

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: P400715

Luminaire Tested: **ENT-SA1-727-U-SL4-HSS-XXB**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400715  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENT-SA1-727-U-SL4-HSS-XXB  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 2700K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 530 lumens  
Efficiency: N/A  
Efficacy: 40.8 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

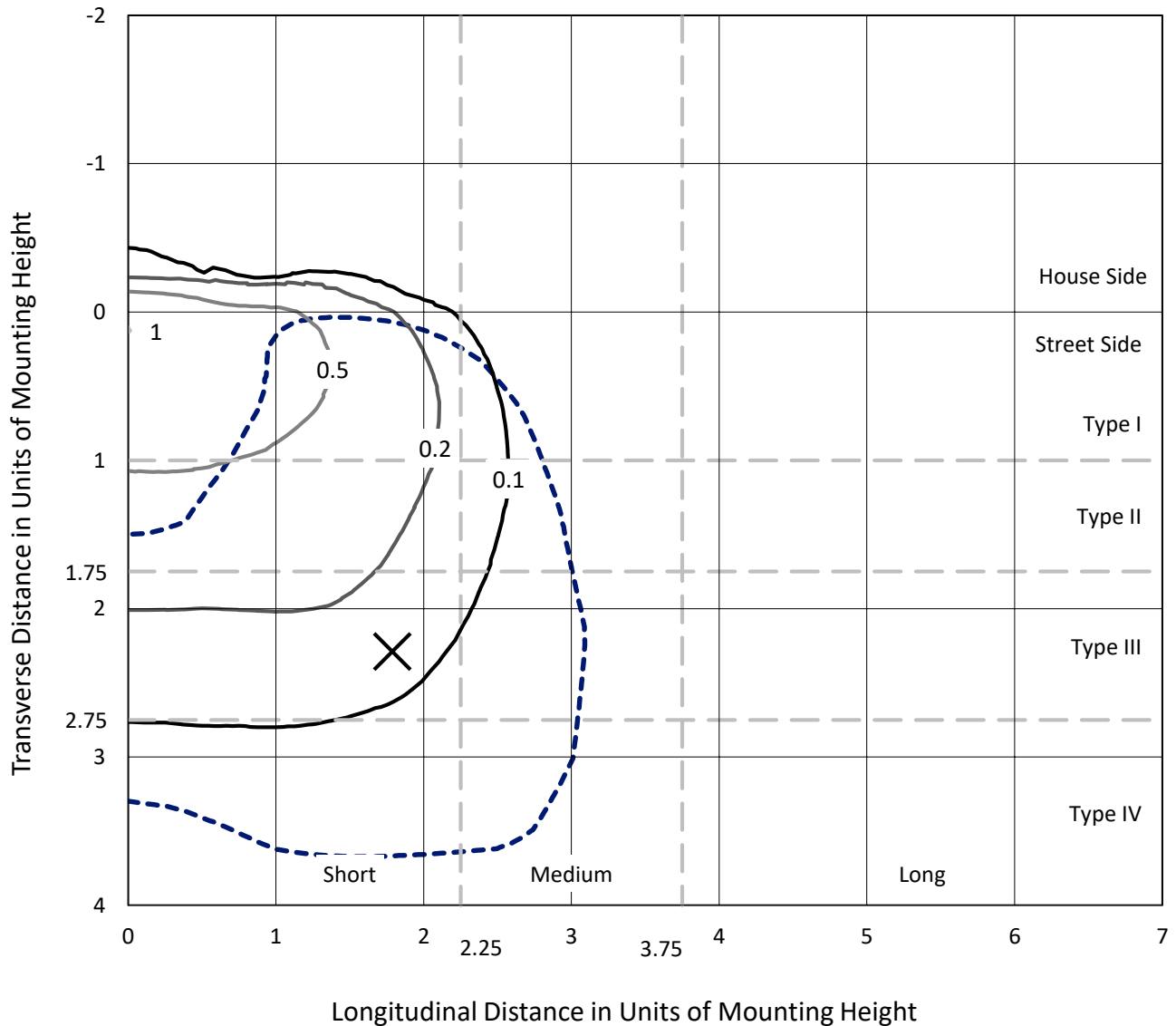
Input Watts (W): 13  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P400715  
 CATALOG NUMBER: ENT-SA1-727-U-SL4-HSS-XXB

