

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: P400856

Luminaire Tested: **ENT-SA1-830-U-SL2-XXB**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400856  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENT-SA1-830-U-SL2-XXB  
Description: ENTRI LED LUMINAIRE  
(1) 80 CRI, 3000K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE II SPILL LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 606 lumens  
Efficiency: N/A  
Efficacy: 46.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B0 - U0 - G1

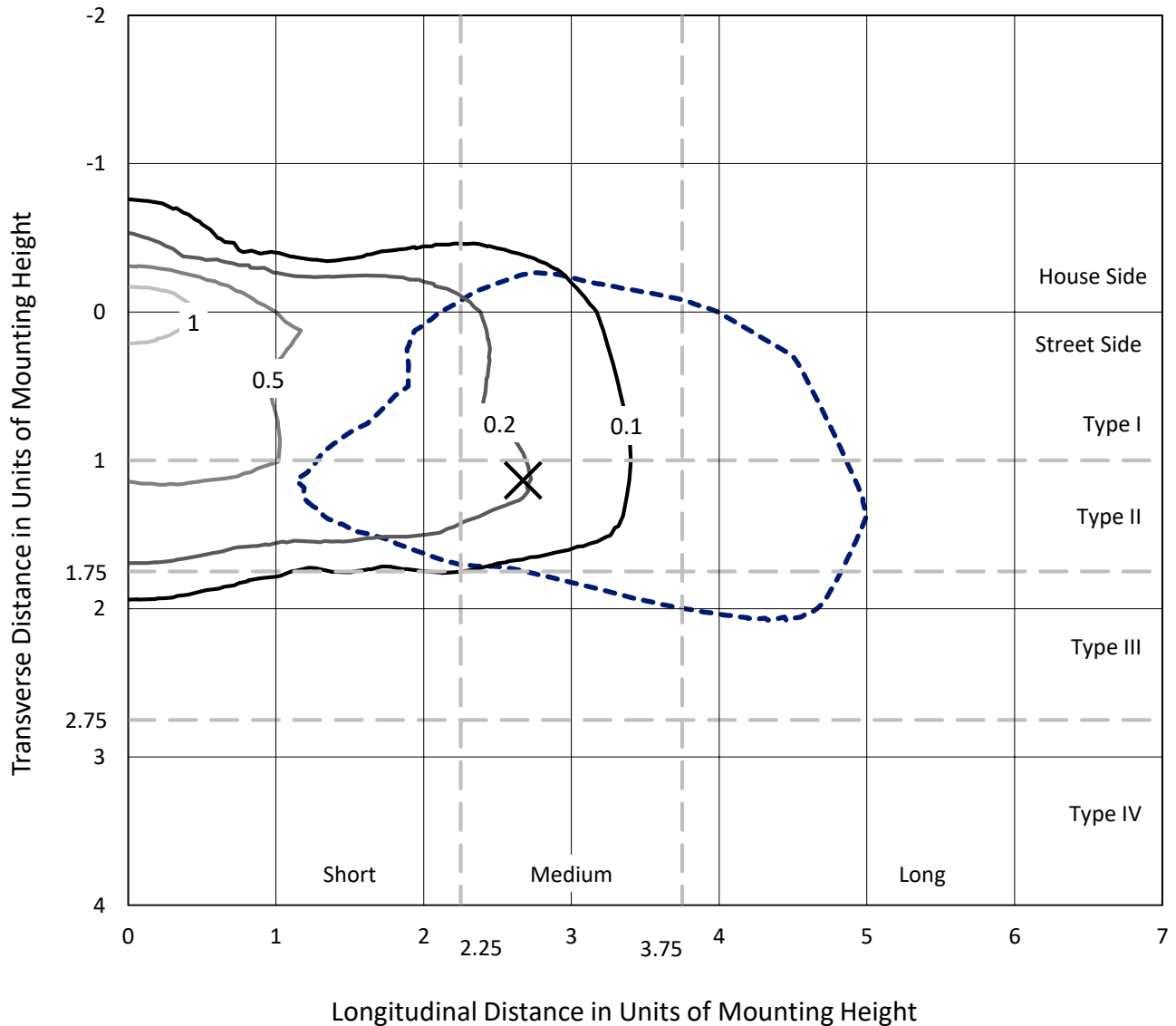
Input Watts (W): 13  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P400856  
 CATALOG NUMBER: ENT-SA1-830-U-SL2-XXB

### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

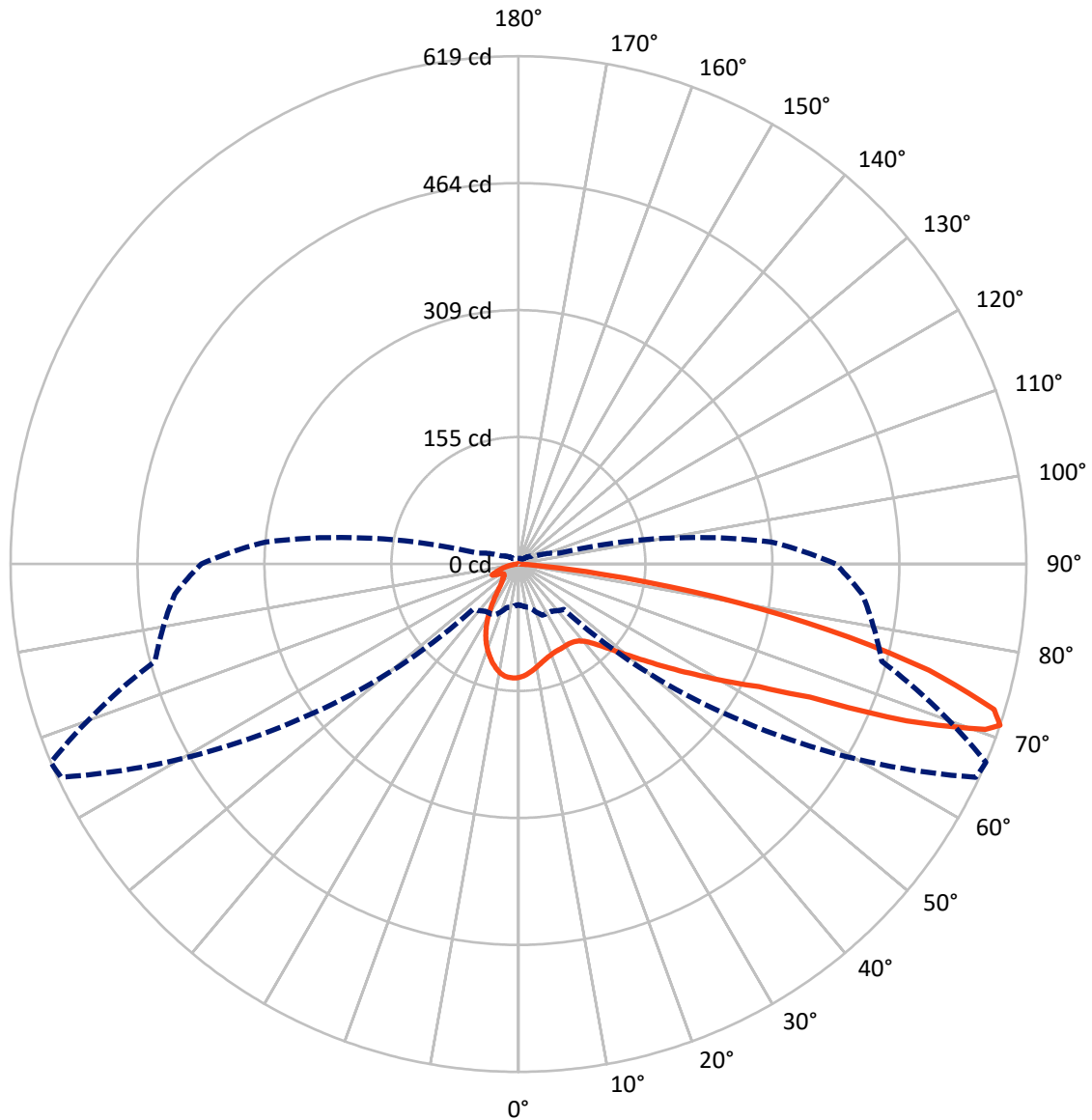


Based on 10 foot mounting height. Maximum calculated value = 1.4 fc  
 Type III - Medium - Non-Cutoff

