

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: P400725

Luminaire Tested: **ENT-SA1-727-U-T4FT-HSS-XXB**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400725  
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-SA1-727-U-T4FT-HSS-XXB  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 2700K LIGHTSQUARE IN BATTERY OPERATION 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: 457 lumens  
Efficiency: N/A  
Efficacy: 35.2 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 - G0

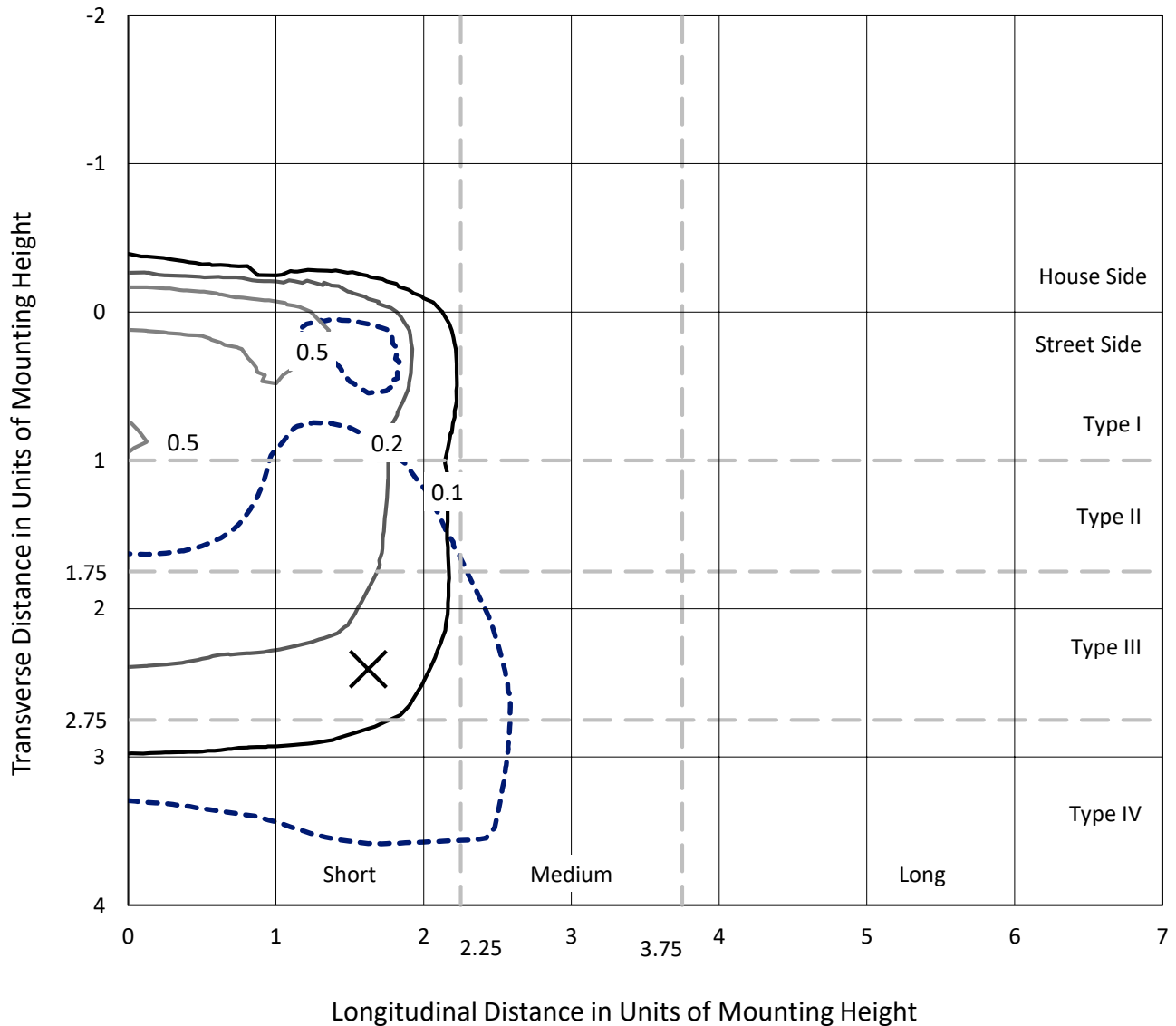
Input Watts (W): 13  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

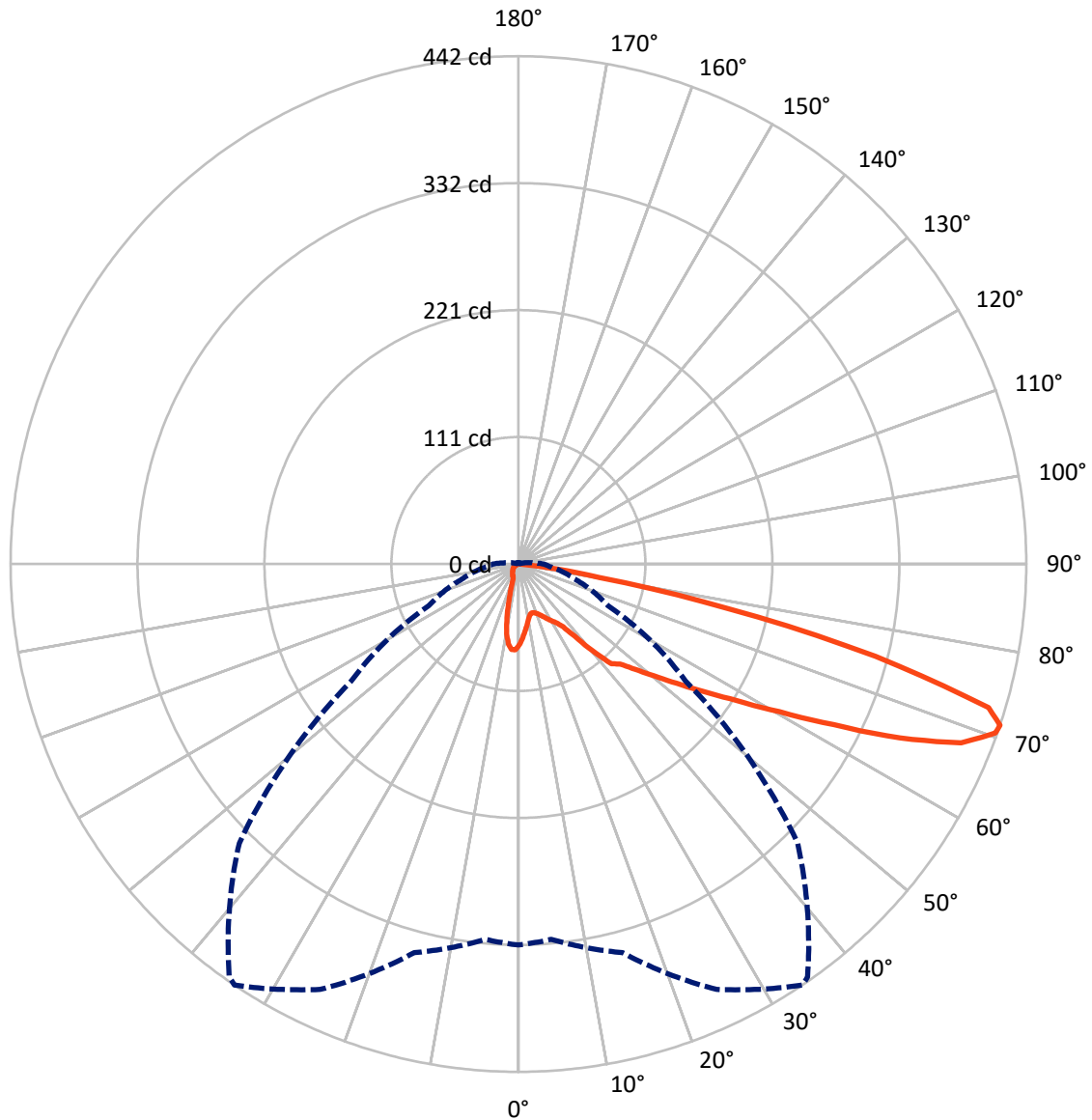
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 0.7 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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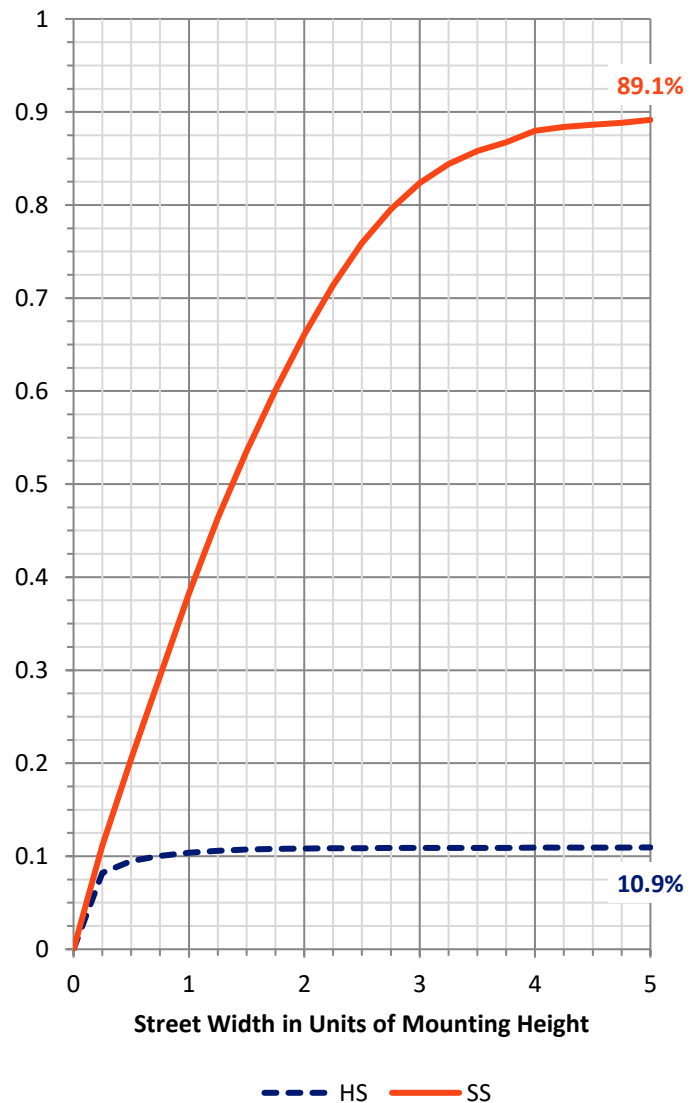
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	50.5	0.0	50.5
	% Fixture	11.1	0.0	11.1
<b>Street Side</b>	Lumens	406.5	0.0	406.5
	% Fixture	88.9	0.0	88.9
