

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: P400937

Luminaire Tested: **ENT-SA1A-735-U-T2-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400937
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-12)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1A-735-U-T2-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3500K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1943 lumens
Efficiency: N/A
Efficacy: 96.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B0 - 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

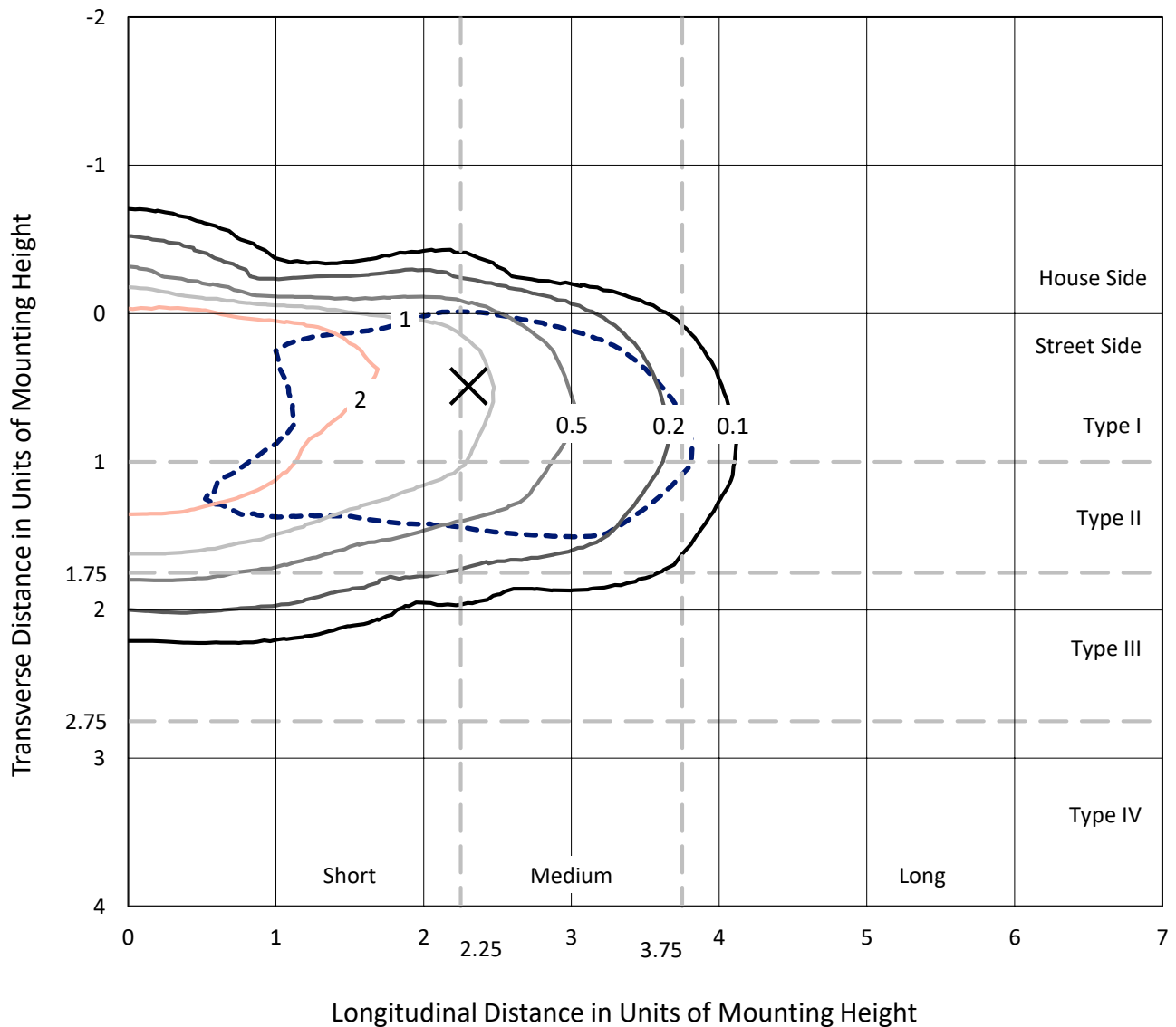


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

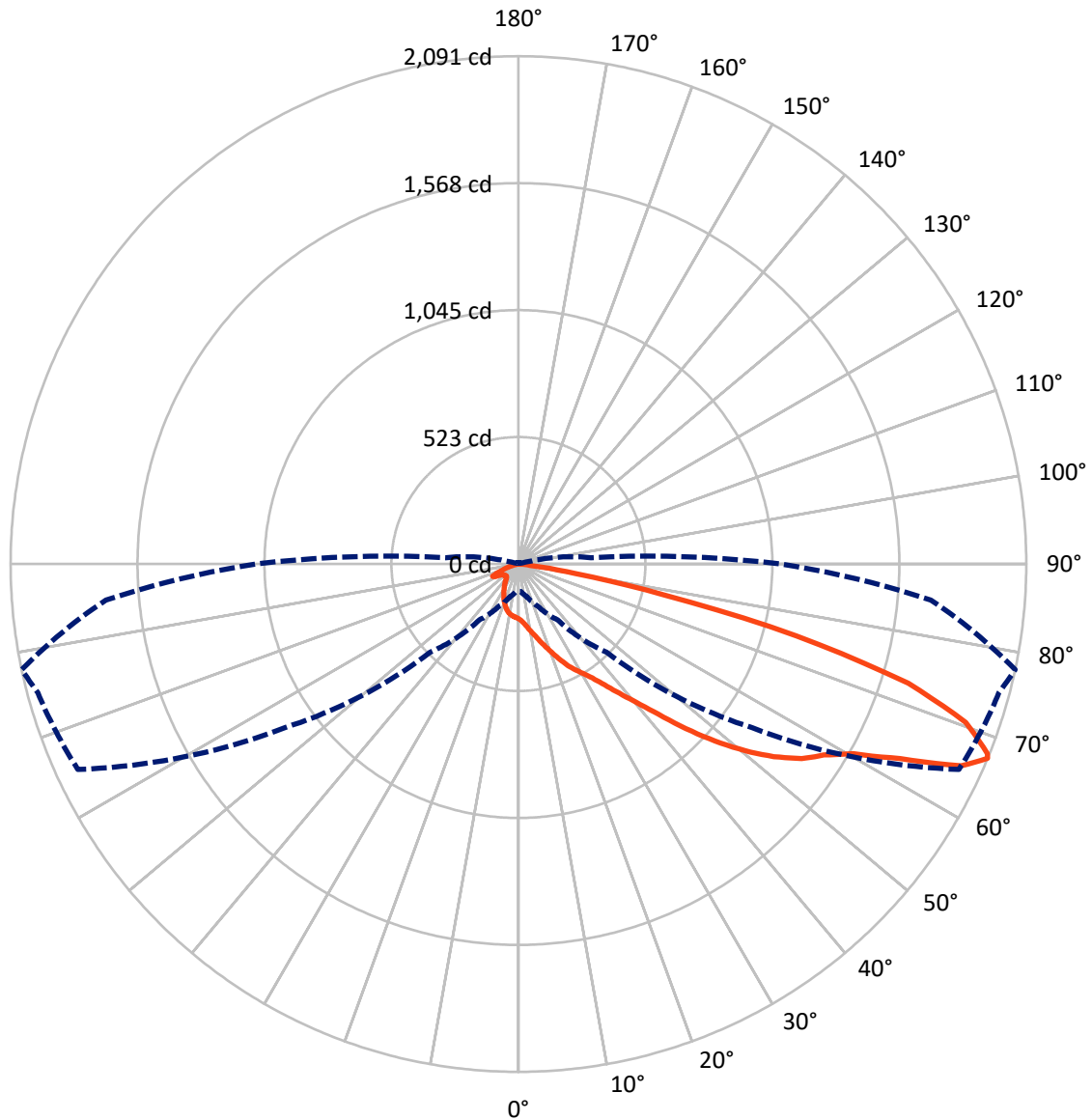


Based on 10 foot mounting height. Maximum calculated value = 3.5 fc
 Type II - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral - - - Horizontal Cone Through 67-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	137.1	0.0	137.1
	% Fixture	7.1	0.0	7.1
Street Side	Lumens	1805.9	0.0	1805.9
	% Fixture	92.9	0.0	92.9
Total	Lumens	1943.0	0.0	1943.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.7	1.1
10°-20°	62.3	3.2
20°-30°	110.0	5.7
30°-40°	194.0	10.0
40°-50°	333.5	17.2
50°-60°	502.0	25.8
60°-70°	494.0	25.4
70°-80°	215.9	11.1
80°-90°	9.6	0.5
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°	1943.0	100.0
0°-180°	1943.0	100.0