REPORT NUMBER: P400856

CATALOG NUMBER: ENT-SA1-830-U-SL2-XXB

### Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral    - - - Horizontal Cone Through 71-Deg Vertical

REPORT NUMBER: P400856

CATALOG NUMBER: ENT-SA1-830-U-SL2-XXB

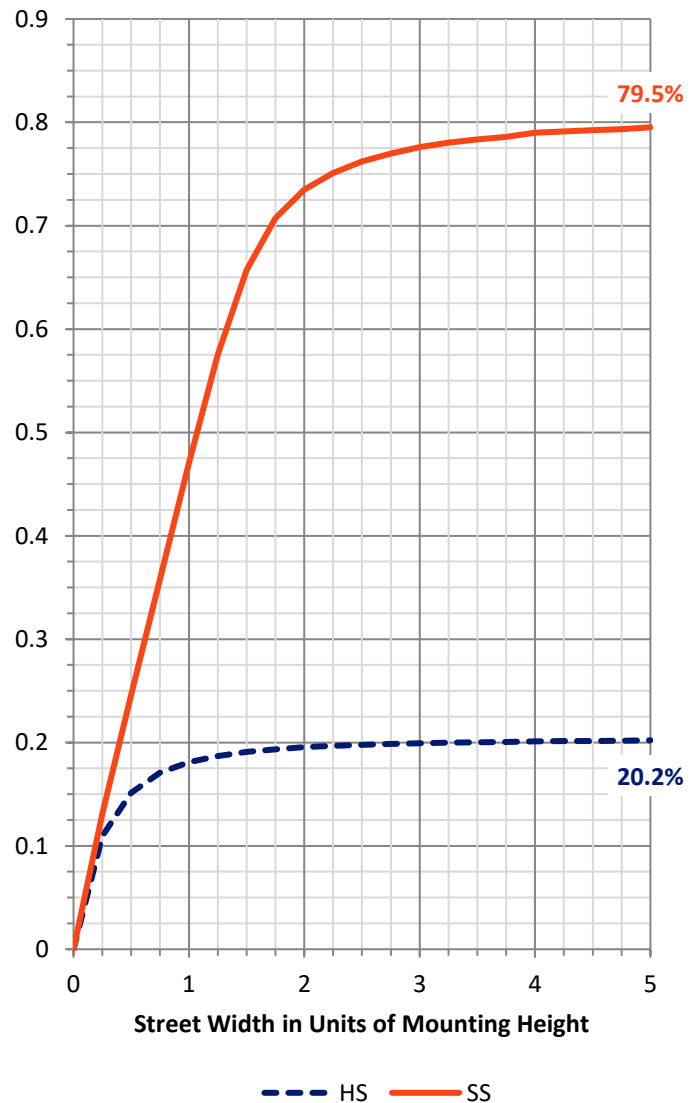
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	124.2	0.0	124.2
	% Fixture	20.5	0.0	20.5
<b>Street Side</b>	Lumens	481.9	0.0	481.9
	% Fixture	79.5	0.0	79.5
<b>Total</b>	Lumens	606.0	0.0	606.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	12.2	2.0
10°-20°	30.1	5.0
20°-30°	40.6	6.7
30°-40°	53.5	8.8
40°-50°	76.2	12.6
50°-60°	116.4	19.2
60°-70°	145.4	24.0
70°-80°	117.3	19.4
80°-90°	14.1	2.3
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°	606.0	100.0
0°-180°	606.0	100.0



