

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: P400716

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

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400716  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-5)  
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-XXB  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 2700K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 612 lumens  
Efficiency: N/A  
Efficacy: 47.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B0 - U0 - G1

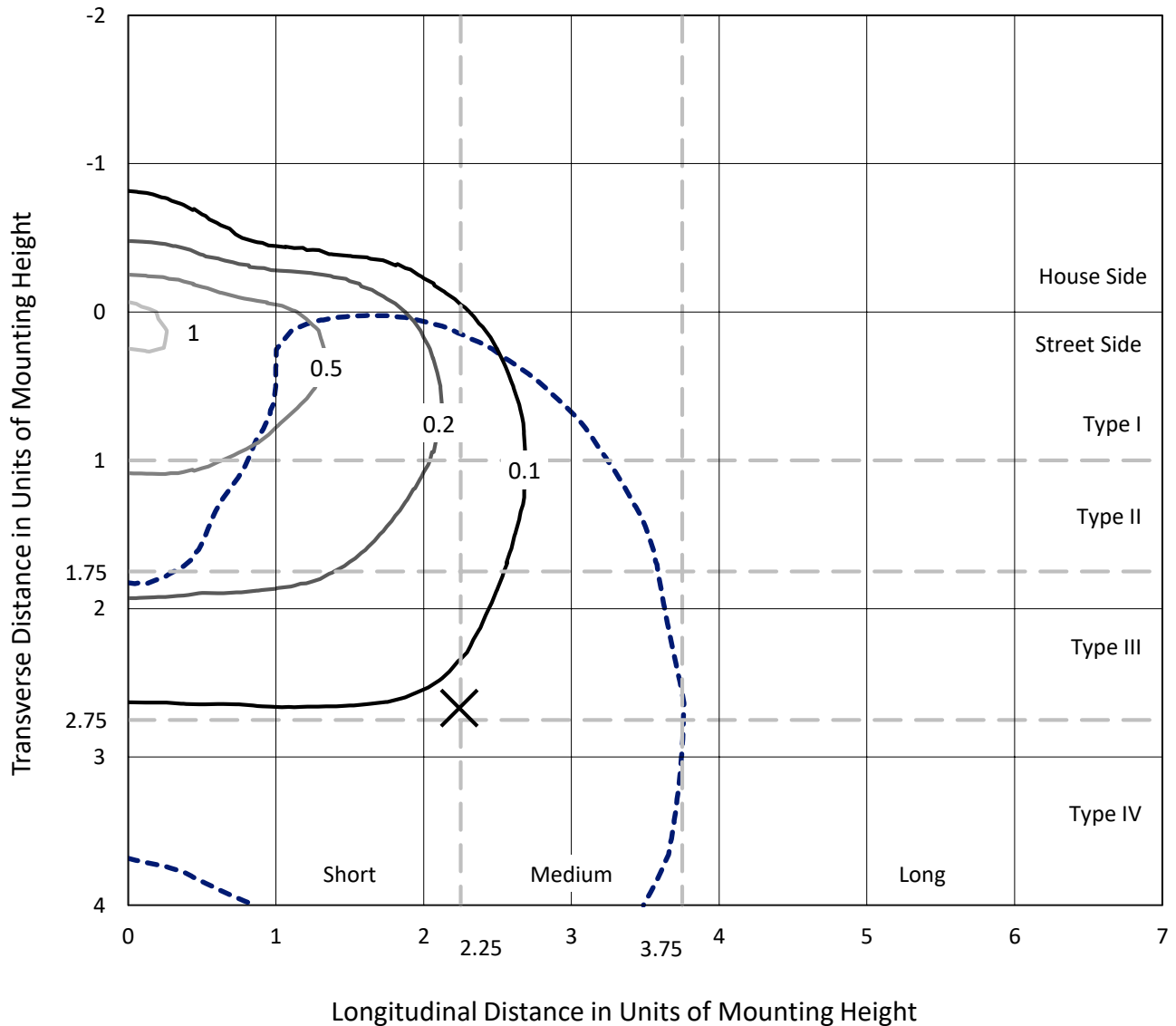
Input Watts (W): 13  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

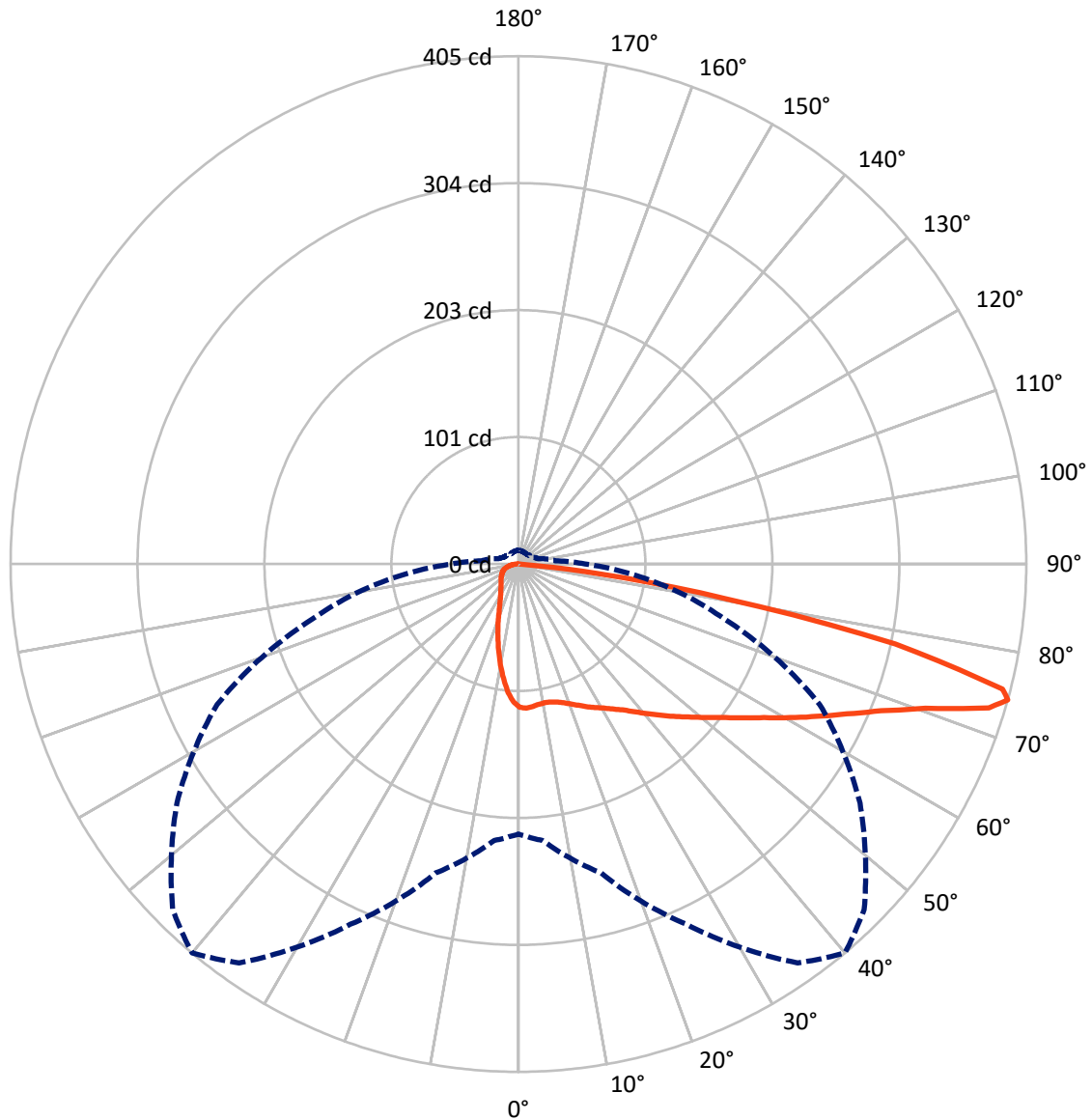


Based on 10 foot mounting height. Maximum calculated value = 1.1 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral    - - - Horizontal Cone Through 74-Deg Vertical

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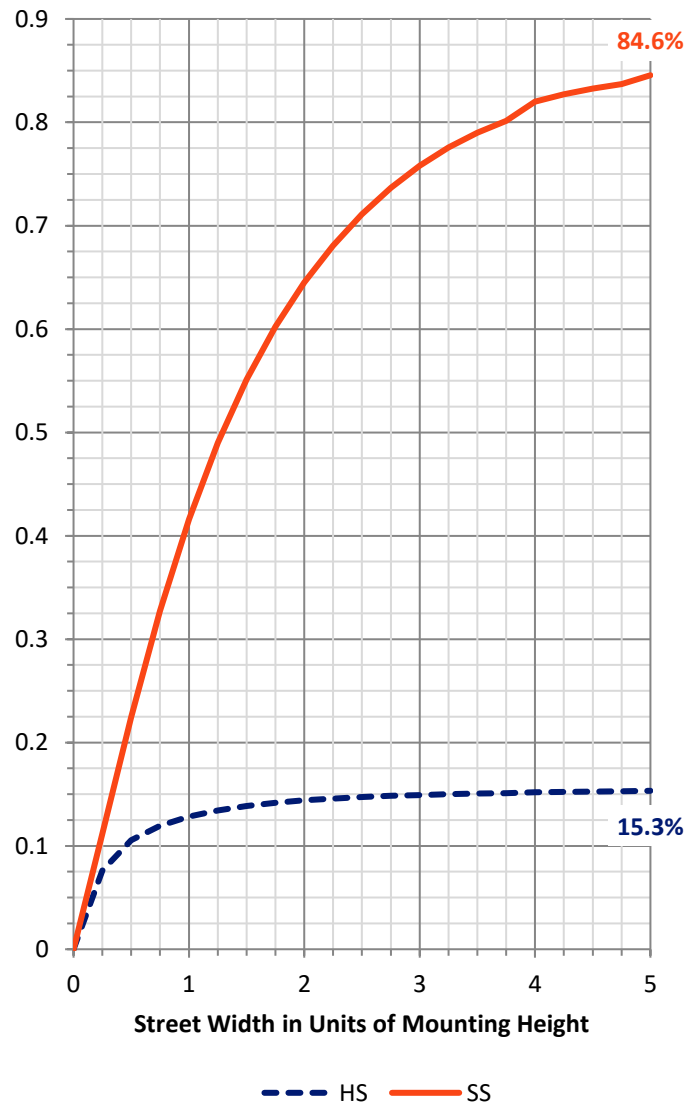
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	95.4	0.0	95.4
	% Fixture	15.6	0.0	15.6
<b>Street Side</b>	Lumens	516.6	0.0	516.6
	% Fixture	84.4	0.0	84.4