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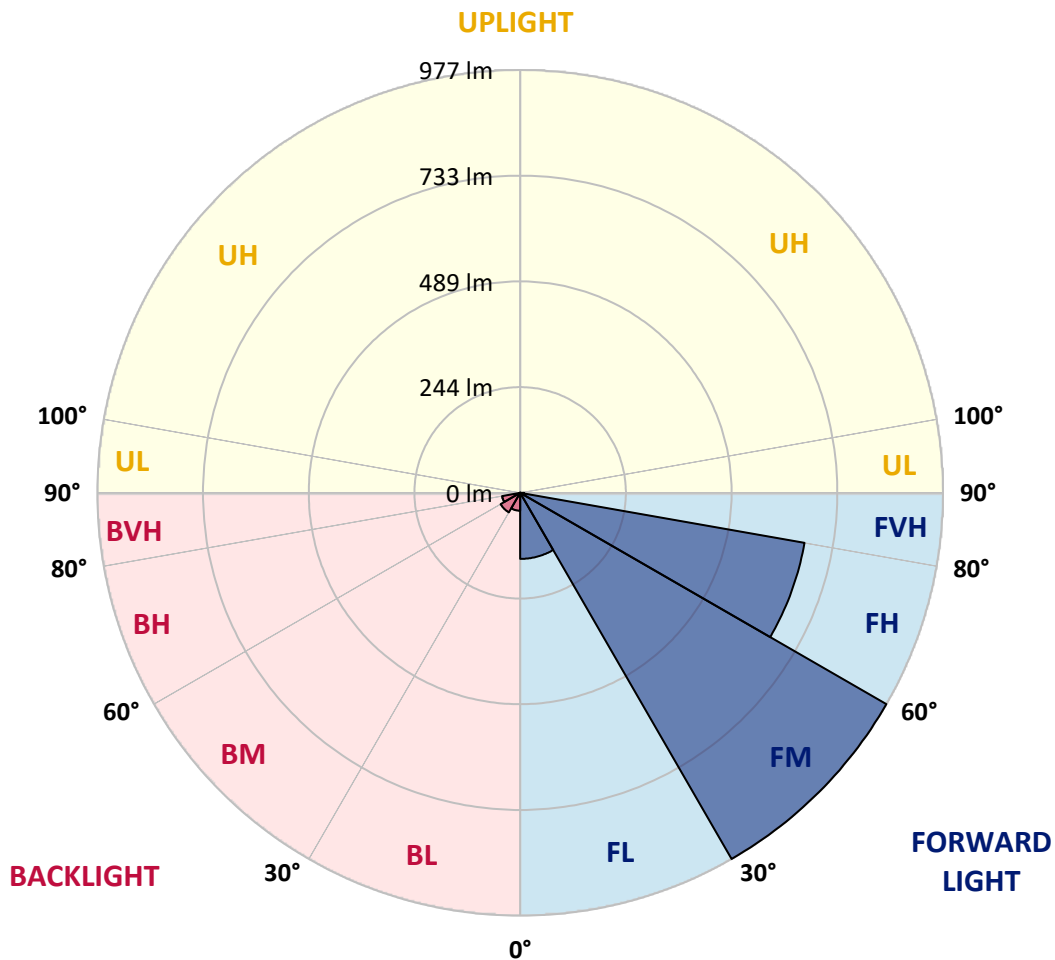
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	152.7	7.9			
FM (30°-60°)	977.4	50.3			
FH (60°-80°)	667.3	34.3			G1/1800
FVH (80°-90°)	8.6	0.4			G0/10
BL (0°-30°)	41.4	2.1	B0/110		
BM (30°-60°)	52.2	2.7	B0/220		
BH (60°-80°)	42.5	2.2	B0/110		G0/110
BVH (80°-90°)	1.0	0.1			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 II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	225.6	225.6	225.6	225.6	225.6	225.6	225.6	225.6	225.6	225.6	225.6
2.5°	258.8	259.9	258.4	257.4	254.4	250.8	247.1	241.7	235.8	233.6	230.0
5°	290.6	290.6	290.6	287.6	285.1	278.2	269.8	261.4	250.4	246.4	238.0
7.5°	307.4	307.7	308.8	308.8	307.4	302.6	293.5	284.0	267.6	262.1	248.6
10°	309.2	310.6	313.6	317.9	321.2	323.8	318.3	308.1	288.4	281.8	262.1
12.5°	304.4	305.2	309.9	317.9	328.5	339.1	339.5	333.3	311.4	302.3	278.5
15°	293.5	294.6	301.5	314.3	330.7	349.7	360.7	358.8	338.4	327.8	296.8
17.5°	276.0	277.1	285.8	304.8	328.9	356.6	380.0	389.1	365.0	354.8	315.4
20°	275.2	275.6	278.9	293.1	321.6	360.7	399.0	420.5	397.5	386.6	337.3
22.5°	322.0	319.0	311.7	302.6	315.0	359.6	416.1	453.7	437.7	420.5	362.5
25°	374.2	375.3	367.2	345.7	330.0	357.7	429.3	491.3	475.3	458.1	388.4
27.5°	428.9	427.1	420.2	400.4	374.2	370.9	438.8	521.6	511.4	490.6	411.4
