

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: P401154

Luminaire Tested: **ENT-SA1B-740-U-T4FT-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401154  
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-SA1B-740-U-T4FT-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 4000K, 450mA 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: 2428 lumens  
Efficiency: N/A  
Efficacy: 95.6 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

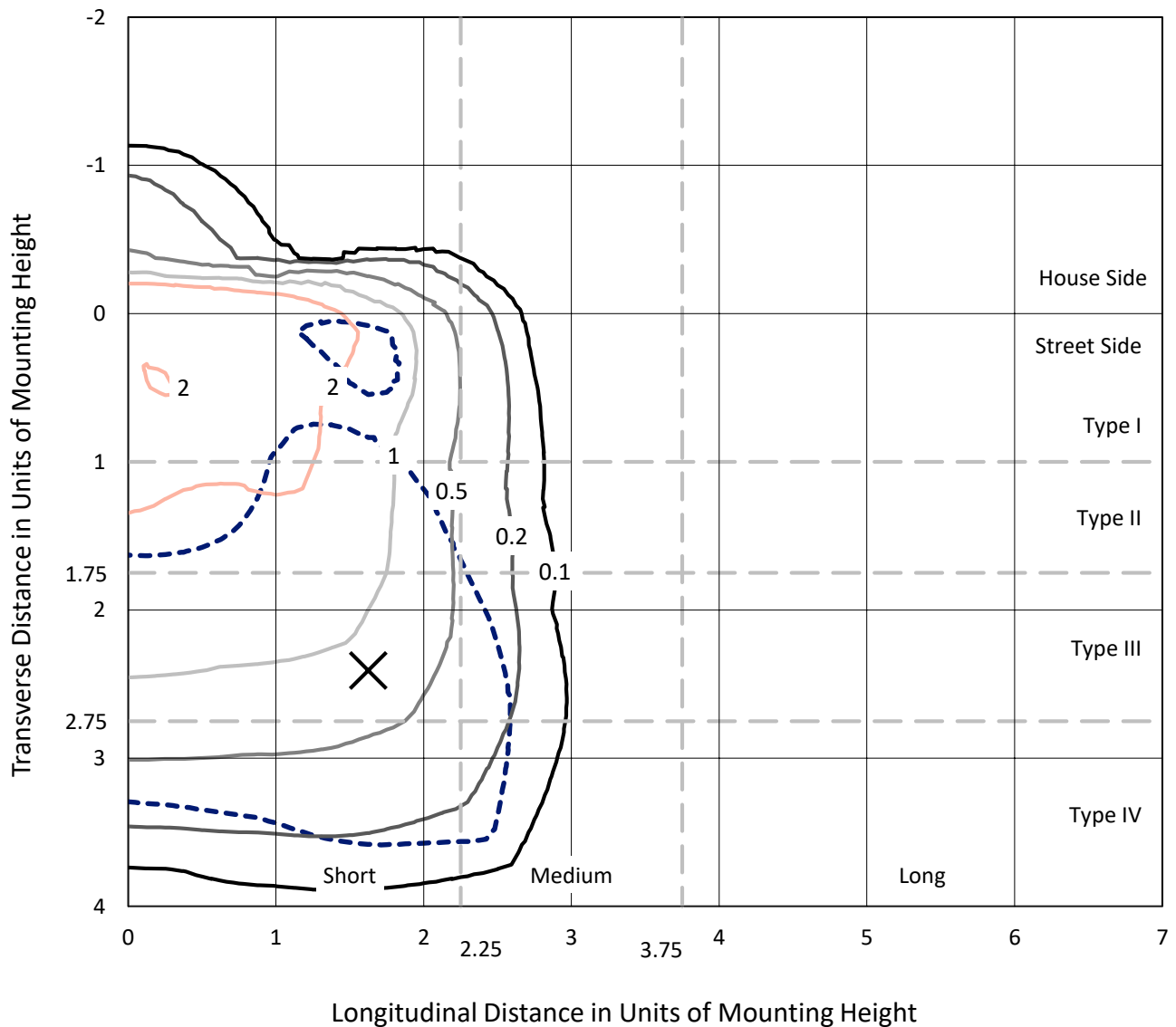
Input Watts (W): 25.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

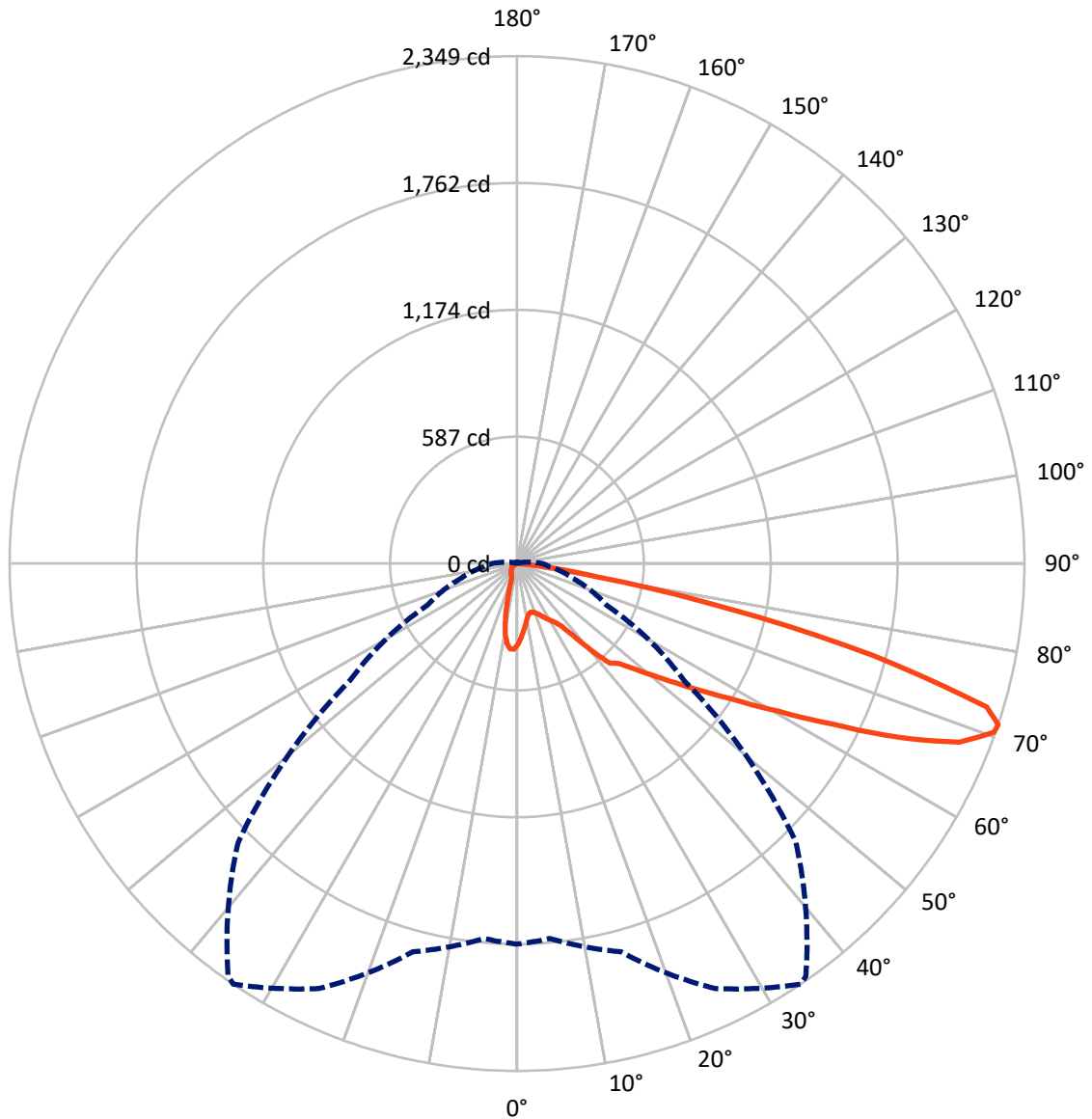
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.8 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
<b>House Side</b>	Lumens	268.5	0.0	268.5
	% Fixture	11.1	0.0	11.1
<b>Street Side</b>	Lumens	2159.5	0.0	2159.5
	% Fixture	88.9	0.0	88.9
<b>Total</b>	Lumens	2428.0	0.0	2428.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	33.2	1.4
10°-20°	76.0	3.1
20°-30°	113.4	4.7
30°-40°	189.5	7.8
40°-50°	342.2	14.1
50°-60°	542.9	22.4
60°-70°	729.5	30.0
70°-80°	387.1	15.9
80°-90°	14.3	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°	2428.0	100.0
0°-180°	2428.0	100.0



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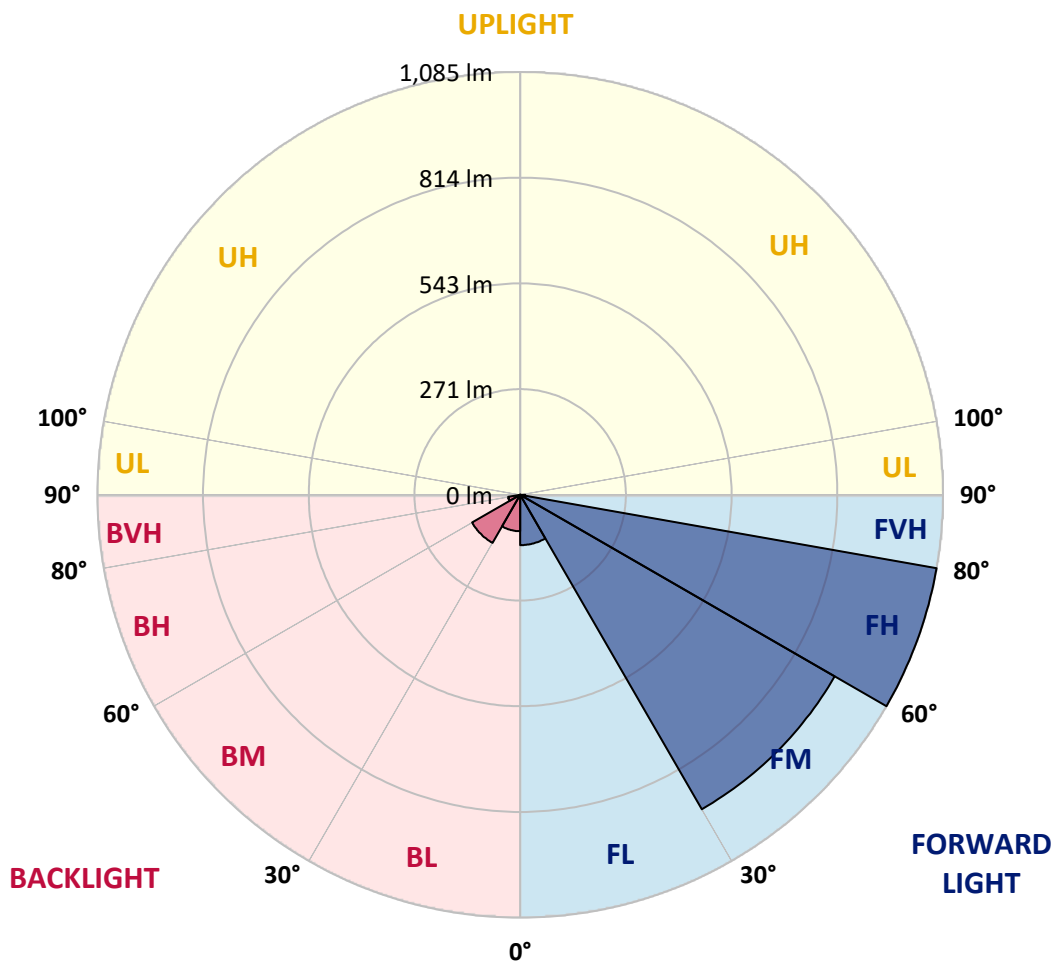
