

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: P400842

Luminaire Tested: **ENT-SA1-827-U-SL4-XXB**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400842  
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-SA1-827-U-SL4-XXB  
Description: ENTRI LED LUMINAIRE  
(1) 80 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: 538 lumens  
Efficiency: N/A  
Efficacy: 41.4 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 - 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

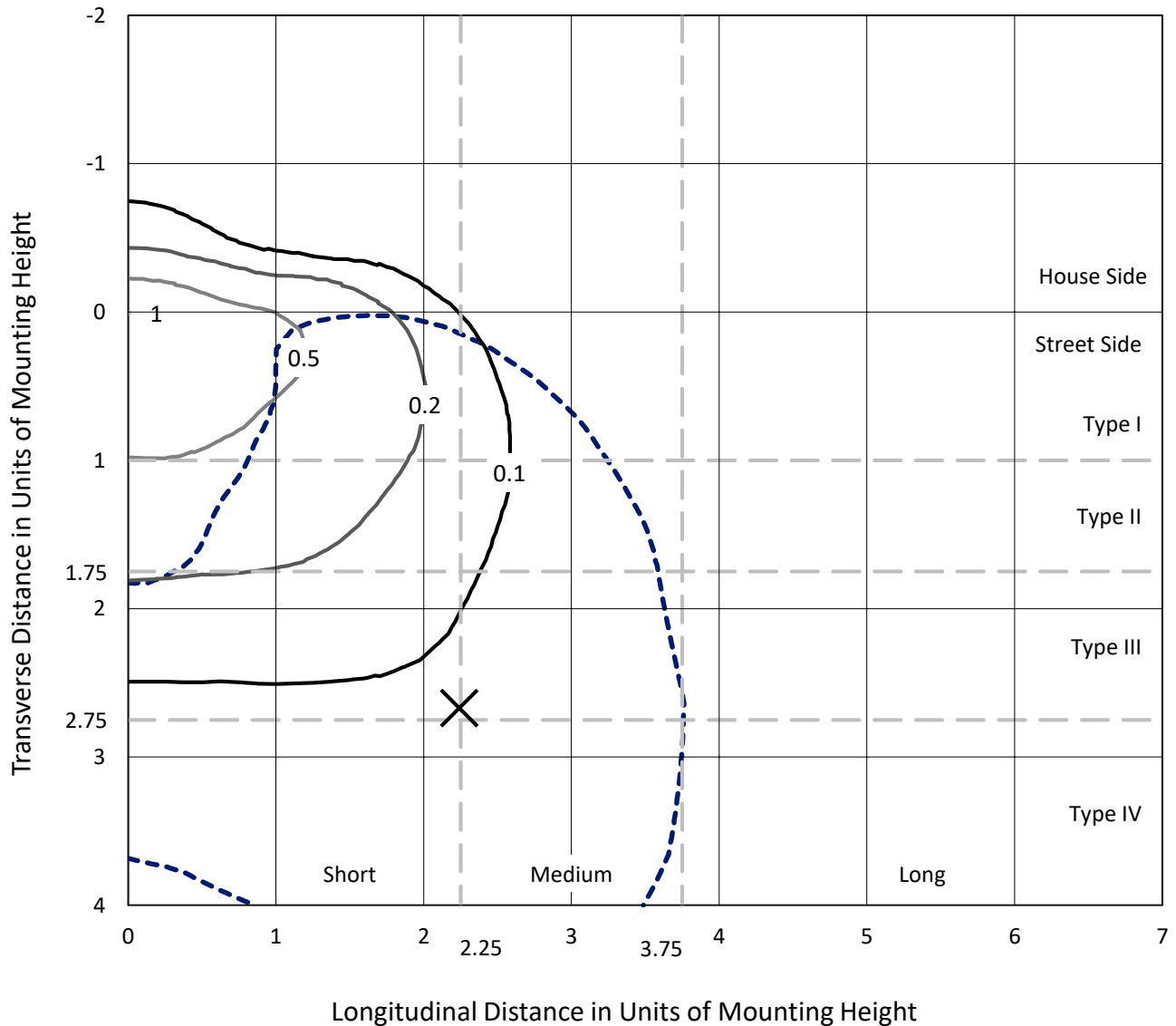


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

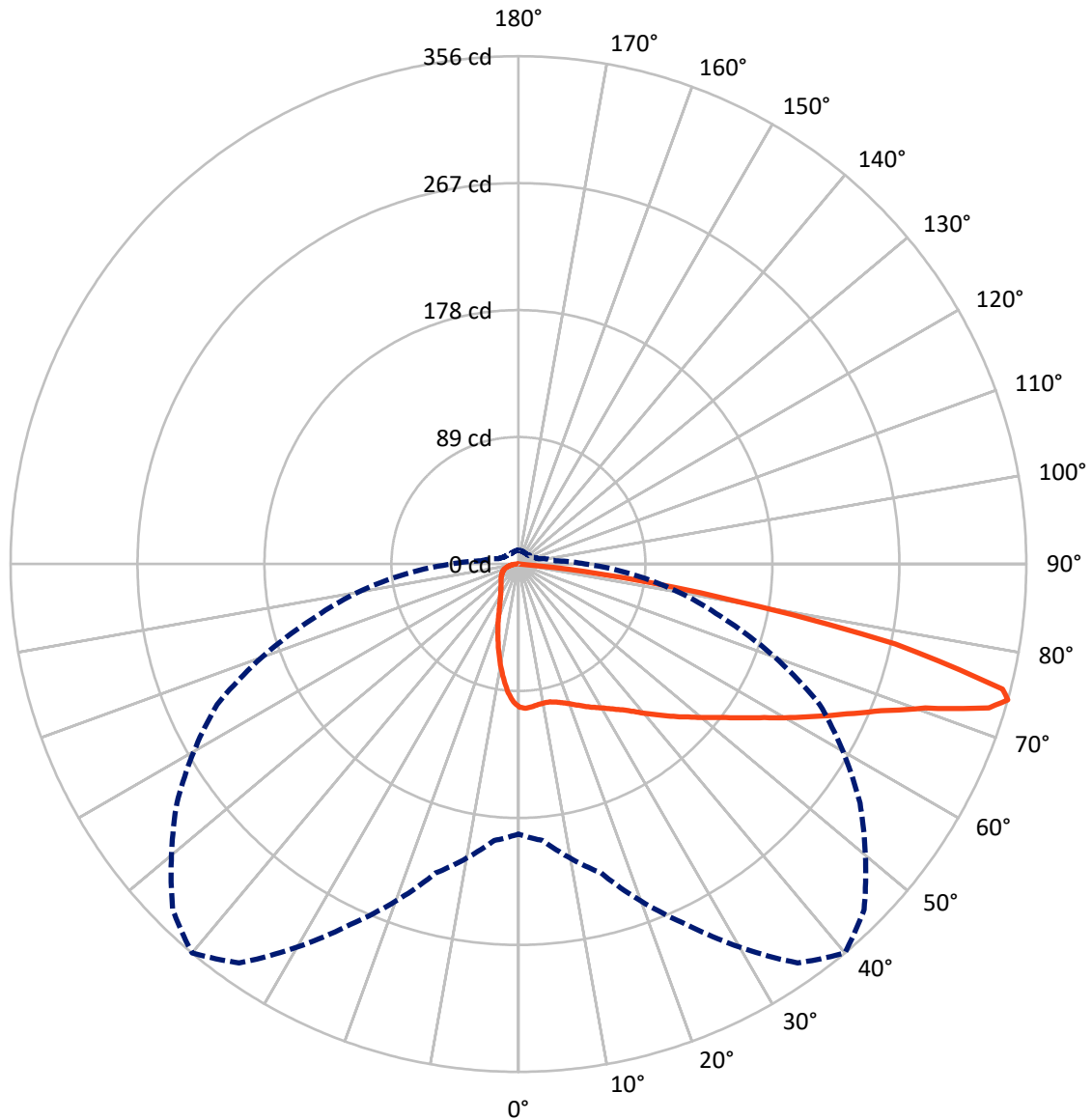


Based on 10 foot mounting height. Maximum calculated value = 1 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



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

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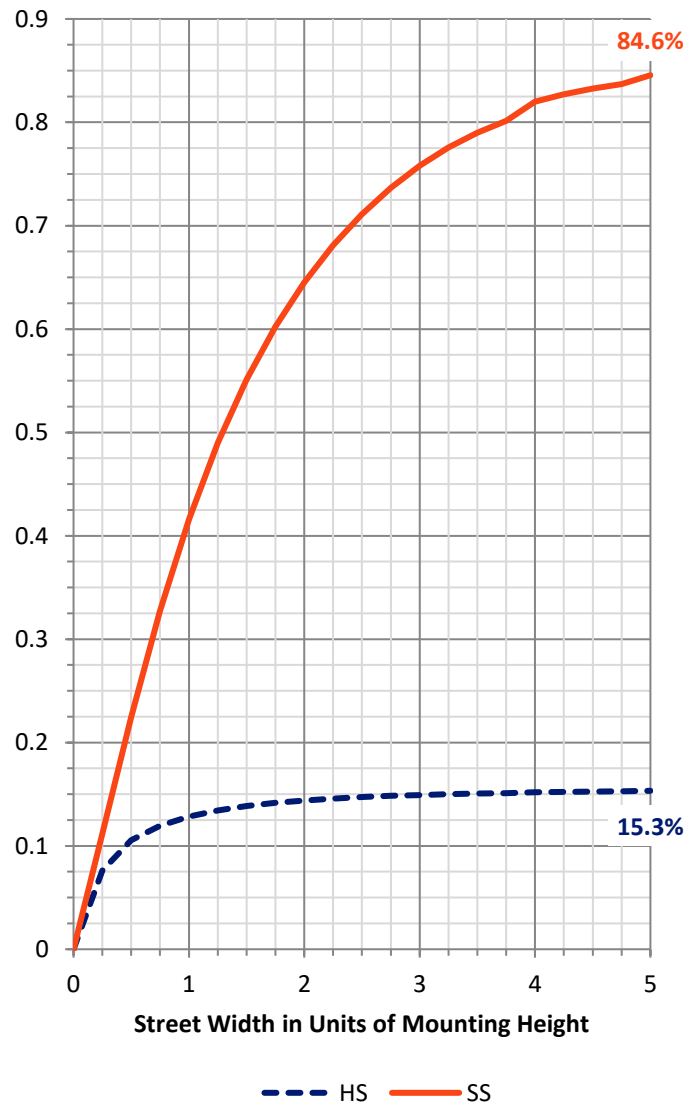
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	83.9	0.0	83.9
	% Fixture	15.6	0.0	15.6
<b>Street Side</b>	Lumens	454.1	0.0	454.1
	% Fixture	84.4	0.0	84.4
