

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: P400839

Luminaire Tested: **ENT-SA1-827-U-SL3-HSS-XXB**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400839
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-4)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1-827-U-SL3-HSS-XXB
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 2700K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE III SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 475 lumens
Efficiency: N/A
Efficacy: 36.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B0 - U0 - G0

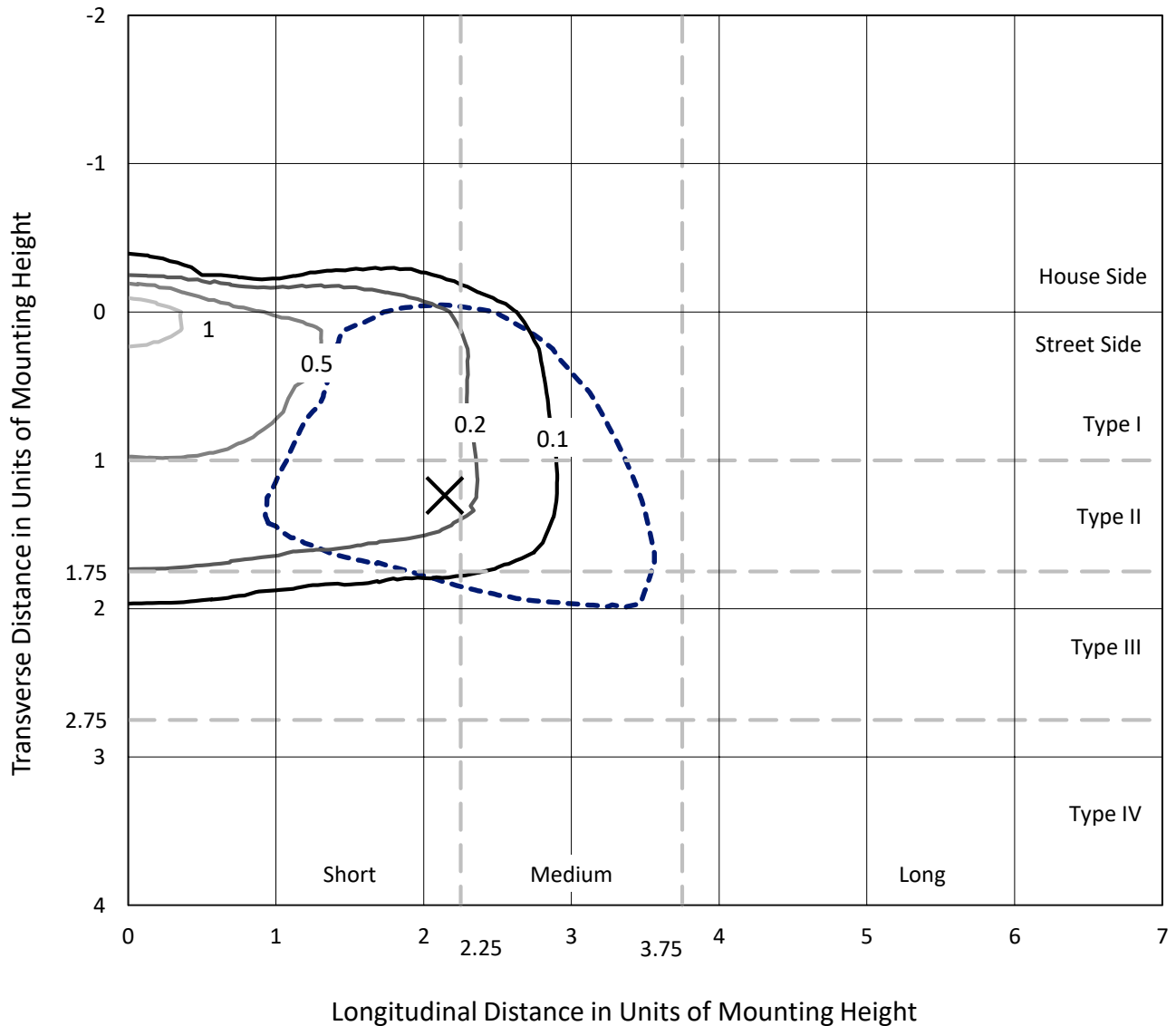
Input Watts (W): 13
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

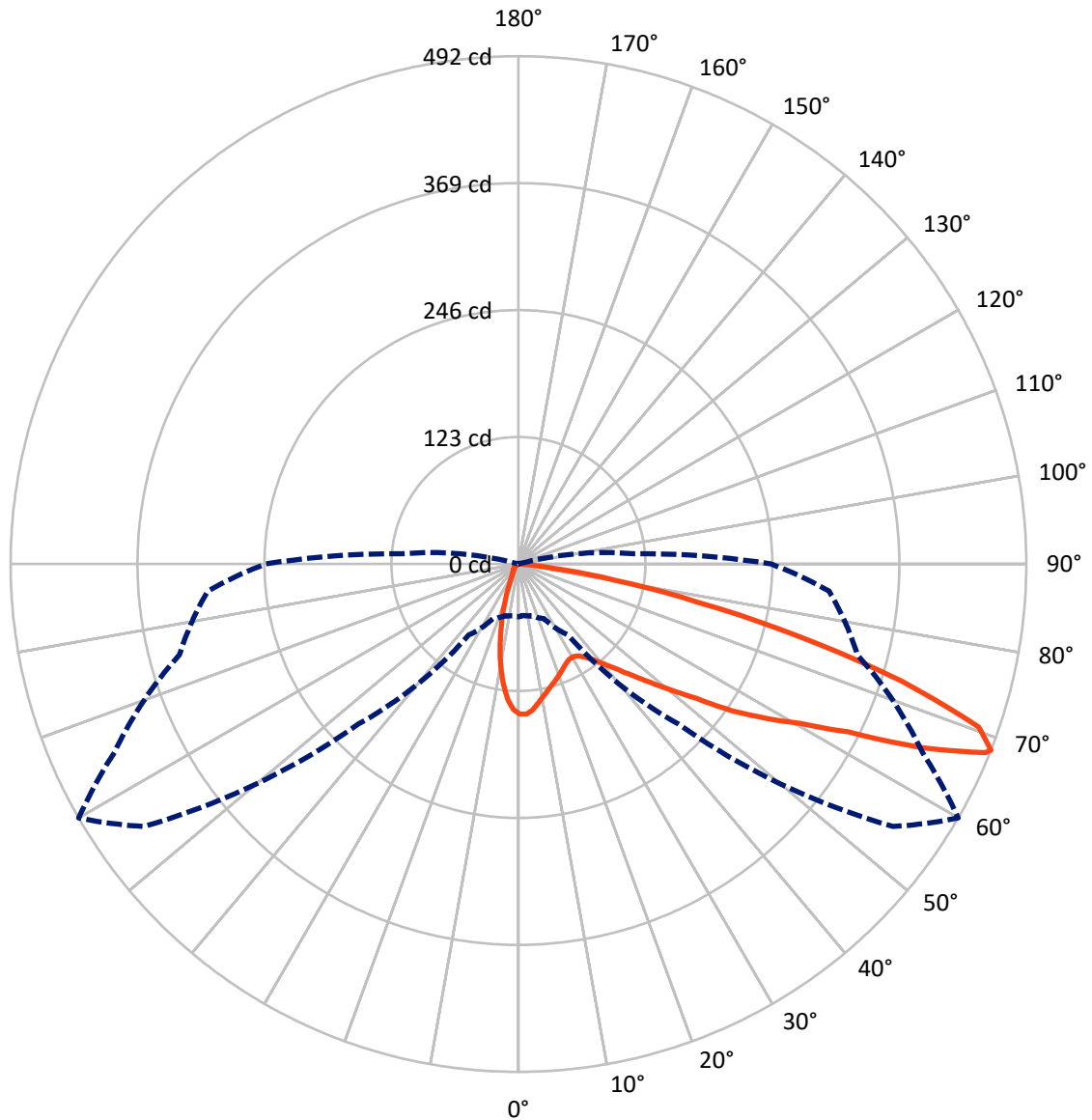
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 1.5 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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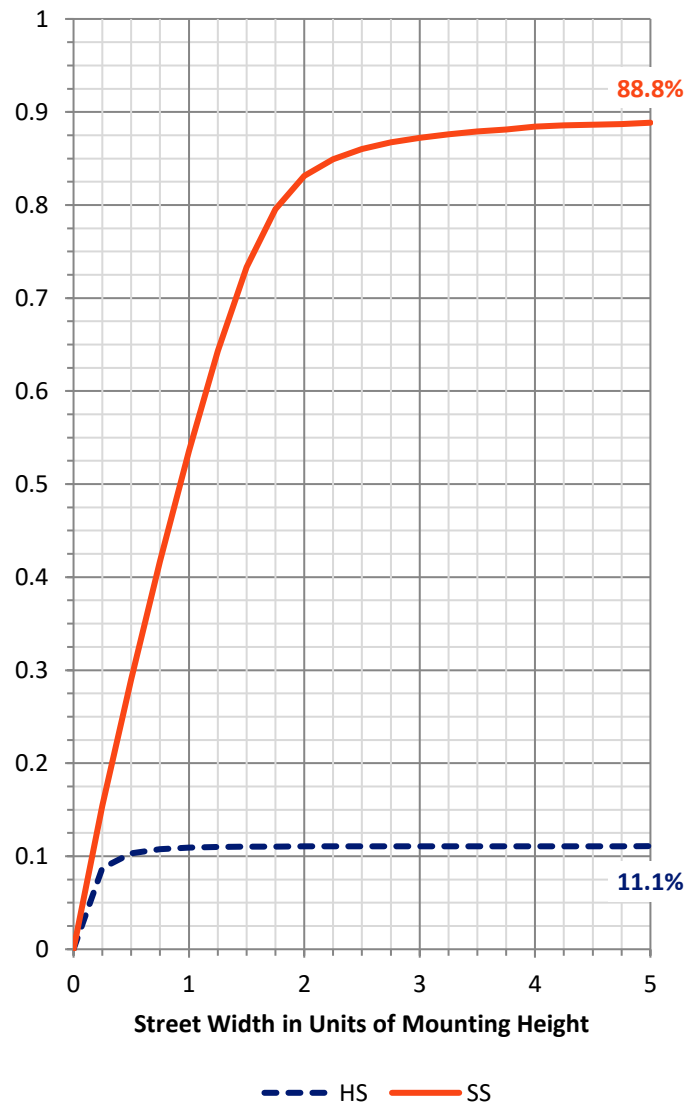
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	53.1	0.0	53.1
	% Fixture	11.2	0.0	11.2
Street Side	Lumens	421.9	0.0	421.9
	% Fixture	88.8	0.0	88.8
Total	Lumens	475.0	0.0	475.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	11.8	2.5