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	129.2	5.3			
FM	(30°-60°)	932.0	38.4			
FH	(60°-80°)	1085.3	44.7			G1/1800
FVH	(80°-90°)	13.0	0.5			G1/100
BL	(0°-30°)	93.4	3.8	B0/110		
BM	(30°-60°)	142.5	5.9	B0/220		
BH	(60°-80°)	31.3	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°	376.2	376.2	376.2	376.2	376.2	376.2	376.2	376.2	376.2	376.2	376.2
2.5°	342.6	338.2	342.1	344.0	345.5	347.5	350.4	355.7	361.6	368.4	372.3
5°	298.7	301.2	302.6	308.0	313.3	314.3	323.6	334.3	347.9	361.6	373.3
7.5°	263.1	263.1	267.5	275.8	284.6	285.6	301.6	315.8	335.3	356.2	375.2
10°	234.9	235.9	239.3	247.6	258.8	261.2	279.2	298.7	323.1	350.4	377.2
12.5°	225.6	225.1	224.7	230.5	239.8	242.2	262.2	285.6	314.3	347.5	382.1
15°	231.5	230.0	226.6	227.6	233.4	235.9	253.4	276.8	309.0	347.0	390.3
17.5°	240.7	238.8	232.4	230.5	236.8	239.3	253.9	274.4	307.0	349.4	400.1
20°	251.9	250.0	240.2	237.8	244.1	246.1	261.2	278.7	308.0	354.3	413.2
22.5°	268.0	265.6	251.5	248.5	254.9	256.8	272.9	289.0	313.8	363.0	431.3
25°	287.5	284.6	266.6	262.7	270.5	272.4	288.5	303.6	323.6	374.7	454.2
27.5°	309.0	305.5	286.5	278.7	287.5	290.4	305.5	322.1	337.7	389.4	484.4
30°	328.4	324.6	306.0	297.3	306.0	307.5	325.5	344.0	360.6	414.2	528.7
32.5°	382.5	372.8	344.0	318.7	324.6	327.5	349.4	378.6	403.5	443.9	585.8
35°	463.4	455.6	420.6	376.7	356.2	357.2	385.5	422.5	433.7	478.5	656.4