REPORT NUMBER: P400856

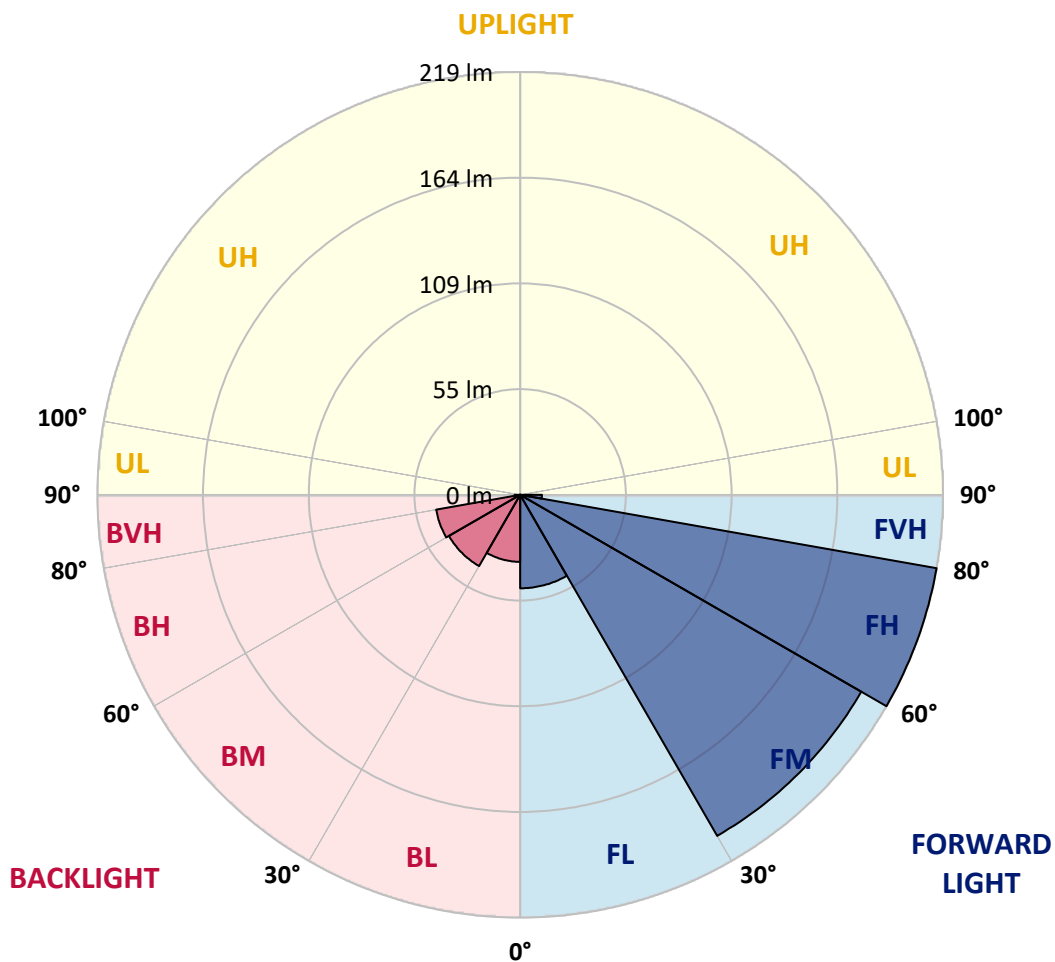
CATALOG NUMBER: ENT-SA1-830-U-SL2-XXB

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	48.3	8.0			
FM	(30°-60°)	203.6	33.6			
FH	(60°-80°)	218.6	36.1			G0/660
FVH	(80°-90°)	11.3	1.9			G1/100
BL	(0°-30°)	34.6	5.7	B0/110		
BM	(30°-60°)	42.5	7.0	B0/220		
BH	(60°-80°)	44.1	7.3	B0/110		G0/110
BVH	(80°-90°)	2.9	0.5			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 III Medium