<b>Total</b>	Lumens	538.0	0.0	538.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	8.9	1.6
10°-20°	22.8	4.2
20°-30°	35.0	6.5
30°-40°	50.6	9.4
40°-50°	72.8	13.5
50°-60°	100.5	18.7
60°-70°	126.7	23.5
70°-80°	109.8	20.4
80°-90°	11.0	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°	538.0	100.0
0°-180°	538.0	100.0



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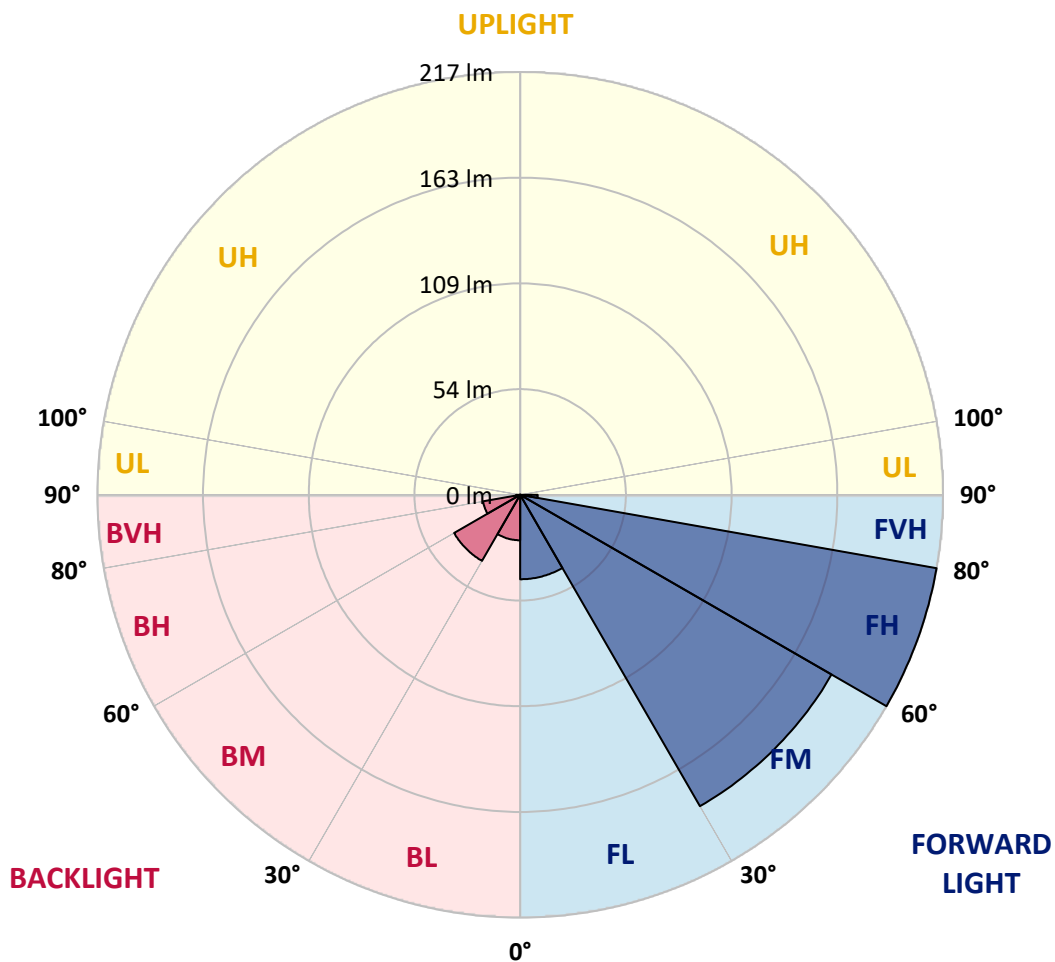
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	43.4	8.1			
FM	(30°-60°)	184.6	34.3			
FH	(60°-80°)	217.1	40.4			G0/660
FVH	(80°-90°)	9.0	1.7			G0/10
BL	(0°-30°)	23.3	4.3	B0/110		
BM	(30°-60°)	39.2	7.3	B0/220		
BH	(60°-80°)	19.4	3.6	B0/110		G0/110
BVH	(80°-90°)	2.0	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-G0**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	100.4	100.4	100.4	100.4	100.4	100.4	100.4	100.4	100.4	100.4	100.4
2.5°	101.7	101.6	101.9	101.7	101.5	101.3	101.2	100.7	100.6	100.1	99.5
5°	101.3	101.3	101.3	101.2	100.7	100.5	100.3	99.6	99.1	98.3	97.1
7.5°	99.9	100.2	100.1	100.0	99.6	99.5	99.2	98.3	97.7	96.5	94.9
10°	98.7	98.7	98.7	99.1	98.9	99.0	98.9	97.9	97.0	95.5	93.6