<b>Total</b>	Lumens	612.0	0.0	612.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	10.1	1.6
10°-20°	26.0	4.2
20°-30°	39.8	6.5
30°-40°	57.5	9.4
40°-50°	82.8	13.5
50°-60°	114.3	18.7
60°-70°	144.1	23.5
70°-80°	124.9	20.4
80°-90°	12.5	2.0
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°	612.0	100.0
0°-180°	612.0	100.0



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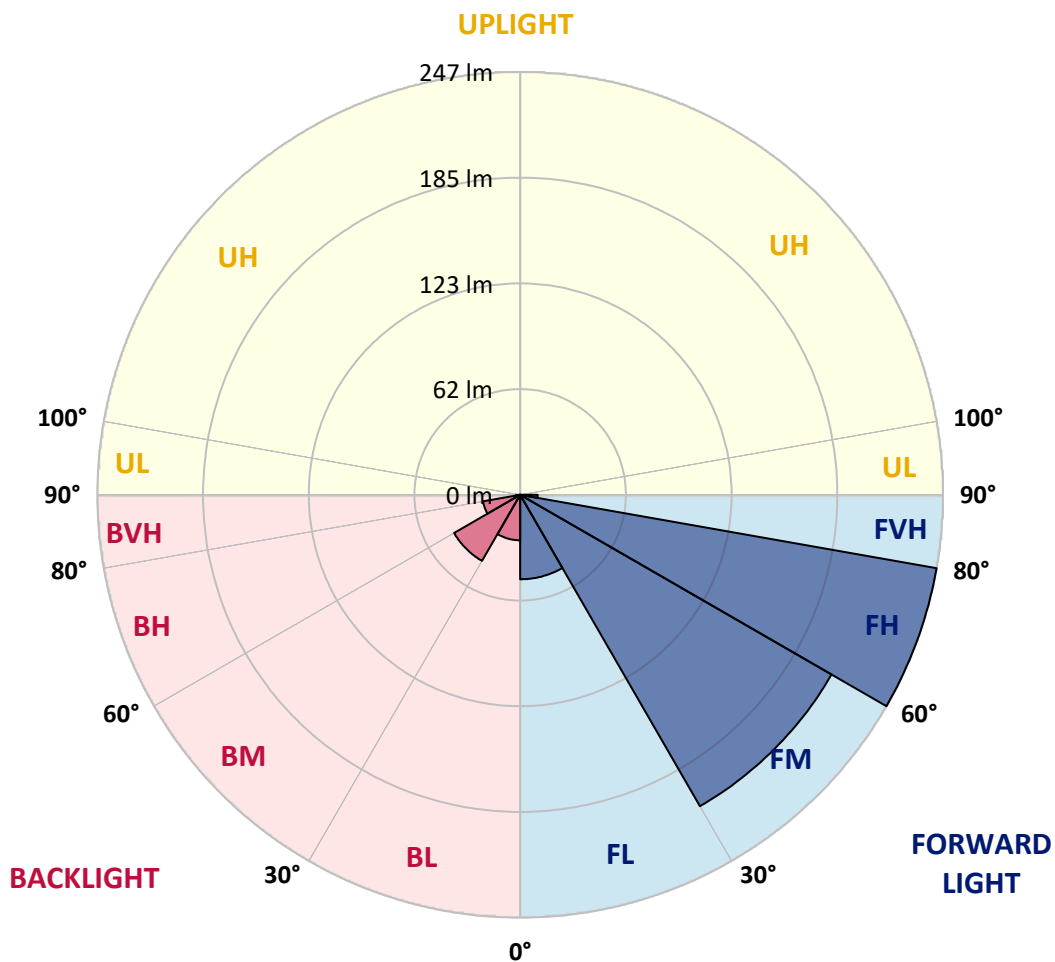
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	49.3	8.1			
FM	(30°-60°)	210.0	34.3			
FH	(60°-80°)	247.0	40.4			G0/660
FVH	(80°-90°)	10.2	1.7			G1/100
BL	(0°-30°)	26.6	4.3	B0/110		
BM	(30°-60°)	44.6	7.3	B0/220		
BH	(60°-80°)	22.0	3.6	B0/110		G0/110
BVH	(80°-90°)	2.3	0.4			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°	35°	40°	45°	55°	65°	75°	85°
0°	114.2	114.2	114.2	114.2	114.2	114.2	114.2	114.2	114.2	114.2	114.2
2.5°	115.7	115.6	115.9	115.7	115.4	115.2	115.2	114.6	114.4	113.9	113.1
5°	115.2	115.2	115.2	115.1	114.5	114.3	114.1	113.3	112.8	111.9	110.5
7.5°	113.7	114.0	113.9	113.8	113.3	113.1	112.9	111.9	111.1	109.7	108.0
10°	112.2	112.2	112.3	112.7	112.5	112.6	112.5	111.4	110.4	108.6	106.4
