

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: P401199

Luminaire Tested: **ENT-SA1B-827-U-SL3-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401199
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-4)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1B-827-U-SL3-HSS
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 2700K, 450mA LIGHTSQUARE WITH 16 LEDS AND TYPE III SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2111 lumens
Efficiency: N/A
Efficacy: 83.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - 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

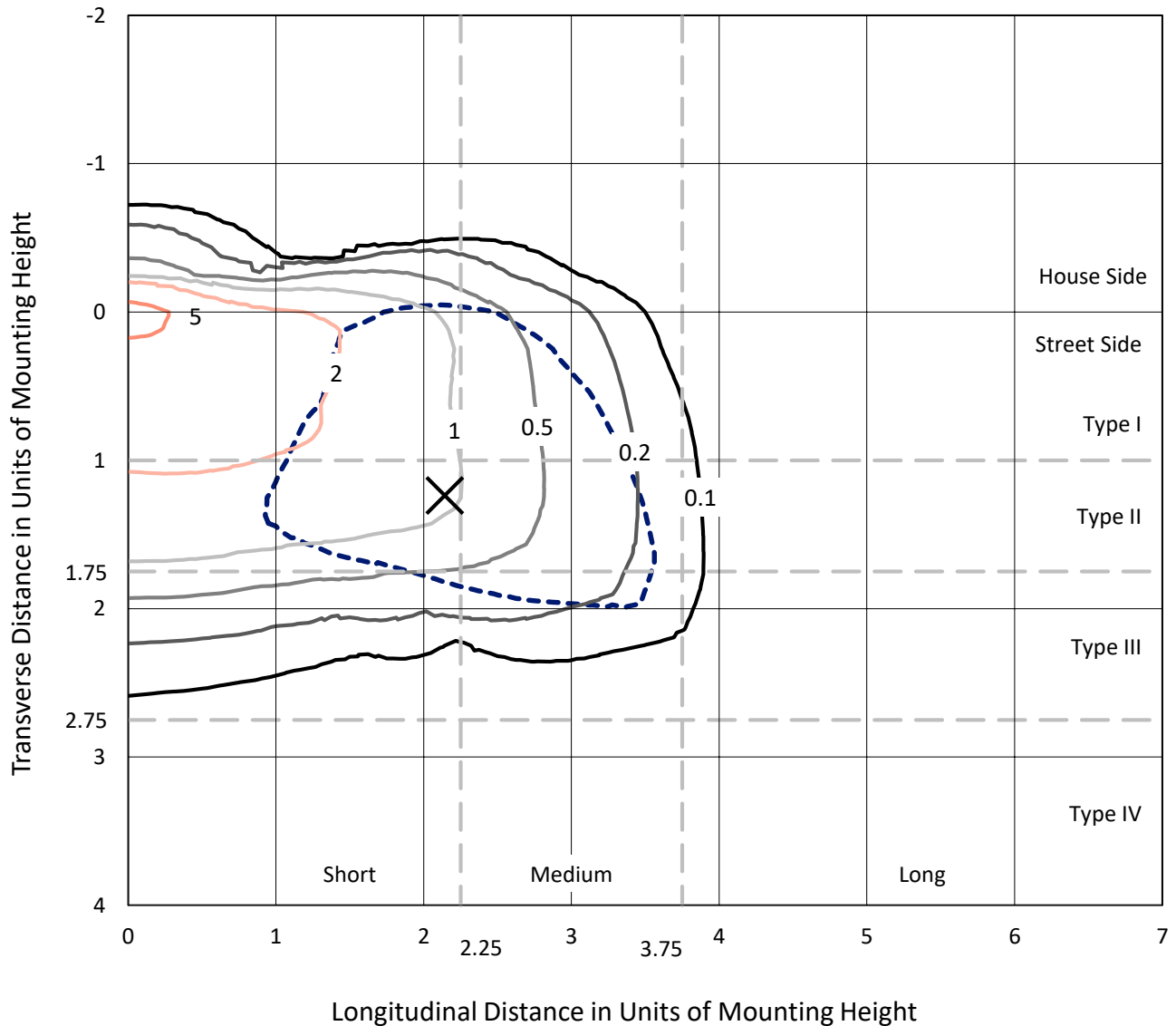


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

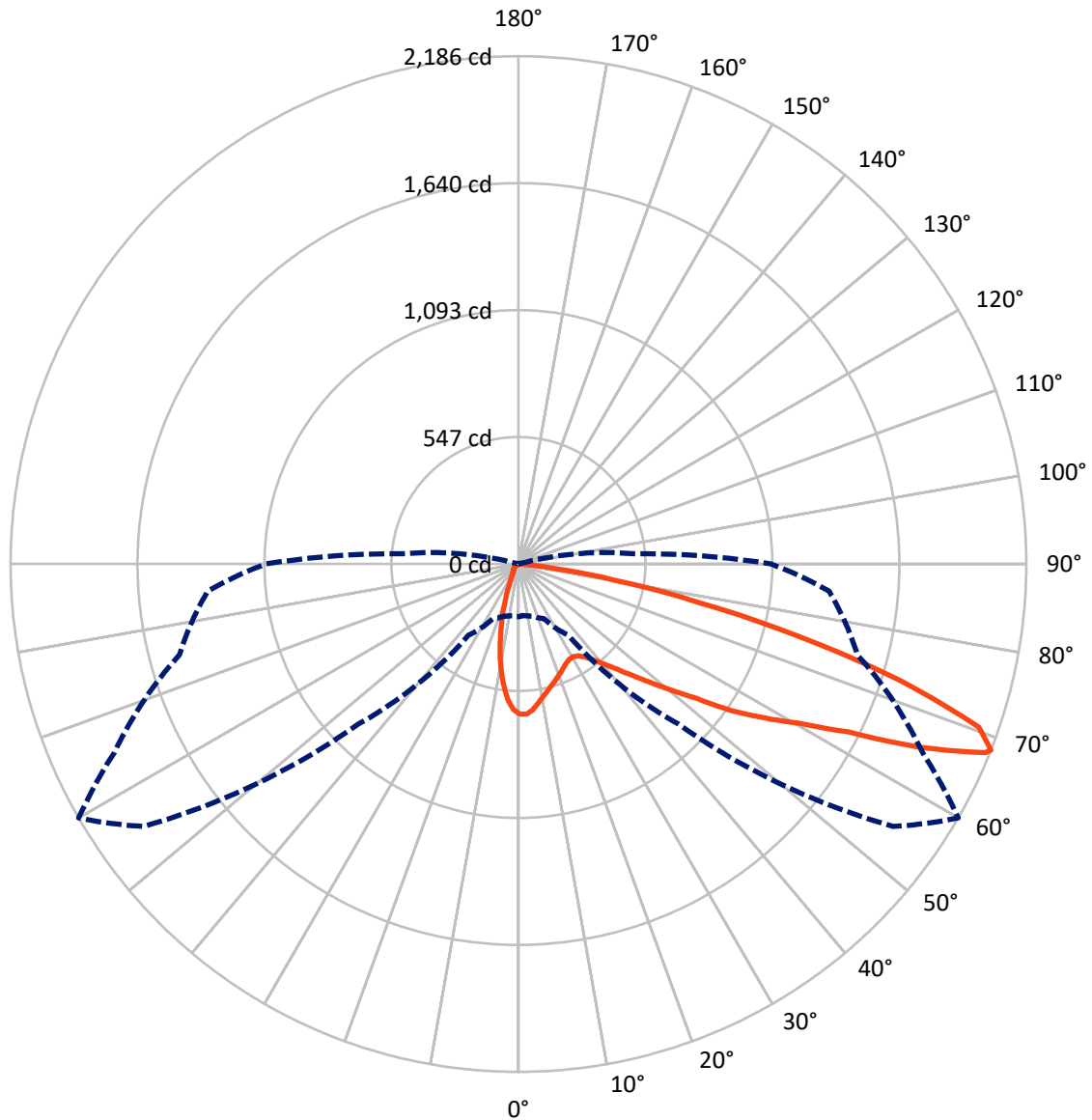


Based on 10 foot mounting height. Maximum calculated value = 6.5 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	236.0	0.0	236.0
	% Fixture	11.2	0.0	11.2
Street Side	Lumens	1875.0	0.0	1875.0
	% Fixture	88.8	0.0	88.8
Total	Lumens	2111.0	0.0	2111.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.4	2.5
10°-20°	106.9	5.1
20°-30°	140.8	6.7
30°-40°	194.3	9.2
40°-50°	294.5	14.0
50°-60°	475.3	22.5
60°-70°	564.6	26.7
70°-80°	266.1	12.6
80°-90°	15.9	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°	2111.0	100.0
0°-180°	2111.0	100.0



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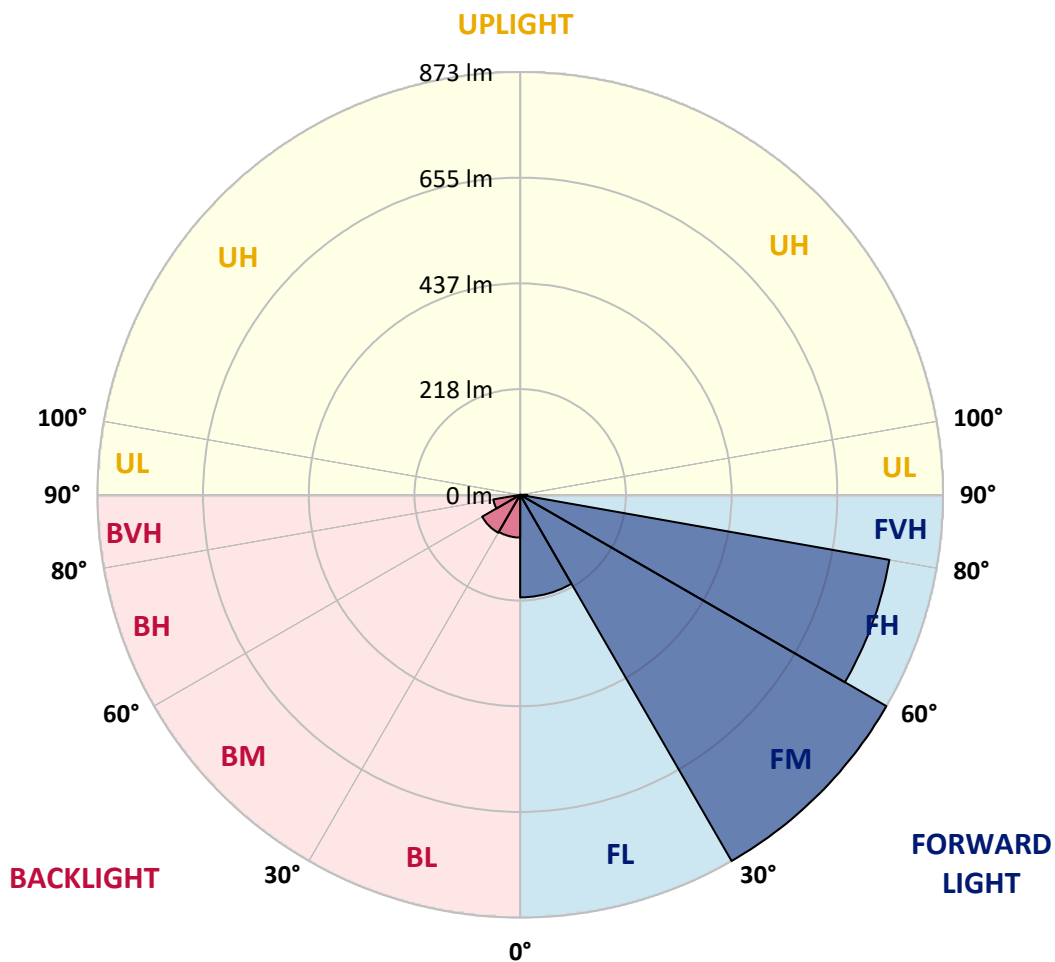