12.5°	96.8	97.1	97.6	98.5	98.9	99.2	99.2	98.5	97.5	95.7	93.4
15°	95.7	96.1	97.3	98.9	99.9	100.4	100.6	99.7	98.5	96.6	94.1
17.5°	95.2	95.7	97.9	100.2	101.9	102.4	102.4	101.5	100.2	97.9	95.0
20°	95.7	96.2	99.2	102.3	104.3	104.7	104.9	103.5	101.9	99.7	95.9
22.5°	97.5	98.3	101.6	104.9	107.0	107.6	107.4	105.5	103.9	101.6	97.0
25°	101.6	102.0	105.0	108.6	110.2	110.8	110.4	108.2	106.2	103.8	98.7
27.5°	106.2	106.9	110.0	112.7	113.7	113.9	113.5	111.2	108.9	107.0	101.2
30°	111.9	112.4	115.0	117.0	117.1	117.2	117.0	114.4	112.4	110.9	104.8
32.5°	117.8	117.9	120.6	121.6	120.9	121.2	120.9	118.1	116.7	116.2	109.5
35°	123.3	123.4	126.2	126.5	125.4	125.5	126.0	122.7	122.7	123.8	116.6
37.5°	128.6	128.8	131.2	130.9	130.5	131.2	131.9	129.1	130.7	133.9	125.3
40°	132.5	133.1	136.3	136.2	137.0	137.8	138.3	136.9	139.5	145.8	135.9
42.5°	135.1	136.2	140.8	142.0	143.5	144.8	145.8	145.7	150.2	158.9	147.2
45°	137.8	138.9	145.0	147.8	150.4	152.4	154.2	155.2	162.4	172.8	160.4
47.5°	141.0	142.0	148.8	154.2	157.5	160.3	163.6	165.7	174.8	186.9	172.5
50°	145.9	146.6	152.7	161.1	165.3	169.1	173.2	177.5	188.2	201.3	183.2