37.5°	541.4	534.6	503.9	463.4	424.4	425.9	430.8	466.4	479.5	538.5	742.7
40°	626.7	616.0	591.6	553.1	526.3	520.0	496.1	520.9	549.7	614.0	836.7
42.5°	666.2	655.9	630.6	633.0	630.1	618.9	571.6	606.2	638.4	723.7	940.5
45°	731.5	711.5	659.3	663.2	659.3	660.3	672.0	722.2	750.0	839.6	1058.0
47.5°	791.9	769.0	714.4	710.5	727.6	736.3	799.2	860.1	862.5	940.5	1150.1
50°	846.9	830.4	780.2	780.7	811.9	821.6	947.3	1002.9	953.7	1018.0	1222.2
52.5°	920.0	896.7	851.8	867.9	916.6	925.4	1095.0	1128.1	1019.5	1088.2	1278.7
55°	987.8	975.1	942.0	965.9	1040.4	1063.3	1245.1	1224.6	1065.8	1150.5	1306.0
57.5°	1098.9	1086.7	1077.9	1090.1	1190.0	1218.8	1397.1	1292.8	1101.8	1192.0	1293.3
60°	1284.1	1271.9	1245.6	1256.8	1386.9	1401.5	1516.5	1362.0	1115.9	1203.7	1243.6
62.5°	1512.6	1497.5	1455.1	1506.8	1637.4	1636.9	1640.3	1398.6	1097.9	1169.1	1112.5
65°	1718.8	1697.8	1675.9	1781.1	1940.0	1918.1	1771.9	1403.0	1040.9	1001.9	860.6
67.5°	1868.8	1860.6	1872.7	2037.0	2208.0	2186.1	1899.5	1342.5	866.4	723.2	531.7
70°	1863.0	1845.9	1923.4	2185.6	2341.1	2323.0	1894.2	1103.3	578.0	383.0	222.7
71°	1762.1	1742.6	1860.6	2171.0	2348.8	2331.8	1826.0	943.9	457.1	270.5	146.7
72.5°	1361.6	1420.5	1608.1	2014.6	2273.8	2251.9	1640.3	722.7	289.5	156.4	73.6
75°	576.0	608.2	954.6	1438.1	1705.6	1694.4	1105.7	333.8	133.0	70.7	28.3
