2
12.5°	379.5	364.8	329.5	279.6	222.7	169.6	129.0	99.9	85.6	79.0	78.6
15°	382.2	364.4	318.7	252.9	179.7	117.7	80.5	67.8	64.3	63.5	63.5
17.5°	384.5	364.0	305.9	222.7	132.4	77.4	63.9	61.6	60.8	60.4	60.4
20°	386.9	362.1	291.2	188.6	93.7	63.1	59.6	58.5	58.1	57.7	57.7
22.5°	390.0	360.1	276.1	149.9	69.3	58.9	56.9	55.8	55.4	55.4	55.4
25°	394.2	359.0	257.5	113.5	59.6	55.8	53.8	53.1	53.1	52.7	52.7
27.5°	402.3	360.1	237.4	81.3	55.8	52.7	51.5	50.7	50.7	50.3	50.3
30°	413.6	363.6	212.2	63.5	52.7	49.6	48.4	48.0	47.6	47.6	47.6
32.5°	429.5	369.0	184.7	54.2	48.8	46.5	45.3	44.9	44.9	44.9	44.5
35°	453.8	380.3	151.0	49.6	45.3	43.0	41.8	41.8	41.8	41.4	41.8
37.5°	491.0	398.5	116.9	45.7	41.4	39.5	38.7	38.3	38.3	38.3	38.3
40°	537.9	427.9	85.2	42.2	37.9	36.0	35.2	34.9	34.5	34.5	34.5
42.5°	598.3	460.4	62.0	38.3	34.9	32.9	32.1	31.4	30.6	30.2	30.2
45°	661.0	499.2	48.4	35.2	31.8	30.2	29.4	28.3	27.1	25.9	25.9
47.5°	721.8	529.0	41.4	31.8	29.0	27.5	26.7	25.2	23.2	22.1	22.1
50°	760.2	538.3	37.2	28.7	26.3	25.2	24.0	22.1	19.4	18.2	18.2
52.5°	772.2	521.2	33.3	25.9	24.0	22.8	21.3	18.6	15.9	14.3	14.3
55°	776.8	488.3	29.4	24.0	21.7	20.1	18.2	15.5	12.8	11.2	11.2
57.5°	771.0	441.8	26.3	21.7	19.4	17.8	15.5	12.4	9.7	8.5	8.5
60°	751.3	374.5	23.6	19.4	17.0	15.1	12.8	9.7	7.4	5.8	6.2
62.5°	697.8	289.7	20.5	16.3	14.7	12.8	10.1	7.4	4.6	3.9	3.9
65°	612.6	200.6	17.4	13.6	12.4	10.5	7.7	5.0	2.7	2.3	2.3
67.5°	497.6	129.7	13.6	11.2	10.5	8.5	5.8	3.1	1.5	1.5	1.2
70°	312.5	64.3	10.8	8.5	8.5	6.6	4.3	1.9	1.2	1.2	1.2
71°	221.1	43.8	9.7	7.7	7.7	6.2	3.9	1.5	1.2	1.2	1.2
72.5°	99.9	27.5	8.1	7.0	6.6	5.0	3.5	1.5	1.5	1.5	1.5
75°	31.4	15.1	5.8	5.4	5.4	4.3	3.1	1.9	1.9	1.9	1.9
77.5°	20.9	11.6	3.9	3.5	4.3	4.3	3.1	2.3	2.3	2.3	2.3
80°	17.0	6.2	2.3	2.3	3.1	3.9	3.1	2.3	2.7	2.3	2.3
82.5°	16.7	3.1	0.8	1.2	1.9	2.3	2.3	1.9	2.3	2.3	2.3
85°	7.0	0.8	0.4	0.8	0.8	1.2	1.2	1.5	1.9	1.9	1.9
87.5°	0.0	0.0	0.0	0.0	0.4	0.4	0.8	0.8	1.2	1.5	1.5
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)