12.5°	110.1	110.5	111.0	112.0	112.5	112.9	112.9	112.0	110.9	108.8	106.3
15°	108.8	109.3	110.7	112.5	113.6	114.2	114.4	113.4	112.0	109.9	107.1
17.5°	108.3	108.8	111.4	114.0	115.9	116.4	116.5	115.4	114.0	111.4	108.1
20°	108.8	109.5	112.9	116.3	118.6	119.1	119.3	117.7	115.9	113.4	109.1
22.5°	110.9	111.9	115.6	119.4	121.8	122.4	122.2	120.0	118.2	115.5	110.4
25°	115.5	116.1	119.5	123.5	125.3	126.1	125.6	123.1	120.8	118.1	112.2
27.5°	120.8	121.6	125.2	128.2	129.4	129.6	129.1	126.5	123.9	121.7	115.1
30°	127.3	127.9	130.8	133.1	133.2	133.3	133.0	130.1	127.9	126.2	119.2
32.5°	134.1	134.1	137.2	138.3	137.5	137.8	137.5	134.3	132.8	132.2	124.6
35°	140.3	140.4	143.5	143.9	142.7	142.8	143.3	139.6	139.6	140.8	132.7
37.5°	146.3	146.5	149.3	148.9	148.5	149.3	150.0	146.8	148.6	152.3	142.5
40°	150.8	151.4	155.1	154.9	155.9	156.7	157.4	155.7	158.6	165.8	154.6
42.5°	153.7	155.0	160.2	161.5	163.2	164.7	165.8	165.7	170.9	180.8	167.5
45°	156.7	158.0	165.0	168.1	171.0	173.3	175.4	176.5	184.7	196.5	182.4
47.5°	160.4	161.5	169.3	175.4	179.2	182.3	186.1	188.5	198.8	212.6	196.3
50°	166.0	166.7	173.7	183.2	188.0	192.3	197.0	201.9	214.1	229.0	208.4