52.5°	152.3	152.7	157.2	168.0	174.7	178.7	184.9	190.5	201.8	214.4	191.9
55°	159.6	159.2	162.7	176.3	184.2	190.2	197.8	203.5	216.2	225.8	198.8
57.5°	166.8	166.6	169.3	184.3	196.1	203.2	211.0	217.1	229.3	236.4	203.8
60°	173.7	172.9	176.7	193.7	210.5	218.7	225.7	231.3	241.7	244.1	206.5
62.5°	179.9	179.9	185.5	205.2	227.8	235.1	240.7	244.4	253.6	249.7	205.4
65°	185.5	186.2	194.3	218.1	245.7	253.2	258.0	259.5	265.4	250.0	196.6
67.5°	191.9	193.0	204.4	233.2	266.3	274.3	278.5	278.0	273.8	246.3	177.5
70°	198.1	200.0	216.9	252.6	291.8	302.6	307.2	297.7	278.1	225.7	147.5
72.5°	202.6	205.8	227.1	272.1	328.4	345.0	343.1	303.1	257.7	186.0	111.6
74°	189.4	194.6	224.3	278.8	341.5	356.1	342.8	292.4	233.1	149.8	79.0
75°	174.0	179.1	210.0	276.1	344.0	350.6	326.2	273.5	209.1	116.1	51.6
77.5°	128.8	132.8	161.3	217.7	272.1	270.1	242.9	185.4	103.0	35.0	21.8
80°	56.9	59.9	79.6	109.5	147.4	146.8	136.7	85.2	33.2	18.3	13.3
82.5°	17.2	17.1	22.9	31.9	56.0	57.0	48.5	29.4	15.9	7.6	6.5
85°	0.1	0.1	0.1	0.1	0.2	2.1	1.8	5.6	2.9	1.4	2.3
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°	100.4	100.4	100.4	100.4	100.4	100.4	100.4	100.4	100.4	100.4	100.4