REPORT NUMBER: P400856

CATALOG NUMBER: ENT-SA1-830-U-SL2-XXB

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	138.2	138.2	138.2	138.2	138.2	138.2	138.2	138.2	138.2	138.2	138.2
2.5°	130.3	130.9	131.0	132.3	132.7	134.1	134.9	136.2	136.4	137.1	137.7
5°	121.9	122.0	122.5	123.5	125.2	127.7	129.6	132.9	133.5	135.7	137.7
7.5°	114.3	114.7	115.6	117.2	119.1	122.0	125.0	129.5	130.3	134.0	137.8
10°	109.1	109.6	110.3	112.0	113.9	117.2	120.8	126.0	126.9	132.0	137.6
12.5°	105.0	105.5	106.0	107.9	110.0	113.3	117.0	122.7	123.7	129.5	137.0
15°	102.3	102.4	103.1	104.7	107.0	110.3	113.9	119.9	121.0	127.6	136.8
17.5°	100.7	100.8	101.5	102.7	104.8	107.9	111.5	117.5	118.8	126.1	136.9
20°	100.8	100.9	101.3	101.7	103.2	105.9	109.7	115.8	117.1	125.1	137.5
22.5°	102.6	102.7	102.8	102.2	102.7	104.6	108.3	114.5	115.9	124.7	138.2
25°	106.1	106.1	105.9	104.5	103.4	104.2	107.5	114.1	115.5	124.3	138.9
27.5°	110.9	111.2	110.4	108.7	106.1	104.8	107.3	113.8	115.2	124.3	139.2
30°	117.4	117.6	117.2	115.1	110.8	107.2	107.8	113.5	114.9	124.1	139.3
32.5°	124.1	124.6	125.0	123.1	117.9	111.6	109.9	113.8	115.1	124.1	139.1
35°	130.8	131.1	133.2	132.9	127.3	118.1	113.3	115.2	116.3	124.5	139.2
37.5°	136.5	137.3	140.4	142.7	138.4	127.0	119.2	118.3	118.9	126.7	140.2
40°	142.7	143.9	148.4	152.8	150.9	138.2	127.5	123.8	123.6	130.7	142.5
42.5°	149.7	151.0	156.9	163.3	163.9	152.4	138.5	131.6	131.4	137.6	147.7
45°	157.9	159.1	167.1	174.7	178.5	168.3	152.1	142.5	142.6	147.2	155.9
47.5°	168.0	169.9	177.6	187.4	194.1	186.2	168.6	157.9	157.2	161.7	169.3
50°	182.2	183.8	190.2	199.7	211.5	207.8	189.4	176.4	175.9	178.0	187.3
52.5°	197.2	197.7	200.7	210.6	230.4	234.1	215.0	199.3	197.3	198.5	209.6
55°	198.0	199.2	201.2	213.6	247.4	265.6	243.1	226.4	223.8	223.0	235.0
57.5°	179.9	181.7	184.3	200.5	248.1	301.9	283.2	258.0	253.3	249.3	262.1
60°	141.4	143.8	148.6	168.4	230.4	322.7	350.0	293.4	289.2	275.8	288.7
62.5°	102.2	103.2	107.8	116.7	182.8	323.9	419.6	339.6	329.2	301.7	311.5
65°	82.4	83.9	85.3	85.2	108.3	287.3	465.8	421.9	390.6	330.5	336.6
67.5°	67.9	68.4	71.8	77.7	73.6	177.4	470.5	542.1	510.3	369.5	366.5
70°	56.7	56.9	60.3	70.9	70.5	91.6	394.5	611.3	603.6	433.3	413.2
71°	49.6	51.1	54.9	68.7	70.1	78.3	335.2	614.9	618.8	458.3	420.4
72.5°	39.1	39.1	44.4	63.0	70.7	72.2	247.0	595.0	606.0	486.8	407.8
75°	22.9	22.8	25.6	43.9	72.3	72.0	134.9	494.5	516.9	491.9	377.5
77.5°	12.9	13.2	14.7	24.4	57.4	69.1	77.5	360.0	386.5	411.5	319.2
80°	5.9	6.3	7.4	11.9	33.8	59.7	55.3	233.8	243.8	247.3	150.8
82.5°	1.6	1.7	2.3	4.5	13.1	40.7	40.9	97.9	101.1	58.4	32.4
85°	0.0	0.0	0.0	0.0	0.2	5.0	11.6	17.6	14.7	7.8	6.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.3	0.3	0.3	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



