

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: P401391

Luminaire Tested: **ENT-SA1C-827-U-T4FT-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401391
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-16)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1C-827-U-T4FT-HSS
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 2700K, 615mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV FORWARD
THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2349 lumens
Efficiency: N/A
Efficacy: 70.5 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

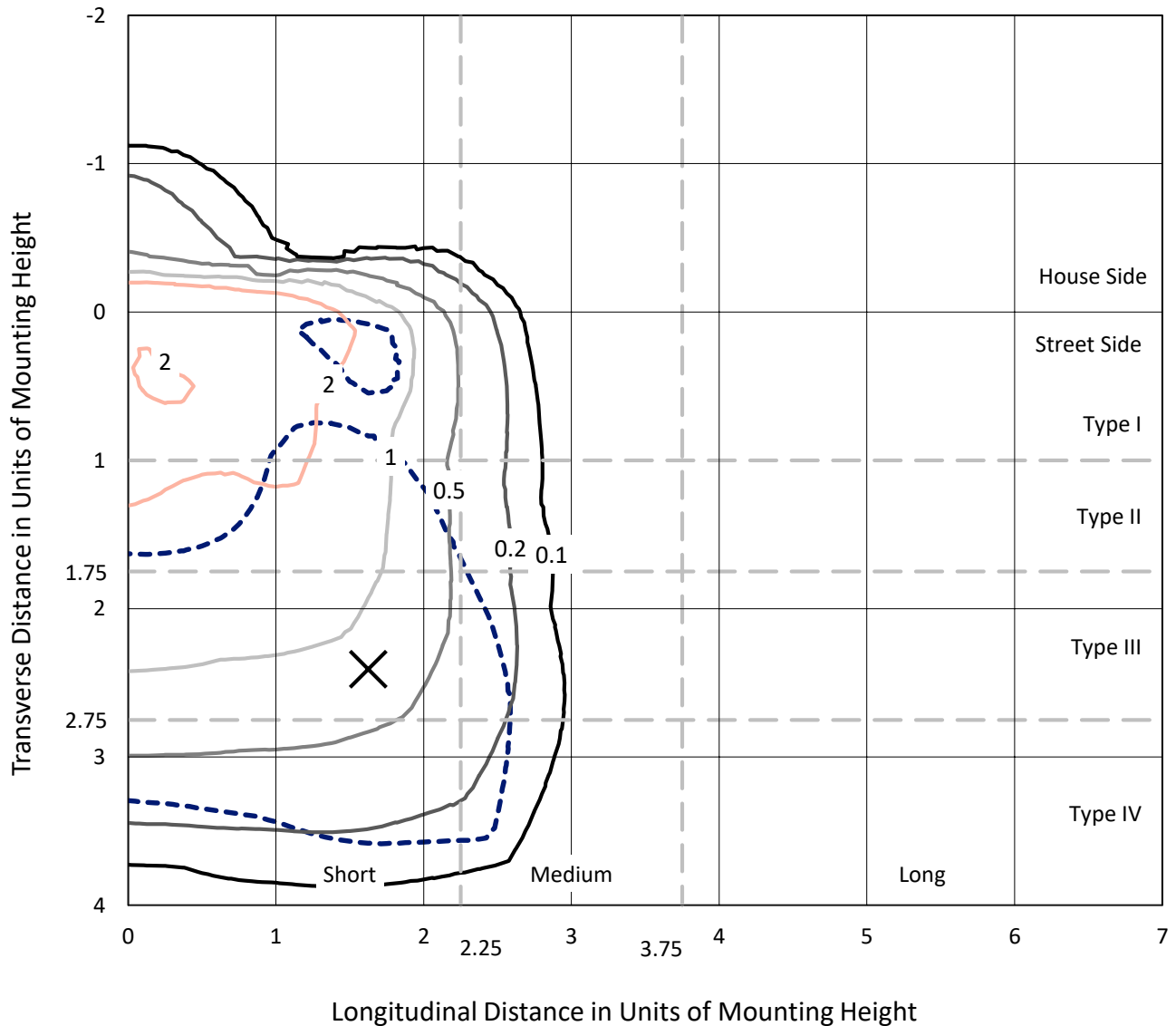
Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

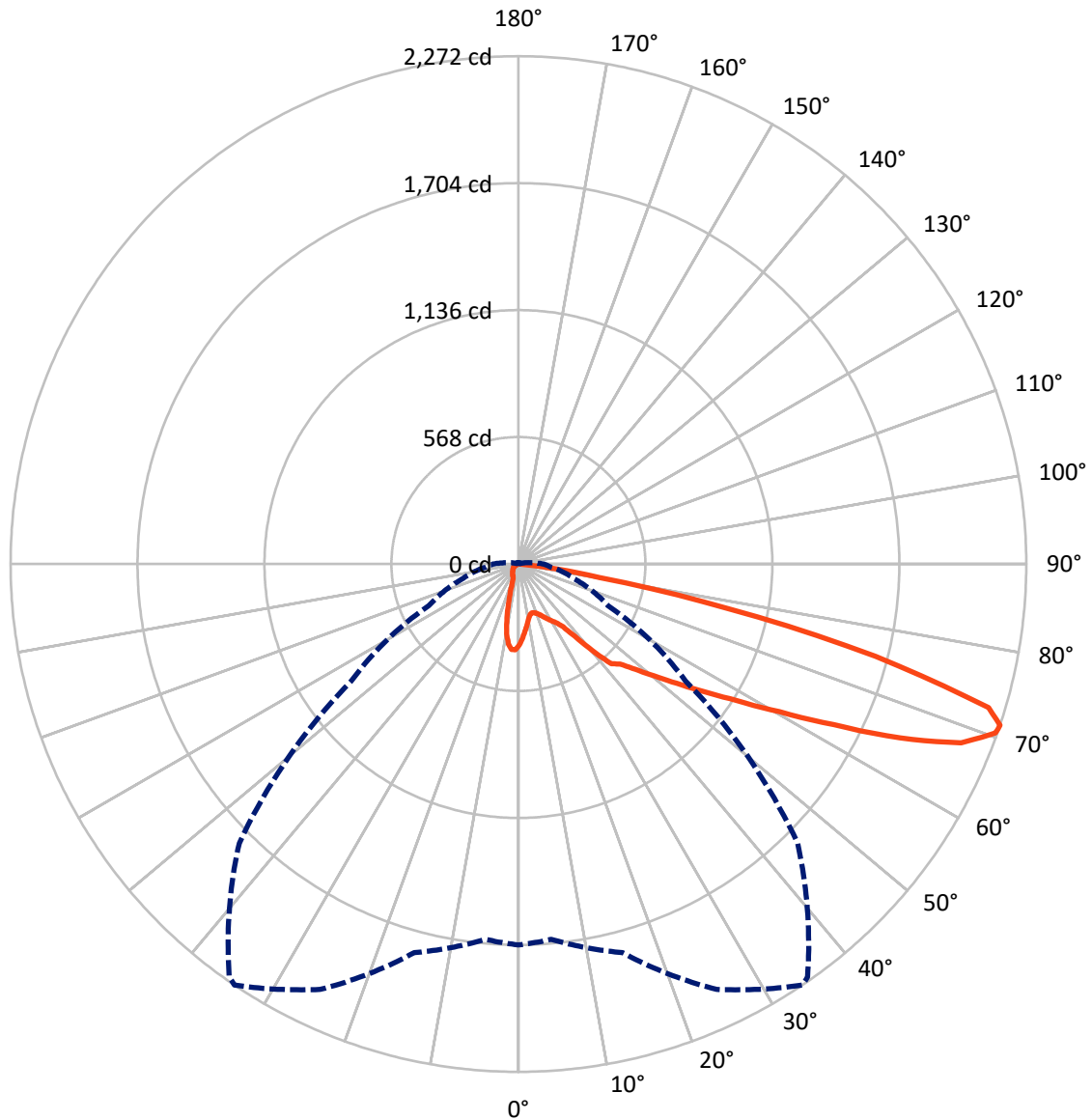
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.6 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 34-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	259.7	0.0	259.7
	% Fixture	11.1	0.0	11.1
Street Side	Lumens	2089.3	0.0	2089.3
	% Fixture	88.9	0.0	88.9
Total	Lumens	2349.0	0.0	2349.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.1	1.4
10°-20°	73.5	3.1
20°-30°	109.7	4.7
30°-40°	183.3	7.8
40°-50°	331.0	14.1
50°-60°	525.2	22.4
60°-70°	705.8	30.0
70°-80°	374.5	15.9
80°-90°	13.8	0.6
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°	2349.0	100.0
0°-180°	2349.0	100.0

Coefficient of Utilization