10°-20°	24.1	5.1
20°-30°	31.7	6.7
30°-40°	43.7	9.2
40°-50°	66.3	14.0
50°-60°	106.9	22.5
60°-70°	127.0	26.7
70°-80°	59.9	12.6
80°-90°	3.6	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°	475.0	100.0
0°-180°	475.0	100.0

Coefficient of Utilization



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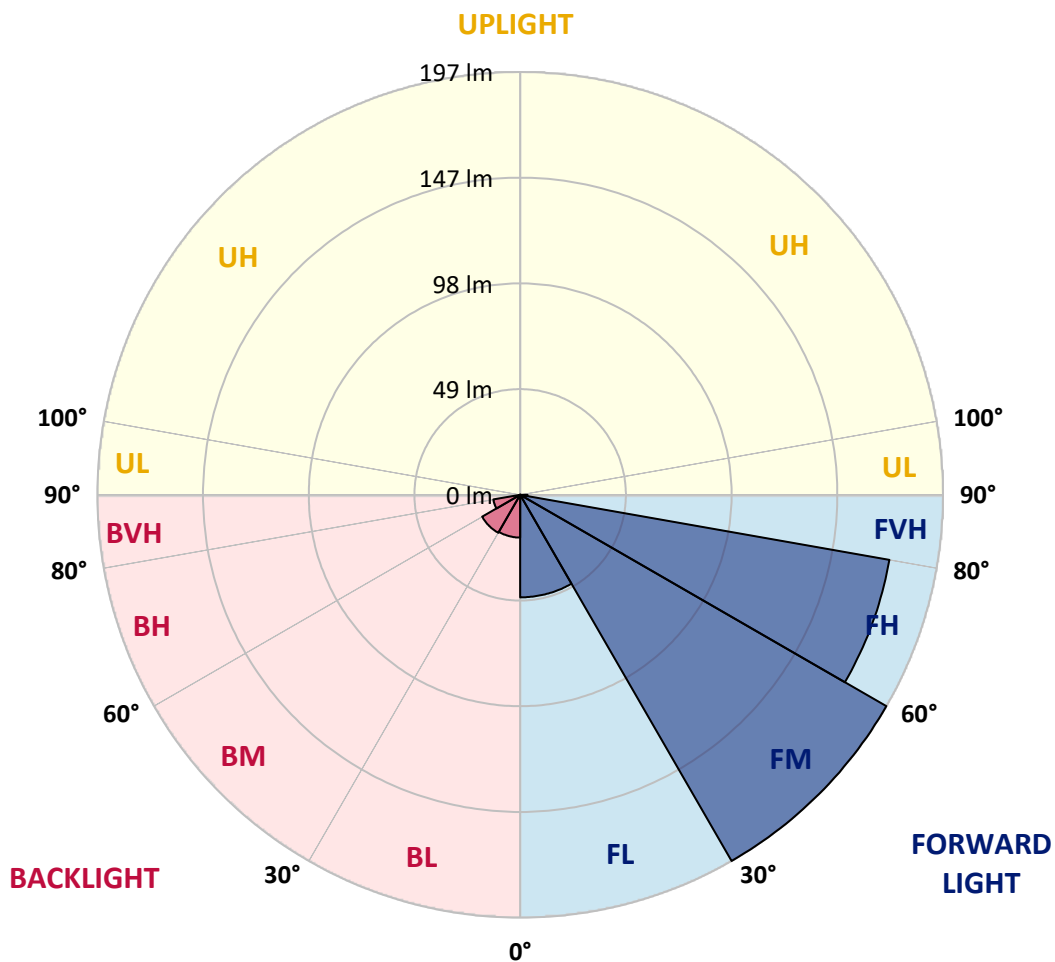
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	47.7	10.0			
FM	(30°-60°)	196.5	41.4			
FH	(60°-80°)	174.3	36.7			G0/660
FVH	(80°-90°)	3.4	0.7			G0/10
BL	(0°-30°)	19.9	4.2	B0/110		
BM	(30°-60°)	20.4	4.3	B0/220		
BH	(60°-80°)	12.7	2.7	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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	145.4	145.4	145.4	145.4	145.4	145.4	145.4	145.4	145.4	145.4	145.4
2.5°	144.1	143.8	144.7	144.9	145.2	145.6	145.6	145.6	145.7	145.6	144.6
5°	134.3	134.8	135.6	136.7	137.7	140.2	141.1	142.1	142.7	143.2	142.3
7.5°	124.6	125.7	126.4	128.3	129.9	132.4	134.5	136.2	137.8	139.6	138.7
10°	116.9	117.3	117.8	119.6	122.0	125.8	128.5	130.6	132.6	135.6	134.8
12.5°	109.3	109.5	110.7	112.6	115.1	119.8	123.4	125.8	128.0	131.7	131.8
15°	103.7	103.8	104.5	106.3	109.2	114.2	118.9	121.5	124.6	129.1	129.4