<b>Total</b>	Lumens	457.0	0.0	457.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	6.2	1.4
10°-20°	14.3	3.1
20°-30°	21.4	4.7
30°-40°	35.7	7.8
40°-50°	64.4	14.1
50°-60°	102.2	22.4
60°-70°	137.3	30.0
70°-80°	72.9	15.9
80°-90°	2.7	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°	457.0	100.0
0°-180°	457.0	100.0



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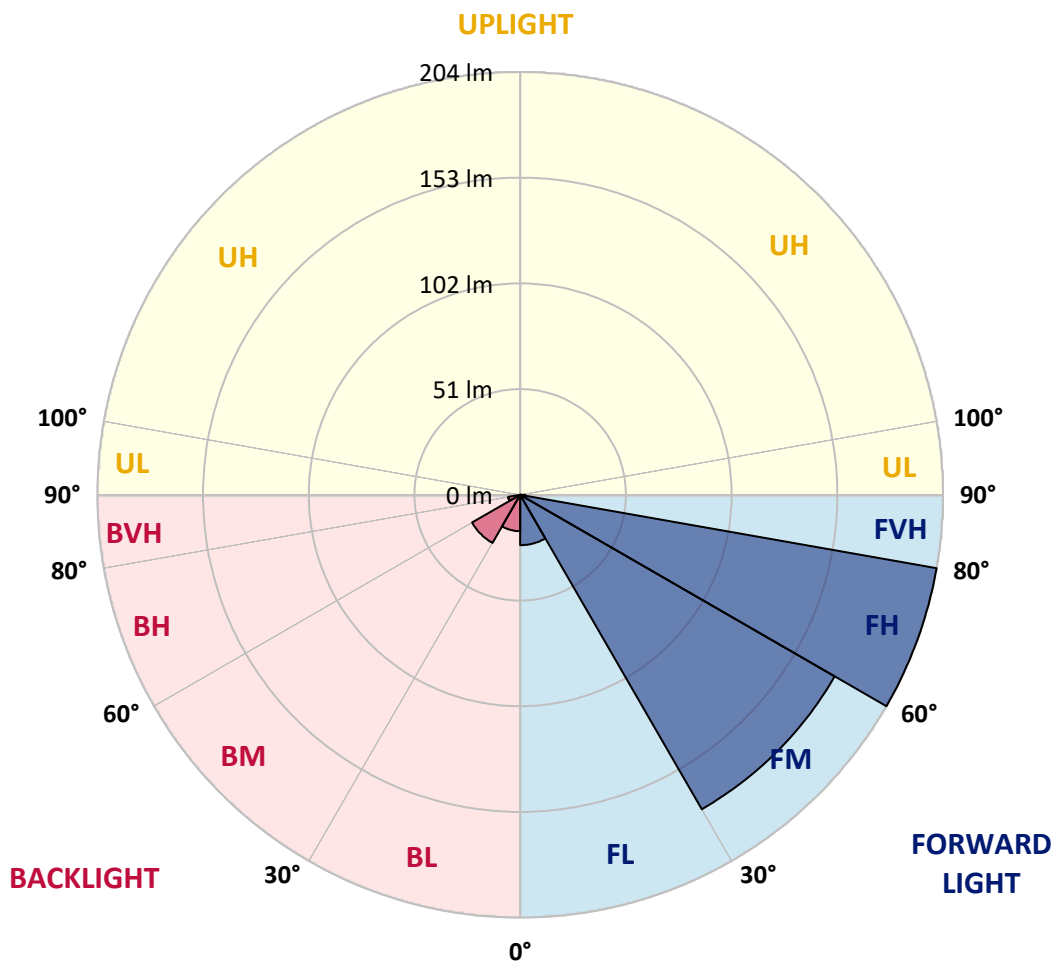
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	24.3	5.3			
FM	(30°-60°)	175.4	38.4			
FH	(60°-80°)	204.3	44.7			G0/660
FVH	(80°-90°)	2.4	0.5			G0/10
BL	(0°-30°)	17.6	3.8	B0/110		
BM	(30°-60°)	26.8	5.9	B0/220		
BH	(60°-80°)	5.9	1.3	B0/110		G0/110
BVH	(80°-90°)	0.2	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-G0**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8
2.5°	64.5	63.7	64.4	64.8	65.0	65.4	65.9	67.0	68.1	69.3	70.1
5°	56.2	56.7	57.0	58.0	59.0	59.2	60.9	62.9	65.5	68.1	70.3
7.5°	49.5	49.5	50.4	51.9	53.6	53.7	56.8	59.4	63.1	67.0	70.6
10°	44.2	44.4	45.0	46.6	48.7	49.2	52.6	56.2	60.8	65.9	71.0