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	211.9	10.0			
FM	(30°-60°)	873.4	41.4			
FH	(60°-80°)	774.5	36.7			G1/1800
FVH	(80°-90°)	15.2	0.7			G1/100
BL	(0°-30°)	88.3	4.2	B0/110		
BM	(30°-60°)	90.7	4.3	B0/220		
BH	(60°-80°)	56.3	2.7	B0/110		G0/110
BVH	(80°-90°)	0.7	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°	60°	65°	75°	85°
0°	646.2	646.2	646.2	646.2	646.2	646.2	646.2	646.2	646.2	646.2	646.2
2.5°	640.4	639.0	642.9	644.0	645.1	647.2	646.9	647.2	647.6	646.9	642.6
5°	596.7	599.2	602.8	607.5	612.1	622.9	627.2	631.5	634.3	636.5	632.5
7.5°	553.7	558.8	561.6	570.2	577.4	588.5	597.8	605.3	612.5	620.4	616.4
10°	519.4	521.1	523.7	531.5	542.3	559.1	571.3	580.6	589.2	602.5	599.2
12.5°	485.7	486.8	491.8	500.4	511.5	532.3	548.4	559.1	568.8	585.3	585.6
15°	461.0	461.3	464.6	472.4	485.3	507.5	528.3	540.1	553.7	573.8	574.9
17.5°	444.9	444.5	445.2	450.2	462.4	483.5	508.6	522.6	538.7	564.5	565.6
20°	439.8	439.1	437.7	436.6	444.1	462.4	490.7	506.1	525.1	557.7	558.0
22.5°	444.1	442.7	439.5	433.4	435.5	447.4	471.0	489.6	512.9	554.1	551.6
25°	454.5	454.5	450.2	440.6	435.5	438.1	457.0	474.9	500.7	552.3	546.9
27.5°	471.7	471.0	465.3	455.2	445.9	439.1	448.4	465.3	491.8	554.5	544.8
30°	492.5	490.3	484.3	477.1	465.6	450.9	450.2	462.8	487.5	561.3	546.2