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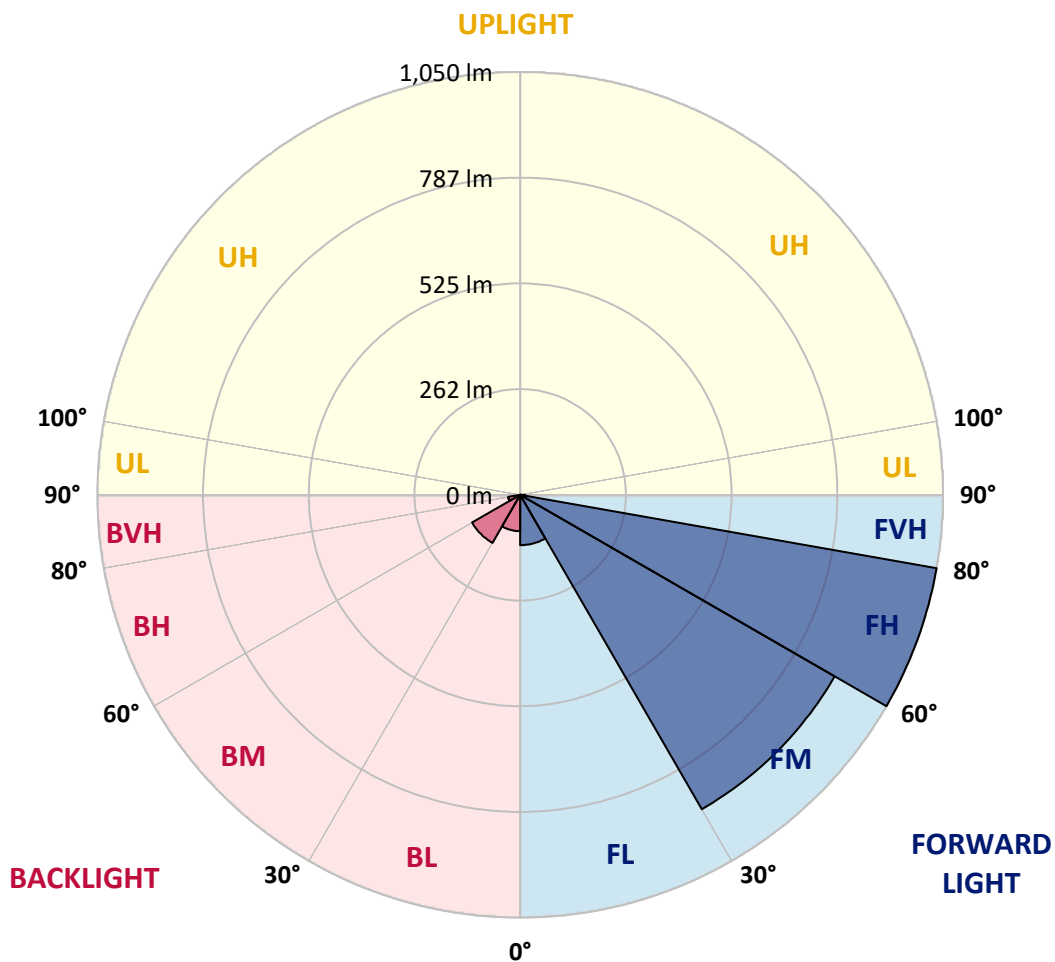
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	125.0	5.3			
FM	(30°-60°)	901.7	38.4			
FH	(60°-80°)	1050.0	44.7			G1/1800
FVH	(80°-90°)	12.6	0.5			G1/100
BL	(0°-30°)	90.3	3.8	B0/110		
BM	(30°-60°)	137.8	5.9	B0/220		
BH	(60°-80°)	30.3	1.3	B0/110		G0/110
BVH	(80°-90°)	1.3	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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0
2.5°	331.4	327.2	331.0	332.8	334.3	336.1	339.0	344.2	349.8	356.4	360.2
5°	289.0	291.4	292.8	298.0	303.1	304.1	313.0	323.4	336.6	349.8	361.1
7.5°	254.6	254.6	258.8	266.8	275.3	276.3	291.8	305.5	324.4	344.6	363.0
10°	227.2	228.2	231.5	239.5	250.3	252.7	270.1	289.0	312.6	339.0	364.9
12.5°	218.3	217.8	217.3	223.0	232.0	234.3	253.6	276.3	304.1	336.1	369.6
15°	223.9	222.5	219.2	220.2	225.8	228.2	245.2	267.8	298.9	335.7	377.6
17.5°	232.9	231.0	224.9	223.0	229.1	231.5	245.6	265.4	297.0	338.0	387.1
20°	243.7	241.9	232.4	230.1	236.2	238.1	252.7	269.7	298.0	342.7	399.8
22.5°	259.3	256.9	243.3	240.4	246.6	248.5	264.0	279.6	303.6	351.2	417.2
25°	278.2	275.3	257.9	254.1	261.7	263.5	279.1	293.7	313.0	362.6	439.4
27.5°	298.9	295.6	277.2	269.7	278.2	281.0	295.6	311.6	326.7	376.7	468.6
30°	317.8	314.0	296.1	287.6	296.1	297.5	314.9	332.8	348.9	400.7	511.5