### Iso-Footcandle Lines of Horizontal Illumination

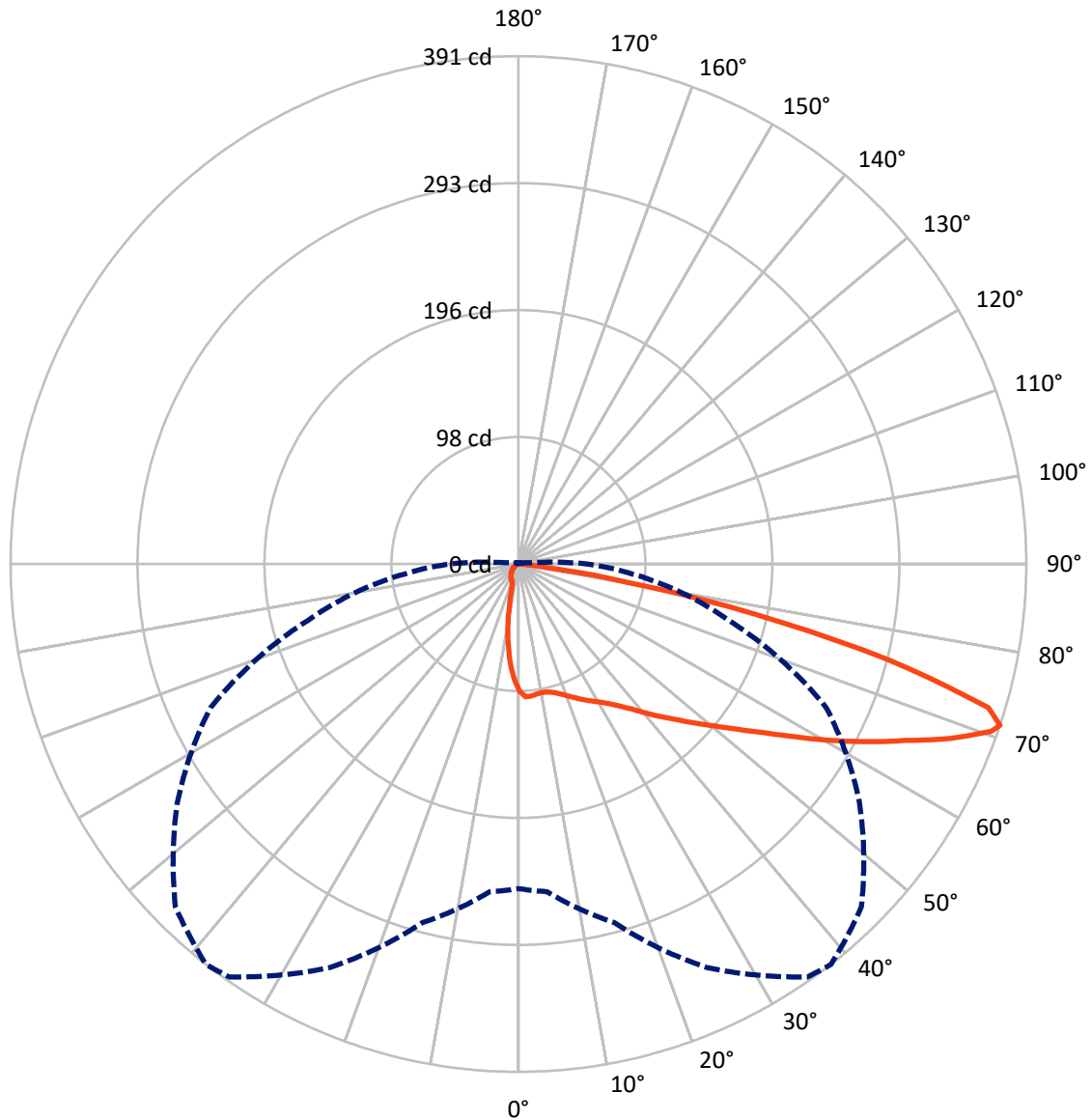
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 1 fc  
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P400715  
CATALOG NUMBER: ENT-SA1-727-U-SL4-HSS-XXB

### Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral      - - - Horizontal Cone Through 71-Deg Vertical

REPORT NUMBER: P400715

CATALOG NUMBER: ENT-SA1-727-U-SL4-HSS-XXB

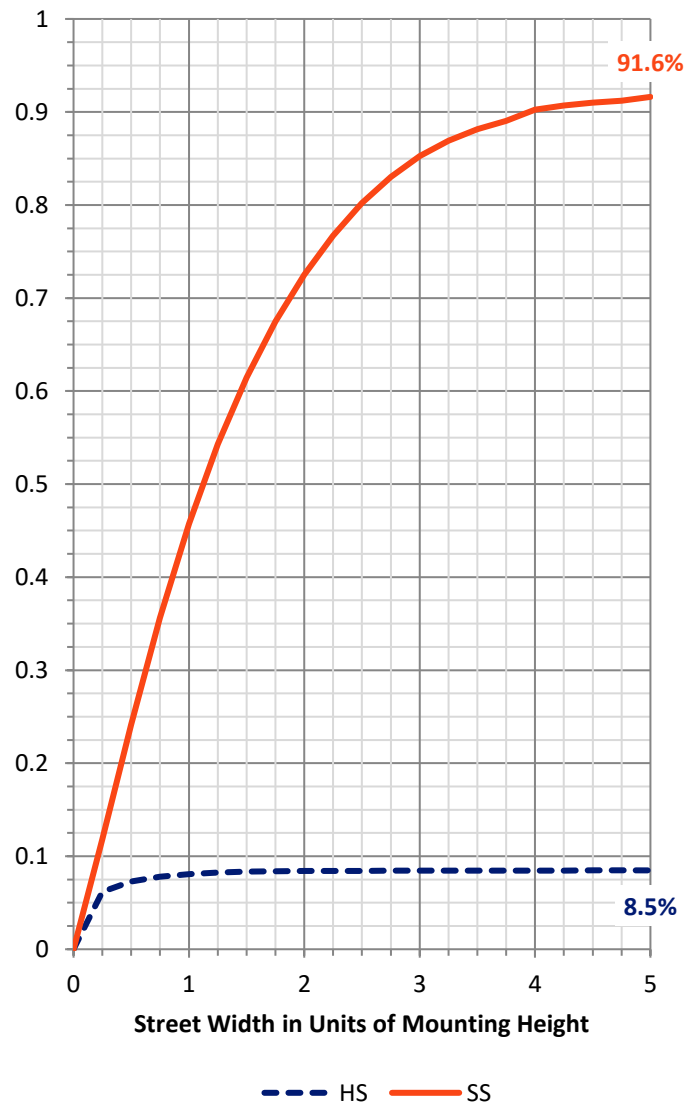
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	45.3	0.0	45.3
	% Fixture	8.5	0.0	8.5
<b>Street Side</b>	Lumens	484.7	0.0	484.7
	% Fixture	91.5	0.0	91.5
<b>Total</b>	Lumens	530.0	0.0	530.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	8.3	1.6
10°-20°	20.0	3.8
20°-30°	32.0	6.0
30°-40°	48.7	9.2
40°-50°	76.0	14.3
50°-60°	111.1	21.0
60°-70°	142.5	26.9
70°-80°	87.1	16.4
80°-90°	4.4	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°	530.0	100.0
0°-180°	530.0	100.0