77.5°	148.1	146.2	292.4	616.9	993.1	1010.7	509.7	114.5	69.2	50.2	16.1
80°	28.8	31.2	83.3	214.4	379.1	389.4	166.2	50.2	46.3	39.5	8.3
82.5°	2.9	3.4	14.6	66.3	127.2	122.8	36.5	19.0	28.3	26.8	3.9
85°	0.0	0.0	0.5	0.5	0.5	0.5	0.5	1.9	6.8	7.3	1.0
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°	376.2	376.2	376.2	376.2	376.2	376.2	376.2	376.2	376.2	376.2	376.2
2.5°	375.2	379.6	384.5	387.9	391.3	391.8	396.7	395.7	397.2	397.6	397.2
5°	379.6	385.5	394.7	399.6	401.5	398.1	397.2	391.8	389.9	387.4	385.0
7.5°	384.5	391.8	402.5	405.0	398.1	385.5	375.2	362.1	349.9	342.1	343.1
10°	389.9	399.1	407.9	401.5	384.0	359.1	330.4	301.2	275.3	265.6	269.0
12.5°	396.7	407.9	411.8	394.2	360.1	309.9	257.8	213.4	186.6	170.6	168.6
15°	406.9	418.1	413.7	382.5	322.1	243.7	178.8	134.0	108.2	99.9	95.5
17.5°	419.6	430.3	413.7	361.6	268.0	174.5	108.7	81.4	73.1	71.1	71.6
20°	435.2	445.4	411.8	329.9	206.6	107.2	72.6	67.2	67.2	67.2	66.8
22.5°	456.1	461.5	408.9	288.0	142.3	72.6	64.3	63.8	64.3	64.3	64.3
25°	481.5	480.5	403.5	237.8	89.7	61.9	61.4	61.4	61.9	62.4	62.4
27.5°	515.1	504.9	394.2	177.9	63.4	57.5	58.5	59.5	60.4	61.4	61.4
30°	561.9	537.0	379.1	120.4	53.6	53.1	55.1	58.0	59.5	60.4	60.4
32.5°	612.1	570.2	353.3	77.0	49.2	48.7	50.7	55.1	59.0	59.9	59.9
35°	675.4	605.7	314.8	55.6	46.3	45.3	47.3	51.2	57.0	59.9	59.9