12.5°	42.5	42.4	42.3	43.4	45.1	45.6	49.3	53.7	59.2	65.4	71.9
15°	43.6	43.3	42.7	42.8	43.9	44.4	47.7	52.1	58.2	65.3	73.5
17.5°	45.3	44.9	43.8	43.4	44.6	45.0	47.8	51.6	57.8	65.8	75.3
20°	47.4	47.1	45.2	44.8	46.0	46.3	49.2	52.5	58.0	66.7	77.8
22.5°	50.4	50.0	47.3	46.8	48.0	48.3	51.4	54.4	59.1	68.3	81.2
25°	54.1	53.6	50.2	49.4	50.9	51.3	54.3	57.1	60.9	70.5	85.5
27.5°	58.2	57.5	53.9	52.5	54.1	54.7	57.5	60.6	63.6	73.3	91.2
30°	61.8	61.1	57.6	56.0	57.6	57.9	61.3	64.8	67.9	78.0	99.5
32.5°	72.0	70.2	64.8	60.0	61.1	61.6	65.8	71.3	75.9	83.6	110.3
35°	87.2	85.8	79.2	70.9	67.0	67.2	72.6	79.5	81.6	90.1	123.6
37.5°	101.9	100.6	94.8	87.2	79.9	80.2	81.1	87.8	90.3	101.4	139.8
40°	118.0	115.9	111.4	104.1	99.1	97.9	93.4	98.1	103.5	115.6	157.5
42.5°	125.4	123.5	118.7	119.1	118.6	116.5	107.6	114.1	120.2	136.2	177.0
45°	137.7	133.9	124.1	124.8	124.1	124.3	126.5	135.9	141.2	158.0	199.1
47.5°	149.0	144.7	134.5	133.7	136.9	138.6	150.4	161.9	162.3	177.0	216.5
50°	159.4	156.3	146.8	146.9	152.8	154.6	178.3	188.8	179.5	191.6	230.0
52.5°	173.2	168.8	160.3	163.4	172.5	174.2	206.1	212.3	191.9	204.8	240.7