30°	482.2	480.8	475.6	455.6	427.1	404.8	446.1	549.0	545.7	522.7	430.0
32.5°	543.2	545.7	539.2	512.9	478.2	450.8	461.8	577.9	587.3	559.2	449.4
35°	614.0	614.0	600.5	576.4	540.6	502.3	493.2	609.6	640.3	610.0	480.0
37.5°	672.4	677.1	669.1	634.4	600.9	560.7	541.0	648.7	705.6	675.0	521.3
40°	718.4	726.4	726.8	692.5	661.4	635.2	607.8	703.8	787.8	748.3	570.6
42.5°	761.1	762.6	768.8	749.1	718.0	711.1	683.0	769.1	890.3	844.0	636.3
45°	815.5	818.4	814.8	800.2	773.5	782.6	766.9	852.0	1005.7	966.6	713.6
47.5°	895.4	902.4	896.9	870.6	838.1	855.3	844.0	934.5	1136.0	1088.5	797.6
50°	970.3	975.7	981.6	973.2	940.7	924.3	910.4	1021.7	1247.7	1207.5	880.1
52.5°	978.3	983.4	1015.5	1045.1	1066.6	1023.6	980.1	1110.1	1351.0	1317.4	955.7
55°	926.1	929.4	983.0	1041.5	1140.4	1155.0	1082.7	1197.3	1437.5	1414.5	1006.4
57.5°	780.8	794.7	871.0	960.4	1122.1	1233.1	1228.4	1298.8	1493.7	1483.1	1071.8
60°	512.9	528.2	619.5	754.9	987.8	1212.3	1388.2	1451.0	1572.6	1584.3	1186.4
62.5°	265.7	283.6	363.9	484.0	715.8	1055.7	1442.6	1701.1	1723.7	1763.5	1390.8
65°	151.9	155.5	195.7	283.6	443.2	756.0	1377.3	1948.6	1922.7	2003.3	1651.8
67°	112.8	112.8	140.9	192.7	280.7	514.0	1174.7	2000.8	2047.9	2090.6	1704.4
67.5°	101.1	106.6	130.7	177.8	251.9	455.9	1099.1	1986.9	2055.9	2082.5	1686.1
70°	69.4	73.0	93.8	127.4	169.7	237.3	720.6	1757.3	1980.7	1953.7	1528.0
72.5°	41.6	43.1	62.1	91.6	126.7	127.0	393.1	1333.8	1678.4	1678.1	1248.1