17.5°	100.1	100.0	100.2	101.3	104.0	108.8	114.4	117.6	121.2	127.0	127.3
20°	99.0	98.8	98.5	98.2	99.9	104.0	110.4	113.9	118.2	125.5	125.6
22.5°	99.9	99.6	98.9	97.5	98.0	100.7	106.0	110.2	115.4	124.7	124.1
25°	102.3	102.3	101.3	99.1	98.0	98.6	102.8	106.9	112.7	124.3	123.1
27.5°	106.1	106.0	104.7	102.4	100.3	98.8	100.9	104.7	110.7	124.8	122.6
30°	110.8	110.3	109.0	107.4	104.8	101.5	101.3	104.1	109.7	126.3	122.9
32.5°	115.2	115.2	114.7	113.2	110.7	106.3	103.8	106.1	110.9	128.8	124.0
35°	120.7	120.6	120.8	120.2	118.1	113.5	109.4	110.6	114.6	133.0	126.5
37.5°	125.1	125.2	126.5	127.5	126.5	121.7	117.5	117.5	120.9	139.3	130.7
40°	129.4	129.5	132.1	134.9	135.2	131.3	127.3	127.2	129.1	147.0	137.3
42.5°	133.2	133.9	137.6	142.4	145.2	142.7	139.7	138.7	139.7	158.7	148.1
45°	137.3	138.6	143.8	150.8	155.4	155.5	154.3	153.2	153.7	171.8	162.4
47.5°	142.7	144.1	150.6	159.2	167.9	170.1	171.2	170.8	169.5	188.4	180.9
50°	151.3	152.6	158.7	168.4	180.3	188.4	191.3	191.7	190.0	206.8	202.0
52.5°	165.9	166.7	172.4	180.0	193.4	208.7	216.1	216.2	212.4	228.3	224.7
55°	181.7	183.8	190.4	199.2	213.0	230.1	248.6	250.6	239.0	247.2	241.3