55°	185.9	183.5	177.3	181.8	195.8	200.1	234.4	230.5	200.6	216.6	245.8
57.5°	206.8	204.5	202.9	205.2	224.0	229.4	263.0	243.3	207.4	224.4	243.4
60°	241.7	239.4	234.4	236.6	261.0	263.8	285.4	256.4	210.0	226.6	234.1
62.5°	284.7	281.9	273.9	283.6	308.2	308.1	308.7	263.2	206.7	220.0	209.4
65°	323.5	319.6	315.4	335.2	365.1	361.0	333.5	264.1	195.9	188.6	162.0
67.5°	351.8	350.2	352.5	383.4	415.6	411.5	357.5	252.7	163.1	136.1	100.1
70°	350.7	347.4	362.0	411.4	440.6	437.2	356.5	207.7	108.8	72.1	41.9
71°	331.7	328.0	350.2	408.6	442.1	438.9	343.7	177.7	86.0	50.9	27.6
72.5°	256.3	267.4	302.7	379.2	428.0	423.8	308.7	136.0	54.5	29.4	13.9
75°	108.4	114.5	179.7	270.7	321.0	318.9	208.1	62.8	25.0	13.3	5.3
77.5°	27.9	27.5	55.0	116.1	186.9	190.2	95.9	21.6	13.0	9.4	3.0
80°	5.4	5.9	15.7	40.4	71.4	73.3	31.3	9.4	8.7	7.4	1.6
82.5°	0.6	0.6	2.8	12.5	23.9	23.1	6.9	3.6	5.3	5.0	0.7
85°	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.4	1.3	1.4	0.2
87.5°	0.0	0.0	0.1	0.1	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°	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8