REPORT NUMBER: P400856

CATALOG NUMBER: ENT-SA1-830-U-SL2-XXB

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	138.2	138.2	138.2	138.2	138.2	138.2	138.2	138.2	138.2	138.2	138.2
2.5°	138.1	138.4	139.1	139.0	138.8	137.7	138.4	137.7	137.7	137.4	137.5
5°	138.4	139.0	139.3	138.5	137.2	135.0	134.2	132.2	130.9	130.2	129.8
7.5°	139.0	139.3	139.1	137.0	133.6	129.3	125.6	122.7	119.7	119.2	119.0
10°	139.0	139.3	137.9	133.7	127.9	121.2	115.6	110.9	106.2	104.4	104.7
12.5°	138.6	138.8	135.6	128.8	120.4	111.2	103.4	95.6	89.6	85.9	85.2
15°	138.4	138.1	132.4	122.7	111.5	100.1	88.3	77.8	70.7	65.9	65.3
17.5°	138.4	137.4	128.7	115.8	101.8	86.2	70.5	59.1	51.2	48.4	48.3
20°	138.5	136.4	124.7	108.5	89.8	69.6	52.6	42.9	40.0	39.5	39.6
22.5°	138.7	135.1	120.3	100.3	76.3	51.9	37.6	34.1	34.4	35.4	35.3
25°	138.5	133.4	115.2	91.2	61.7	37.4	30.4	29.5	31.1	32.3	32.6
27.5°	138.1	131.1	109.7	80.3	47.0	29.5	26.5	26.4	28.0	29.1	29.1
30°	136.8	128.4	103.3	68.7	33.9	25.1	23.9	24.2	25.2	26.3	26.3
32.5°	135.4	125.4	96.6	56.2	26.1	22.8	22.3	22.4	23.1	23.9	23.8
35°	133.9	122.4	89.7	43.1	22.9	21.4	21.2	21.1	21.4	21.5	21.5
37.5°	133.0	119.8	82.1	32.5	21.1	20.5	20.2	19.8	19.7	19.5	19.4
40°	133.4	118.0	74.8	25.1	20.1	19.5	19.0	18.5	18.1	18.0	17.9
42.5°	135.8	117.5	66.6	21.6	19.1	18.7	18.0	17.1	16.7	16.7	16.7
45°	141.5	119.1	59.1	19.9	18.2	17.7	16.6	16.0	15.7	15.8	15.8
47.5°	150.4	123.5	52.3	19.0	17.6	16.8	15.5	14.9	14.7	14.8	14.8
50°	163.7	131.9	45.3	18.2	16.9	15.9	14.7	14.0	13.8	13.8	13.8
52.5°	183.3	145.7	40.2	17.7	16.3	15.1	14.0	13.2	12.8	12.8	12.7
55°	207.1	163.7	38.3	17.4	15.5	14.4	13.2	12.4	11.9	11.7	11.8
57.5°	233.2	186.9	41.1	17.3	14.7	13.6	12.4	11.4	10.9	10.8	10.7
60°	260.1	210.1	49.1	16.8	14.0	12.6	11.5	10.6	10.1	9.9	9.9
62.5°	283.3	233.1	62.4	16.5	13.4	11.8	10.6	9.8	9.3	9.1	9.1
65°	311.3	259.5	82.6	16.9	13.2	10.9	9.7	9.0	8.6	8.4	8.4
67.5°	349.5	298.7	98.0	19.0	13.8	10.2	8.7	8.2	7.9	7.8	7.8
70°	387.1	320.7	68.1	22.3	15.4	9.6	7.9	7.5	7.3	7.2	7.2
71°	386.5	308.9	51.2	23.1	15.9	9.4	7.5	7.2	7.1	7.0	6.9
72.5°	367.2	280.8	36.7	22.4	15.6	8.9	7.1	6.8	6.6	6.6	6.5
75°	329.3	247.5	28.7	18.8	13.1	7.9	6.3	6.1	5.9	5.8	5.9
77.5°	269.8	198.0	22.6	14.8	9.9	6.5	5.6	5.3	5.2	5.1	5.2
80°	124.0	86.3	16.5	11.5	7.4	5.2	4.7	4.6	4.5	4.4	4.4
82.5°	29.8	24.2	8.8	7.7	5.1	4.0	3.8	3.8	3.8	3.7	3.7
85°	6.5	6.5	3.6	3.6	3.1	2.8	3.0	3.0	3.0	2.8	2.8
87.5°	0.3	1.0	1.1	1.7	1.7	1.7	2.0	2.1	2.0	1.9	1.8
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)