57.5°	181.9	183.9	194.9	211.9	240.7	263.4	279.9	281.4	268.4	262.3	256.9
60°	162.7	163.8	179.0	203.9	250.6	308.3	315.5	313.4	289.0	278.0	276.5
62.5°	114.8	115.3	133.4	166.2	228.7	329.7	369.8	358.1	318.3	301.0	305.9
65°	72.3	72.1	79.5	105.7	170.1	308.6	436.8	428.3	372.3	329.9	328.7
67.5°	53.4	52.1	54.1	62.2	97.2	242.3	449.2	487.7	423.6	341.9	308.9
68°	51.2	50.0	52.1	58.4	84.1	219.3	443.2	491.9	431.7	339.9	302.1
70°	43.4	42.4	44.2	48.9	58.5	142.3	391.0	473.0	439.2	323.5	266.3
72.5°	30.9	31.4	36.1	42.0	49.6	73.0	288.0	388.5	377.7	287.7	202.6
75°	18.3	19.3	25.5	33.8	45.5	48.2	185.8	282.4	277.2	199.2	109.8
77.5°	6.4	6.9	12.7	22.6	37.6	38.2	103.5	177.5	165.1	81.4	32.4
80°	2.3	2.3	4.7	12.6	24.3	29.2	55.0	94.8	65.2	21.1	8.9
82.5°	0.4	0.4	1.0	4.3	10.7	15.6	25.5	33.7	19.3	4.7	4.4
85°	0.0	0.0	0.0	0.0	0.2	0.2	7.5	7.6	3.5	0.6	1.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.2	0.2	0.2
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°	145.4	145.4	145.4	145.4	145.4	145.4	145.4	145.4	145.4	145.4	145.4
2.5°	144.2	144.0	143.1	141.5	140.2	137.9	137.5	135.3	134.5	133.9	134.5
5°	141.7	140.8	137.8	134.2	129.3	123.5	120.1	115.4	114.4	111.9	113.4
7.5°	137.6	135.6	130.0	122.2	113.2	104.3	97.5	91.0	85.4	83.5	82.9