32.5°	512.2	512.2	509.7	502.9	491.8	472.4	461.3	471.4	492.9	572.4	550.9
35°	536.6	536.2	536.9	534.4	524.7	504.3	486.4	491.4	509.3	591.0	562.0
37.5°	555.9	556.3	562.3	566.6	562.3	540.8	522.2	522.2	537.3	618.9	581.0
40°	574.9	575.6	587.1	599.6	600.7	583.5	565.6	565.2	573.8	653.3	610.3
42.5°	592.1	594.9	611.4	632.9	645.4	634.0	620.7	616.4	620.7	705.3	658.0
45°	610.3	616.1	639.0	670.2	690.6	690.9	685.9	680.9	683.0	763.6	721.7
47.5°	634.0	640.4	669.1	707.4	746.1	756.1	760.8	759.0	753.2	837.4	804.1
50°	672.3	678.4	705.3	748.2	801.2	837.4	850.0	852.1	844.6	919.1	897.6
52.5°	737.5	741.1	766.1	800.2	859.6	927.3	960.3	960.6	943.8	1014.7	998.6
55°	807.3	816.6	846.0	885.4	946.7	1022.6	1105.0	1113.9	1062.0	1098.5	1072.4
57.5°	808.4	817.4	866.1	941.7	1069.9	1170.5	1244.0	1250.4	1192.7	1165.9	1141.9
60°	723.2	727.8	795.5	906.2	1113.9	1370.0	1402.3	1392.6	1284.4	1235.4	1228.9
62.5°	510.4	512.6	592.8	738.6	1016.5	1465.3	1643.3	1591.4	1414.8	1337.8	1359.3
65°	321.3	320.2	353.5	469.9	756.1	1371.5	1941.3	1903.4	1654.4	1466.0	1461.0
67.5°	237.1	231.4	240.3	276.5	432.0	1076.7	1996.1	2167.3	1882.6	1519.4	1372.9
68°	227.4	222.4	231.7	259.7	373.6	974.6	1969.6	2186.3	1918.8	1510.8	1342.8
70°	193.1	188.4	196.3	217.4	260.0	632.5	1737.9	2102.1	1951.7	1437.7	1183.4
72.5°	137.2	139.7	160.5	186.6	220.3	324.5	1279.8	1726.4	1678.8	1278.7	900.5