52.5°	173.2	173.7	178.8	191.1	198.7	203.3	210.3	216.7	229.6	243.9	218.3
55°	181.5	181.1	185.1	200.6	209.5	216.4	225.0	231.5	245.9	256.8	226.2
57.5°	189.8	189.5	192.6	209.7	223.1	231.1	240.0	246.9	260.9	268.9	231.9
60°	197.6	196.6	201.0	220.3	239.5	248.8	256.7	263.1	275.0	277.7	234.9
62.5°	204.6	204.6	211.0	233.4	259.1	267.5	273.8	278.0	288.5	284.1	233.7
65°	211.0	211.9	221.0	248.1	279.5	288.0	293.5	295.2	301.9	284.4	223.6
67.5°	218.3	219.6	232.5	265.3	303.0	312.1	316.8	316.3	311.4	280.1	202.0
70°	225.4	227.5	246.7	287.4	332.0	344.3	349.5	338.7	316.4	256.7	167.7
72.5°	230.5	234.1	258.4	309.5	373.5	392.4	390.3	344.8	293.2	211.6	126.9
74°	215.4	221.4	255.2	317.1	388.5	405.1	390.0	332.6	265.2	170.4	89.9
75°	197.9	203.7	238.9	314.1	391.3	398.8	371.1	311.1	237.8	132.0	58.7
77.5°	146.5	151.0	183.5	247.7	309.5	307.3	276.3	210.9	117.2	39.8	24.8
80°	64.7	68.1	90.6	124.6	167.6	167.0	155.5	96.9	37.8	20.8	15.1
82.5°	19.5	19.5	26.1	36.3	63.7	64.9	55.1	33.4	18.1	8.6	7.3
85°	0.1	0.1	0.1	0.1	0.3	2.4	2.0	6.4	3.3	1.6	2.7
87.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	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°	114.2	114.2	114.2	114.2	114.2	114.2	114.2	114.2	114.2	114.2	114.2