REPORT NUMBER: P400715

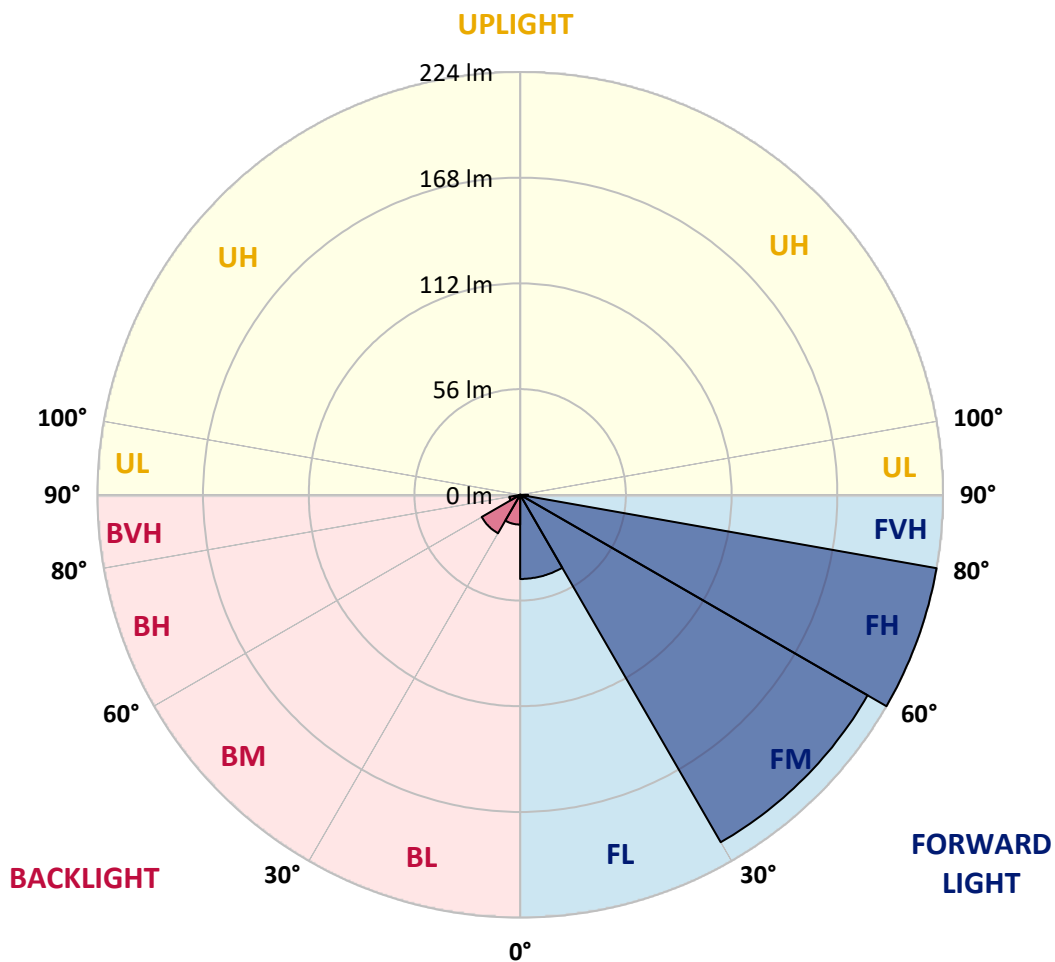
CATALOG NUMBER: ENT-SA1-727-U-SL4-HSS-XXB

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	44.5	8.4			
FM	(30°-60°)	212.3	40.1			
FH	(60°-80°)	223.7	42.2			G0/660
FVH	(80°-90°)	4.2	0.8			G0/10
BL	(0°-30°)	15.7	3.0	B0/110		
BM	(30°-60°)	23.5	4.4	B0/220		
BH	(60°-80°)	5.8	1.1	B0/110		G0/110
BVH	(80°-90°)	0.2	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-G0**