2.5°	99.1	99.0	98.7	98.2	97.8	96.6	97.0	96.1	96.1	95.9	95.8
5°	96.6	96.2	95.3	94.1	92.8	90.8	90.2	89.0	88.2	88.0	88.2
7.5°	94.0	93.2	91.4	89.0	86.4	83.4	81.2	79.5	78.3	77.9	77.4
10°	92.4	91.1	88.0	84.0	79.8	75.6	72.0	69.5	67.6	66.1	66.1
12.5°	91.8	90.2	85.6	79.7	73.6	67.7	62.4	59.1	56.0	54.4	54.2
15°	92.1	89.9	83.6	75.8	67.8	60.0	53.6	48.8	45.8	44.0	44.6
17.5°	92.4	89.6	81.5	71.7	62.0	53.1	45.6	40.2	36.5	35.6	35.2
20°	92.8	89.1	78.8	67.3	56.1	46.4	38.5	33.0	30.2	29.0	29.0
22.5°	93.4	88.5	76.1	62.4	50.1	39.8	32.5	28.4	26.2	25.5	25.5
25°	94.2	88.1	73.2	57.4	44.4	34.7	28.6	25.3	24.2	23.7	23.6
27.5°	95.7	88.2	70.5	52.4	38.7	30.3	25.7	23.6	22.7	22.5	22.4
30°	98.1	89.0	67.6	47.1	33.7	27.0	23.8	22.3	21.8	21.6	21.6
32.5°	101.3	90.4	65.2	42.3	30.0	24.4	22.2	21.2	20.9	20.7	20.8
35°	106.3	92.9	62.3	38.0	26.5	22.5	20.9	20.2	19.9	19.9	20.0
37.5°	112.8	96.8	59.4	34.0	24.2	20.9	19.7	19.3	19.0	19.2	19.3
40°	121.1	101.4	56.8	30.3	22.3	19.6	18.6	18.3	18.2	18.4	18.6
42.5°	129.9	107.0	54.4	27.3	20.7	18.6	17.7	17.6	17.5	17.6	17.8
45°	140.3	113.3	52.3	25.1	19.6	17.7	16.9	16.8	16.7	16.9	17.0