37.5°	742.2	643.7	258.8	46.8	43.4	42.4	43.9	46.8	53.6	59.0	59.5
40°	813.3	677.4	194.4	43.4	40.4	40.0	40.4	43.4	48.7	56.0	57.5
42.5°	885.0	705.6	136.0	40.0	38.0	37.0	38.0	40.0	44.8	51.2	52.1
45°	963.9	736.8	90.6	37.0	36.1	35.1	36.1	37.5	40.9	44.3	44.8
47.5°	1021.4	748.0	62.4	33.6	33.1	33.6	34.1	35.1	37.0	37.5	37.0
50°	1059.4	742.2	44.8	30.2	30.7	32.2	32.2	32.6	32.6	31.2	30.7
52.5°	1087.2	720.7	34.6	25.8	28.8	30.2	30.2	29.2	28.3	26.3	25.8
55°	1090.1	672.5	27.3	22.4	25.8	28.3	27.8	25.8	23.9	21.9	21.9
57.5°	1053.1	599.4	22.4	19.0	22.4	24.9	23.9	21.9	19.5	18.0	18.0
60°	993.1	524.3	19.0	16.1	18.5	21.0	19.5	18.0	15.6	14.1	14.1
62.5°	882.5	450.3	15.6	13.2	15.1	16.6	16.1	14.6	12.2	11.2	10.7
65°	676.4	342.6	11.7	10.2	11.7	13.6	12.7	11.2	9.7	8.3	7.8
67.5°	406.4	206.1	9.3	7.8	9.3	10.7	9.7	8.3	6.8	5.8	5.8
70°	172.0	88.2	7.3	5.8	6.8	8.3	7.8	6.8	5.4	4.9	4.9
71°	117.0	62.9	6.3	5.4	6.3	7.8	7.3	6.3	5.4	4.9	4.9
72.5°	59.9	32.2	5.4	4.4	5.8	6.8	6.8	5.8	4.9	4.9	4.9
75°	21.4	13.6	4.4	3.9	4.9	4.9	5.4	5.4	5.4	5.4	4.9
77.5°	12.2	8.3	3.9	3.9	3.9	4.4	5.4	5.8	6.3	6.3	5.8
80°	6.8	4.4	2.4	2.9	3.9	4.4	5.4	5.8	6.8	6.8	6.3
82.5°	3.4	1.5	0.5	1.5	2.4	3.9	4.4	4.9	5.8	5.4	5.4
85°	0.5	0.0	0.0	0.5	1.5	1.9	2.9	3.9	4.9	4.9	4.4
87.5°	0.0	0.0	0.0	0.0	0.5	1.0	1.5	2.4	3.4	3.9	3.4
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)