32.5°	370.1	360.7	332.8	308.3	314.0	316.8	338.0	366.3	390.4	429.5	566.7
35°	448.4	440.8	406.9	364.4	344.6	345.6	372.9	408.8	419.6	463.0	635.1
37.5°	523.8	517.2	487.5	448.4	410.6	412.1	416.8	451.2	463.9	521.0	718.5
40°	606.3	595.9	572.3	535.1	509.2	503.0	479.9	504.0	531.8	594.0	809.5
42.5°	644.5	634.6	610.1	612.4	609.6	598.8	553.0	586.5	617.6	700.1	909.9
45°	707.7	688.3	637.9	641.7	637.9	638.8	650.1	698.7	725.6	812.3	1023.5
47.5°	766.1	744.0	691.2	687.4	703.9	712.4	773.2	832.1	834.5	909.9	1112.6
50°	819.4	803.4	754.8	755.3	785.4	794.9	916.5	970.3	922.6	984.9	1182.4
52.5°	890.1	867.5	824.1	839.7	886.8	895.3	1059.4	1091.4	986.3	1052.8	1237.1
55°	955.6	943.4	911.3	934.4	1006.6	1028.7	1204.6	1184.8	1031.1	1113.1	1263.5
57.5°	1063.1	1051.3	1042.9	1054.6	1151.3	1179.1	1351.7	1250.8	1066.0	1153.2	1251.2
60°	1242.3	1230.5	1205.0	1215.9	1341.8	1355.9	1467.2	1317.7	1079.6	1164.5	1203.2
62.5°	1463.4	1448.8	1407.8	1457.7	1584.1	1583.6	1586.9	1353.1	1062.2	1131.0	1076.3
65°	1662.8	1642.6	1621.3	1723.2	1876.9	1855.7	1714.2	1357.3	1007.0	969.3	832.6
67.5°	1808.0	1800.0	1811.8	1970.7	2136.2	2115.0	1837.7	1298.9	838.3	699.6	514.4
70°	1802.4	1785.9	1860.8	2114.5	2264.9	2247.4	1832.6	1067.4	559.1	370.6	215.5
71°	1704.8	1685.9	1800.0	2100.3	2272.4	2255.9	1766.6	913.2	442.2	261.7	141.9
72.5°	1317.3	1374.3	1555.8	1949.0	2199.8	2178.6	1586.9	699.2	280.0	151.3	71.2