2.5°	112.7	112.6	112.3	111.7	111.2	109.8	110.3	109.4	109.3	109.1	109.0
5°	109.8	109.5	108.4	107.1	105.6	103.3	102.6	101.2	100.4	100.1	100.3
7.5°	106.9	106.1	104.0	101.2	98.3	94.9	92.4	90.5	89.1	88.6	88.0
10°	105.1	103.7	100.1	95.5	90.7	86.0	81.8	79.0	76.9	75.2	75.2
12.5°	104.4	102.6	97.4	90.7	83.8	77.0	71.0	67.3	63.7	61.9	61.7
15°	104.8	102.2	95.1	86.3	77.1	68.3	60.9	55.5	52.1	50.0	50.7
17.5°	105.2	101.9	92.7	81.6	70.6	60.4	51.8	45.7	41.6	40.5	40.0
20°	105.6	101.4	89.6	76.5	63.9	52.8	43.8	37.5	34.4	33.0	33.0
22.5°	106.3	100.7	86.5	70.9	57.0	45.3	37.0	32.3	29.8	29.0	29.0
25°	107.2	100.2	83.3	65.3	50.5	39.5	32.5	28.8	27.5	27.0	26.9
27.5°	108.9	100.3	80.2	59.6	44.0	34.5	29.3	26.9	25.9	25.6	25.5
30°	111.6	101.2	76.9	53.6	38.4	30.7	27.1	25.4	24.8	24.6	24.6
32.5°	115.2	102.9	74.1	48.2	34.1	27.7	25.2	24.1	23.8	23.6	23.7
35°	120.9	105.7	70.8	43.2	30.2	25.6	23.8	22.9	22.7	22.7	22.8
37.5°	128.4	110.1	67.6	38.6	27.5	23.8	22.4	21.9	21.7	21.8	21.9
40°	137.7	115.3	64.6	34.5	25.3	22.3	21.2	20.8	20.7	20.9	21.1
42.5°	147.8	121.7	61.8	31.1	23.6	21.1	20.2	20.0	19.9	20.0	20.3