2.5°	70.6	71.5	72.4	73.0	73.7	73.7	74.7	74.5	74.8	74.8	74.8
5°	71.5	72.6	74.3	75.2	75.6	74.9	74.8	73.7	73.4	72.9	72.5
7.5°	72.4	73.7	75.8	76.2	74.9	72.6	70.6	68.1	65.9	64.4	64.6
10°	73.4	75.1	76.8	75.6	72.3	67.6	62.2	56.7	51.8	50.0	50.6
12.5°	74.7	76.8	77.5	74.2	67.8	58.3	48.5	40.2	35.1	32.1	31.7
15°	76.6	78.7	77.9	72.0	60.6	45.9	33.7	25.2	20.4	18.8	18.0
17.5°	79.0	81.0	77.9	68.1	50.4	32.8	20.5	15.3	13.8	13.4	13.5
20°	81.9	83.8	77.5	62.1	38.9	20.2	13.7	12.7	12.7	12.7	12.6
22.5°	85.9	86.9	77.0	54.2	26.8	13.7	12.1	12.0	12.1	12.1	12.1
25°	90.6	90.4	75.9	44.8	16.9	11.6	11.6	11.6	11.6	11.7	11.7
27.5°	97.0	95.0	74.2	33.5	11.9	10.8	11.0	11.2	11.4	11.6	11.6
30°	105.8	101.1	71.4	22.7	10.1	10.0	10.4	10.9	11.2	11.4	11.4
32.5°	115.2	107.3	66.5	14.5	9.3	9.2	9.5	10.4	11.1	11.3	11.3
35°	127.1	114.0	59.3	10.5	8.7	8.5	8.9	9.6	10.7	11.3	11.3
37.5°	139.7	121.2	48.7	8.8	8.2	8.0	8.3	8.8	10.1	11.1	11.2
40°	153.1	127.5	36.6	8.2	7.6	7.5	7.6	8.2	9.2	10.5	10.8
42.5°	166.6	132.8	25.6	7.5	7.2	7.0	7.2	7.5	8.4	9.6	9.8