75°	557.3	588.4	923.6	1391.3	1650.1	1639.3	1069.7	322.9	128.7	68.4	27.3
77.5°	143.3	141.4	282.9	596.9	960.8	977.8	493.1	110.8	66.9	48.6	15.6
80°	27.8	30.2	80.6	207.4	366.8	376.7	160.8	48.6	44.8	38.2	8.0
82.5°	2.8	3.3	14.1	64.1	123.1	118.8	35.4	18.4	27.3	25.9	3.8
85°	0.0	0.0	0.5	0.5	0.5	0.5	0.5	1.9	6.6	7.1	0.9
87.5°	0.0	0.0	0.5	0.5	0.0	0.0	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°	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0
2.5°	363.0	367.3	372.0	375.3	378.6	379.1	383.8	382.8	384.2	384.7	384.2
5°	367.3	372.9	381.9	386.6	388.5	385.2	384.2	379.1	377.2	374.8	372.5
7.5°	372.0	379.1	389.4	391.8	385.2	372.9	363.0	350.3	338.5	331.0	331.9
10°	377.2	386.1	394.6	388.5	371.5	347.5	319.6	291.4	266.4	256.9	260.2
12.5°	383.8	394.6	398.4	381.4	348.4	299.8	249.4	206.5	180.6	165.0	163.1
15°	393.7	404.5	400.3	370.1	311.6	235.7	173.0	129.7	104.7	96.6	92.4
17.5°	405.9	416.3	400.3	349.8	259.3	168.8	105.1	78.7	70.7	68.8	69.3
20°	421.0	430.9	398.4	319.2	199.9	103.7	70.2	65.1	65.1	65.1	64.6
22.5°	441.3	446.5	395.6	278.6	137.7	70.2	62.2	61.8	62.2	62.2	62.2
25°	465.8	464.9	390.4	230.1	86.7	59.9	59.4	59.4	59.9	60.3	60.3
27.5°	498.3	488.4	381.4	172.1	61.3	55.6	56.6	57.5	58.5	59.4	59.4
30°	543.6	519.5	366.8	116.4	51.9	51.4	53.3	56.1	57.5	58.5	58.5
32.5°	592.2	551.6	341.8	74.5	47.6	47.1	49.0	53.3	57.0	58.0	58.0