75°	81.3	86.0	113.2	150.4	202.4	214.2	825.6	1255.1	1231.8	885.4	487.8
77.5°	28.7	30.4	56.2	100.3	166.9	169.8	459.9	789.1	733.9	361.8	144.0
80°	10.4	10.4	20.8	55.9	107.8	129.7	244.3	421.2	289.8	93.8	39.8
82.5°	1.8	1.8	4.7	19.0	47.6	69.1	113.5	149.7	86.0	20.8	19.7
85°	0.0	0.0	0.0	0.0	0.7	0.7	33.3	33.7	15.8	2.9	8.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.4	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°	646.2	646.2	646.2	646.2	646.2	646.2	646.2	646.2	646.2	646.2	646.2
2.5°	640.8	640.1	636.1	629.0	622.9	612.8	611.1	601.4	597.8	594.9	597.8
5°	629.7	625.7	612.5	596.4	574.5	548.7	533.7	512.9	508.6	497.2	504.0
7.5°	611.4	602.5	577.7	543.0	502.9	463.5	433.4	404.4	379.7	371.1	368.6
10°	592.1	579.5	538.0	484.3	426.2	365.7	320.9	279.0	255.7	233.9	233.2
12.5°	573.8	554.8	494.6	419.8	338.8	266.8	208.8	164.8	137.2	122.1	126.1
15°	559.1	533.7	450.9	355.3	252.9	171.9	118.2	89.9	80.2	75.6	76.3
17.5°	544.8	511.1	408.7	288.0	180.2	106.0	76.7	67.0	64.1	63.0	62.3
20°	531.9	489.3	364.3	227.1	118.9	73.4	63.0	59.8	58.7	58.0	58.0
22.5°	519.0	466.3	319.9	168.3	81.3	60.2	56.6	55.2	54.4	53.4	53.4
25°	507.2	444.1	275.4	117.8	62.3	53.7	51.2	49.8	48.4	47.3	47.3
27.5°	498.2	427.3	234.2	83.5	52.3	48.4	45.8	43.3	41.5	40.1	40.1
30°	492.5	410.8	194.5	63.0	46.6	43.0	39.8	36.5	33.7	31.9	31.5
32.5°	489.3	397.2	157.6	51.6	41.5	37.6	33.7	30.1	26.9	24.7	24.7