Type IV Short





REPORT NUMBER: P400715

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7
2.5°	103.5	103.2	103.5	103.2	102.7	102.4	102.0	101.0	100.1	99.0	97.3
5°	103.7	103.5	103.5	103.1	102.5	102.2	101.8	100.8	99.6	98.0	95.5
7.5°	102.7	102.6	102.4	102.0	101.3	101.1	100.8	99.6	98.4	96.7	93.7
10°	101.0	101.2	101.1	101.1	100.8	100.6	100.5	99.1	97.8	95.8	92.6
12.5°	99.5	99.6	100.1	100.8	101.1	101.2	101.2	99.8	98.3	96.1	92.7
15°	98.4	98.8	100.1	101.6	102.4	102.7	102.9	101.5	99.6	97.2	93.8
17.5°	98.2	98.7	101.2	103.5	105.1	105.2	105.2	103.4	101.5	98.7	95.0
20°	99.1	99.8	103.0	106.2	108.2	108.4	108.0	105.6	103.3	100.3	96.0
22.5°	101.8	102.5	106.2	109.9	111.8	111.9	111.1	107.8	105.3	102.8	97.3
25°	106.6	107.0	110.9	114.5	115.5	115.8	114.4	110.5	107.6	105.3	99.3
27.5°	113.0	113.1	116.7	119.4	119.6	119.5	118.0	113.9	111.0	109.1	102.2
30°	119.6	119.8	122.8	124.5	123.8	123.4	122.1	117.7	115.2	113.7	106.4
32.5°	125.7	126.0	129.2	130.1	128.5	128.2	127.3	122.6	120.4	121.1	112.5
35°	131.8	131.8	135.4	135.9	134.4	134.4	134.4	128.8	128.5	130.9	120.9
37.5°	137.2	138.1	142.0	141.8	141.5	141.7	142.2	138.0	139.3	143.5	132.1
40°	141.8	143.0	148.1	148.6	149.8	150.8	151.6	149.4	152.4	159.3	146.3
42.5°	145.9	147.3	153.9	156.0	159.3	160.7	162.3	161.7	168.4	181.0	164.5
45°	151.2	152.7	159.5	164.6	169.1	171.0	174.5	176.9	188.0	202.3	184.1
47.5°	158.3	159.3	165.6	173.6	179.8	183.1	188.5	194.7	208.2	224.9	201.7
50°	168.0	168.0	172.7	183.1	192.4	196.0	205.3	213.3	230.2	244.8	214.3
52.5°	178.6	178.1	181.7	194.9	206.6	211.5	222.5	233.6	250.6	259.2	220.0
55°	188.7	189.0	191.3	207.4	224.5	229.2	243.2	254.5	269.2	268.1	223.1
57.5°	200.4	200.3	203.2	221.0	245.5	250.9	265.5	274.8	280.5	274.4	223.7
60°	211.4	211.1	215.6	237.4	267.8	275.8	288.9	288.5	291.8	278.4	223.2
62.5°	221.2	221.9	229.8	256.4	292.8	301.4	308.0	303.4	304.3	283.1	217.5
65°	233.2	234.3	247.1	279.4	323.6	327.7	330.3	322.9	313.7	279.3	200.3
67.5°	248.2	251.8	269.8	313.4	355.7	358.6	358.7	334.6	313.3	260.3	168.4
70°	254.2	257.9	286.6	340.3	382.8	386.4	375.2	332.8	288.6	203.9	113.7
71°	250.1	253.4	286.1	342.9	388.4	391.3	373.7	320.8	261.7	168.0	88.1
72.5°	220.2	229.0	268.5	326.7	378.4	378.5	350.0	292.4	208.2	104.9	44.3
75°	118.9	129.6	196.8	248.7	291.9	294.2	269.2	203.0	100.7	27.2	10.7
77.5°	39.2	44.2	88.2	129.1	183.1	186.7	164.7	90.2	31.8	9.2	5.6
80°	24.6	25.2	29.8	54.3	81.5	84.5	67.8	36.5	14.3	5.1	3.9
82.5°	4.1	5.0	14.0	16.0	28.7	22.8	15.4	18.6	6.7	2.3	3.3
85°	0.0	0.0	0.1	0.1	0.5	0.1	0.1	3.8	0.4	0.4	1.7
87.5°	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	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