35°	653.4	586.0	304.6	53.7	44.8	43.8	45.7	49.5	55.2	58.0	58.0
37.5°	718.0	622.8	250.3	45.3	42.0	41.0	42.4	45.3	51.9	57.0	57.5
40°	786.9	655.3	188.1	42.0	39.1	38.7	39.1	42.0	47.1	54.2	55.6
42.5°	856.2	682.7	131.5	38.7	36.8	35.8	36.8	38.7	43.4	49.5	50.4
45°	932.5	712.8	87.7	35.8	34.9	33.9	34.9	36.3	39.6	42.9	43.4
47.5°	988.2	723.7	60.3	32.5	32.1	32.5	33.0	33.9	35.8	36.3	35.8
50°	1024.9	718.0	43.4	29.2	29.7	31.1	31.1	31.6	31.6	30.2	29.7
52.5°	1051.8	697.3	33.5	25.0	27.8	29.2	29.2	28.3	27.3	25.5	25.0
55°	1054.6	650.6	26.4	21.7	25.0	27.3	26.9	25.0	23.1	21.2	21.2
57.5°	1018.8	579.9	21.7	18.4	21.7	24.0	23.1	21.2	18.9	17.4	17.4
60°	960.8	507.3	18.4	15.6	17.9	20.3	18.9	17.4	15.1	13.7	13.7
62.5°	853.8	435.6	15.1	12.7	14.6	16.0	15.6	14.1	11.8	10.8	10.4
65°	654.4	331.4	11.3	9.9	11.3	13.2	12.3	10.8	9.4	8.0	7.5
67.5°	393.2	199.4	9.0	7.5	9.0	10.4	9.4	8.0	6.6	5.7	5.7
70°	166.4	85.3	7.1	5.7	6.6	8.0	7.5	6.6	5.2	4.7	4.7
71°	113.1	60.8	6.1	5.2	6.1	7.5	7.1	6.1	5.2	4.7	4.7
72.5°	58.0	31.1	5.2	4.2	5.7	6.6	6.6	5.7	4.7	4.7	4.7
75°	20.7	13.2	4.2	3.8	4.7	4.7	5.2	5.2	5.2	5.2	4.7
77.5°	11.8	8.0	3.8	3.8	3.8	4.2	5.2	5.7	6.1	6.1	5.7
80°	6.6	4.2	2.4	2.8	3.8	4.2	5.2	5.7	6.6	6.6	6.1
82.5°	3.3	1.4	0.5	1.4	2.4	3.8	4.2	4.7	5.7	5.2	5.2
85°	0.5	0.0	0.0	0.5	1.4	1.9	2.8	3.8	4.7	4.7	4.2
87.5°	0.0	0.0	0.0	0.0	0.5	0.9	1.4	2.4	3.3	3.8	3.3
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)