75°	25.9	27.4	36.5	61.3	88.7	79.6	181.8	907.5	1205.4	1182.0	836.3
77.5°	14.6	16.8	21.9	33.6	56.2	50.7	76.7	508.5	651.2	611.1	415.4
80°	5.8	6.9	12.4	16.1	31.8	30.3	31.4	178.9	263.6	237.6	139.1
82.5°	1.5	1.8	4.4	7.7	12.4	12.4	9.9	48.9	62.4	58.0	35.8
85°	0.0	0.0	0.4	0.4	0.4	0.7	2.6	5.5	6.6	7.7	5.8
87.5°	0.0	0.0	0.0	0.4	0.4	0.4	0.7	1.1	1.1	1.1	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°	225.6	225.6	225.6	225.6	225.6	225.6	225.6	225.6	225.6	225.6	225.6
2.5°	227.1	224.5	219.4	213.9	208.4	204.1	200.4	195.3	194.6	194.6	194.6
5°	231.8	226.0	214.3	202.6	190.9	180.3	172.7	166.5	161.0	159.2	160.6
7.5°	238.7	228.1	207.7	187.3	169.0	154.0	143.1	134.3	130.3	128.1	126.3
10°	247.9	231.4	198.9	169.0	146.0	128.1	116.4	108.1	104.0	101.5	101.8
12.5°	257.7	234.0	188.0	149.3	123.7	107.3	97.5	90.5	84.0	79.9	81.0
15°	267.6	235.8	174.5	131.0	106.6	92.0	78.1	65.7	61.3	60.6	60.2
17.5°	278.5	235.4	159.5	113.9	92.0	71.5	57.7	56.2	55.9	55.9	55.5
20°	289.8	233.6	142.4	99.7	77.4	54.4	52.2	51.5	50.4	50.0	49.6
22.5°	302.3	230.3	126.7	87.2	57.7	49.6	46.7	44.5	42.7	41.6	42.0
25°	313.6	224.1	111.3	75.6	49.3	44.5	40.5	37.2	35.4	33.9	34.3
27.5°	321.2	213.2	98.2	61.0	45.3	39.4	34.7	31.4	28.8	27.7	27.7
30°	322.0	197.5	86.5	50.0	41.2	34.7	29.6	25.9	24.5	23.7	23.4
32.5°	321.2	181.4	77.8	46.0	37.6	30.3	25.2	22.6	21.2	20.4	20.4