45°	159.6	128.9	59.6	28.5	22.3	20.1	19.3	19.1	19.0	19.2	19.4
47.5°	170.4	135.4	57.7	26.8	21.2	19.4	18.5	18.3	18.3	18.3	18.4
50°	179.2	140.6	56.6	25.6	20.3	18.5	17.8	17.5	17.4	17.3	17.4
52.5°	186.8	144.4	56.2	24.9	19.5	17.8	17.1	16.9	16.7	16.5	16.6
55°	191.9	146.4	55.5	24.2	18.9	17.0	16.3	16.1	16.0	15.7	15.7
57.5°	194.8	146.2	53.9	23.9	18.5	16.2	15.6	15.6	15.4	15.0	15.0
60°	195.1	143.0	49.8	23.4	18.3	15.5	14.8	15.0	15.0	14.6	14.6
62.5°	190.4	134.5	42.0	22.2	17.9	15.0	14.1	14.6	14.8	14.4	14.4
65°	176.0	114.6	33.8	20.5	17.0	14.3	13.4	14.3	14.9	14.6	14.5
67.5°	148.4	90.7	27.9	18.5	16.0	13.5	12.7	13.9	14.6	14.6	14.5
70°	119.1	68.9	22.9	16.4	14.4	12.5	11.8	12.8	13.5	13.7	13.7
72.5°	82.0	42.1	18.6	14.1	12.7	11.3	10.7	11.4	11.7	12.1	12.0
74°	52.9	29.5	16.3	12.8	11.6	10.4	10.1	10.4	10.6	10.9	11.0
75°	35.4	24.1	15.2	11.9	10.9	9.7	9.5	9.8	10.0	10.3	10.3
77.5°	20.4	17.3	12.3	9.9	9.1	8.3	8.3	8.3	8.6	8.9	8.8
80°	14.1	13.1	9.7	7.7	7.2	6.8	6.9	7.0	7.4	7.5	7.4
82.5°	8.5	9.5	6.9	5.8	5.4	5.3	5.6	5.8	6.1	6.2	6.1
85°	3.4	4.5	3.4	3.2	3.6	3.9	4.4	4.7	4.9	4.9	4.9
87.5°	0.0	0.6	0.8	1.3	2.0	2.4	3.1	3.4	3.6	3.5	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)