47.5°	149.8	119.1	50.7	23.6	18.6	17.0	16.3	16.1	16.1	16.1	16.2
50°	157.5	123.6	49.8	22.5	17.8	16.3	15.6	15.4	15.3	15.2	15.3
52.5°	164.2	127.0	49.4	21.9	17.2	15.6	15.0	14.8	14.7	14.5	14.6
55°	168.7	128.7	48.8	21.3	16.6	14.9	14.4	14.2	14.0	13.8	13.8
57.5°	171.2	128.5	47.3	21.0	16.3	14.3	13.7	13.7	13.6	13.1	13.2
60°	171.5	125.7	43.8	20.6	16.1	13.6	13.0	13.1	13.1	12.8	12.8
62.5°	167.4	118.3	36.9	19.5	15.7	13.1	12.4	12.8	13.0	12.7	12.7
65°	154.7	100.7	29.7	18.0	14.9	12.6	11.8	12.6	13.1	12.8	12.7
67.5°	130.4	79.8	24.5	16.3	14.0	11.9	11.1	12.2	12.8	12.8	12.7
70°	104.7	60.6	20.2	14.4	12.7	11.0	10.4	11.3	11.9	12.0	12.0
72.5°	72.1	37.0	16.4	12.4	11.1	9.9	9.4	10.0	10.3	10.6	10.6
74°	46.5	26.0	14.4	11.3	10.2	9.1	8.9	9.1	9.3	9.6	9.7
75°	31.1	21.2	13.4	10.5	9.6	8.6	8.4	8.6	8.8	9.0	9.0
77.5°	17.9	15.2	10.8	8.7	8.0	7.3	7.3	7.3	7.6	7.8	7.7
80°	12.4	11.5	8.6	6.8	6.3	6.0	6.0	6.1	6.5	6.6	6.5
82.5°	7.5	8.3	6.0	5.1	4.8	4.7	4.9	5.1	5.4	5.5	5.4
85°	3.0	4.0	3.0	2.8	3.1	3.5	3.9	4.1	4.3	4.3	4.3
87.5°	0.0	0.6	0.7	1.1	1.8	2.1	2.7	3.0	3.1	3.1	3.0
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)