35°	324.9	165.0	69.7	42.3	33.6	26.6	22.3	19.7	18.6	17.9	17.9
37.5°	335.8	153.7	61.3	38.7	29.9	23.4	20.1	17.9	16.8	16.1	16.1
40°	350.8	144.2	51.1	35.0	26.3	21.2	18.3	16.4	15.0	14.2	14.2
42.5°	377.1	140.5	42.7	31.4	23.0	19.0	16.8	14.6	13.1	12.4	12.4
45°	416.1	142.4	39.1	28.1	20.8	17.2	15.0	12.8	11.3	11.0	11.0
47.5°	459.2	150.0	36.5	25.2	19.0	16.1	13.5	11.3	9.9	9.5	9.5
50°	507.4	162.1	34.3	22.3	17.2	14.6	12.0	9.9	8.8	8.4	8.4
52.5°	553.4	177.4	32.1	20.1	16.1	13.1	10.6	8.8	8.0	7.7	7.7
55°	588.4	187.3	30.3	18.6	15.0	12.0	9.5	8.4	7.3	6.9	6.9
57.5°	637.4	203.7	28.1	16.8	13.5	11.0	8.8	7.7	6.6	6.6	6.6
60°	736.6	247.9	24.8	15.3	12.0	9.9	8.4	6.9	6.2	5.8	5.8
62.5°	915.5	320.9	21.5	14.2	10.6	8.8	7.3	6.2	5.5	4.7	4.7
65°	1087.8	351.2	18.3	12.4	9.5	7.7	6.6	5.5	4.0	3.3	3.3
67°	1078.3	300.4	15.3	10.6	8.0	6.9	5.5	4.4	2.9	1.8	1.8
67.5°	1052.8	279.6	15.0	10.2	7.7	6.6	5.5	4.0	2.6	1.5	1.5
70°	894.7	195.7	11.7	8.0	6.6	5.8	4.4	2.9	1.5	0.7	0.7
72.5°	726.8	155.1	9.1	6.6	5.5	4.4	3.7	1.8	1.1	0.4	0.4
75°	514.0	95.3	8.0	5.8	4.4	3.3	2.9	1.8	1.1	0.7	0.4
77.5°	253.7	43.8	6.6	5.1	4.0	3.3	2.6	2.2	1.8	1.5	0.7
80°	74.5	14.2	4.4	3.7	3.7	3.3	2.9	2.6	2.2	1.8	1.1
82.5°	16.8	5.1	1.5	1.8	2.6	2.6	2.6	1.8	1.5	0.7	0.4
85°	2.2	1.1	1.1	1.1	1.5	1.5	1.1	0.7	0.7	0.0	0.0
87.5°	0.7	0.7	0.7	1.1	1.1	1.1	0.7	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

(END OF REPORT)