35°	490.7	386.5	120.7	43.7	37.6	33.0	28.7	24.4	21.5	19.7	19.3
37.5°	500.0	380.4	89.9	38.7	33.7	28.7	24.4	20.1	17.2	15.8	15.4
40°	517.6	381.8	68.4	35.1	30.8	25.1	20.1	16.5	14.0	12.5	12.5
42.5°	553.0	392.2	54.1	32.2	27.6	21.5	16.8	13.6	11.5	10.4	10.0
45°	599.9	411.9	44.4	29.7	24.4	18.3	14.3	11.5	9.3	8.2	8.2
47.5°	670.9	443.4	38.3	27.2	21.1	15.4	11.8	9.3	7.2	6.4	6.1
50°	752.9	487.5	33.7	24.4	18.6	12.9	10.0	7.2	5.7	4.7	4.7
52.5°	836.7	536.6	30.4	21.8	16.1	11.1	7.9	5.4	3.9	3.2	3.2
55°	913.7	577.7	27.2	19.7	13.6	9.3	6.4	4.3	2.9	2.1	2.1
57.5°	988.2	615.4	23.6	17.2	11.1	7.5	5.0	3.2	2.1	1.4	1.4
60°	1081.7	664.1	20.4	14.7	9.0	6.1	3.9	2.5	1.4	1.1	0.7
62.5°	1194.5	699.5	17.2	11.8	7.2	4.7	2.9	1.8	1.1	0.4	0.4
65°	1236.1	652.6	14.3	9.7	5.7	3.6	2.1	1.4	0.7	0.4	0.4
67.5°	1120.0	525.8	11.5	7.5	4.3	2.5	1.8	1.1	0.7	0.4	0.4
68°	1087.8	500.0	11.1	7.2	3.9	2.5	1.4	1.1	0.4	0.4	0.0
70°	918.4	401.5	9.0	5.4	3.2	2.1	1.4	0.7	0.4	0.4	0.0
72.5°	680.9	276.9	6.4	3.6	2.1	1.4	1.1	0.7	0.4	0.4	0.0
75°	359.3	107.8	5.0	2.9	1.8	1.4	1.1	1.1	0.7	0.4	0.4
77.5°	103.2	34.0	3.9	2.1	1.8	1.8	1.8	1.4	1.4	1.1	0.7
80°	30.1	11.1	2.5	1.4	1.8	1.8	2.1	1.8	1.8	1.4	1.4
82.5°	16.1	4.3	1.4	1.1	1.1	1.4	1.8	1.4	1.1	0.7	0.4
85°	6.8	1.4	1.1	0.7	0.7	0.7	0.7	0.7	0.7	0.4	0.4
87.5°	0.4	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
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)