45°	181.4	138.7	17.1	7.0	6.8	6.6	6.8	7.1	7.7	8.3	8.4
47.5°	192.3	140.8	11.7	6.3	6.2	6.3	6.4	6.6	7.0	7.1	7.0
50°	199.4	139.7	8.4	5.7	5.8	6.1	6.1	6.1	6.1	5.9	5.8
52.5°	204.6	135.7	6.5	4.9	5.4	5.7	5.7	5.5	5.3	5.0	4.9
55°	205.2	126.6	5.1	4.2	4.9	5.3	5.2	4.9	4.5	4.1	4.1
57.5°	198.2	112.8	4.2	3.6	4.2	4.7	4.5	4.1	3.7	3.4	3.4
60°	186.9	98.7	3.6	3.0	3.5	3.9	3.7	3.4	2.9	2.7	2.7
62.5°	166.1	84.8	2.9	2.5	2.8	3.1	3.0	2.8	2.3	2.1	2.0
65°	127.3	64.5	2.2	1.9	2.2	2.6	2.4	2.1	1.8	1.6	1.5
67.5°	76.5	38.8	1.7	1.5	1.7	2.0	1.8	1.6	1.3	1.1	1.1
70°	32.4	16.6	1.4	1.1	1.3	1.6	1.5	1.3	1.0	0.9	0.9
71°	22.0	11.8	1.2	1.0	1.2	1.5	1.4	1.2	1.0	0.9	0.9
72.5°	11.3	6.1	1.0	0.8	1.1	1.3	1.3	1.1	0.9	0.9	0.9
75°	4.0	2.6	0.8	0.7	0.9	0.9	1.0	1.0	1.0	1.0	0.9
77.5°	2.3	1.6	0.7	0.7	0.7	0.8	1.0	1.1	1.2	1.2	1.1
80°	1.3	0.8	0.5	0.6	0.7	0.8	1.0	1.1	1.3	1.3	1.2
82.5°	0.6	0.3	0.1	0.3	0.5	0.7	0.8	0.9	1.1	1.0	1.0
85°	0.1	0.0	0.0	0.1	0.3	0.4	0.6	0.7	0.9	0.9	0.8
87.5°	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.5	0.6	0.7	0.6
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)