REPORT NUMBER: P400715

CATALOG NUMBER: ENT-SA1-727-U-SL4-HSS-XXB

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7
2.5°	96.6	95.9	94.4	92.8	90.9	89.3	88.7	87.5	87.0	86.5	86.5
5°	93.9	92.7	89.5	86.3	83.2	79.9	76.9	74.0	72.6	70.7	71.6
7.5°	91.7	89.5	85.1	80.1	73.6	67.1	62.1	57.7	54.0	52.8	52.0
10°	90.2	87.4	81.0	73.3	63.9	54.6	46.8	39.6	35.4	32.8	32.8
12.5°	90.0	86.5	78.1	66.3	52.8	40.2	30.6	23.7	20.3	18.7	18.6
15°	90.6	86.4	75.6	60.0	42.6	27.9	19.1	16.1	15.2	15.1	15.1
17.5°	91.2	86.3	72.5	52.8	31.4	18.4	15.2	14.6	14.4	14.3	14.3
20°	91.7	85.9	69.1	44.7	22.2	15.0	14.1	13.9	13.8	13.7	13.7
22.5°	92.5	85.4	65.5	35.5	16.4	14.0	13.5	13.2	13.1	13.1	13.1
25°	93.5	85.1	61.1	26.9	14.1	13.2	12.8	12.6	12.6	12.5	12.5
27.5°	95.4	85.4	56.3	19.3	13.2	12.5	12.2	12.0	12.0	11.9	11.9
30°	98.1	86.2	50.3	15.1	12.5	11.8	11.5	11.4	11.3	11.3	11.3
32.5°	101.8	87.5	43.8	12.9	11.6	11.0	10.7	10.7	10.7	10.7	10.6
35°	107.6	90.2	35.8	11.8	10.7	10.2	9.9	9.9	9.9	9.8	9.9
37.5°	116.4	94.5	27.7	10.8	9.8	9.4	9.2	9.1	9.1	9.1	9.1
40°	127.6	101.5	20.2	10.0	9.0	8.5	8.4	8.3	8.2	8.2	8.2
42.5°	141.9	109.2	14.7	9.1	8.3	7.8	7.6	7.4	7.3	7.2	7.2
45°	156.8	118.4	11.5	8.4	7.5	7.2	7.0	6.7	6.4	6.2	6.2
47.5°	171.2	125.4	9.8	7.5	6.9	6.5	6.3	6.0	5.5	5.2	5.2
50°	180.3	127.6	8.8	6.8	6.2	6.0	5.7	5.2	4.6	4.3	4.3
52.5°	183.1	123.6	7.9	6.2	5.7	5.4	5.1	4.4	3.8	3.4	3.4
55°	184.2	115.8	7.0	5.7	5.1	4.8	4.3	3.7	3.0	2.7	2.7
57.5°	182.8	104.8	6.2	5.1	4.6	4.2	3.7	2.9	2.3	2.0	2.0
60°	178.1	88.8	5.6	4.6	4.0	3.6	3.0	2.3	1.7	1.4	1.5
62.5°	165.5	68.7	4.9	3.9	3.5	3.0	2.4	1.7	1.1	0.9	0.9
65°	145.3	47.6	4.1	3.2	2.9	2.5	1.8	1.2	0.6	0.6	0.6
67.5°	118.0	30.8	3.2	2.7	2.5	2.0	1.4	0.7	0.4	0.4	0.3
70°	74.1	15.2	2.6	2.0	2.0	1.6	1.0	0.5	0.3	0.3	0.3
71°	52.4	10.4	2.3	1.8	1.8	1.5	0.9	0.4	0.3	0.3	0.3
72.5°	23.7	6.5	1.9	1.7	1.6	1.2	0.8	0.4	0.4	0.4	0.4
75°	7.4	3.6	1.4	1.3	1.3	1.0	0.7	0.5	0.5	0.5	0.5
77.5°	5.0	2.8	0.9	0.8	1.0	1.0	0.7	0.6	0.6	0.6	0.6
80°	4.0	1.5	0.6	0.6	0.7	0.9	0.7	0.6	0.6	0.6	0.6
82.5°	3.9	0.7	0.2	0.3	0.5	0.6	0.6	0.5	0.6	0.6	0.6
85°	1.7	0.2	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.5
87.5°	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	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)