10°	133.2	130.4	121.1	109.0	95.9	82.3	72.2	62.8	57.5	52.6	52.5
12.5°	129.1	124.8	111.3	94.5	76.2	60.0	47.0	37.1	30.9	27.5	28.4
15°	125.8	120.1	101.5	79.9	56.9	38.7	26.6	20.2	18.1	17.0	17.2
17.5°	122.6	115.0	92.0	64.8	40.5	23.9	17.2	15.1	14.4	14.2	14.0
20°	119.7	110.1	82.0	51.1	26.8	16.5	14.2	13.5	13.2	13.1	13.1
22.5°	116.8	104.9	72.0	37.9	18.3	13.5	12.7	12.4	12.3	12.0	12.0
25°	114.1	99.9	62.0	26.5	14.0	12.1	11.5	11.2	10.9	10.6	10.6
27.5°	112.1	96.1	52.7	18.8	11.8	10.9	10.3	9.8	9.3	9.0	9.0
30°	110.8	92.4	43.8	14.2	10.5	9.7	8.9	8.2	7.6	7.2	7.1
32.5°	110.1	89.4	35.5	11.6	9.3	8.5	7.6	6.8	6.0	5.6	5.6
35°	110.4	87.0	27.2	9.8	8.5	7.4	6.4	5.5	4.8	4.4	4.4
37.5°	112.5	85.6	20.2	8.7	7.6	6.4	5.5	4.5	3.9	3.5	3.5
40°	116.5	85.9	15.4	7.9	6.9	5.6	4.5	3.7	3.1	2.8	2.8
42.5°	124.4	88.3	12.2	7.3	6.2	4.8	3.8	3.1	2.6	2.3	2.3
45°	135.0	92.7	10.0	6.7	5.5	4.1	3.2	2.6	2.1	1.9	1.9
47.5°	151.0	99.8	8.6	6.1	4.8	3.5	2.7	2.1	1.6	1.5	1.4
50°	169.4	109.7	7.6	5.5	4.2	2.9	2.3	1.6	1.3	1.0	1.0
52.5°	188.3	120.7	6.9	4.9	3.6	2.5	1.8	1.2	0.9	0.7	0.7
55°	205.6	130.0	6.1	4.4	3.1	2.1	1.5	1.0	0.6	0.5	0.5
57.5°	222.4	138.5	5.3	3.9	2.5	1.7	1.1	0.7	0.5	0.3	0.3
60°	243.4	149.4	4.6	3.3	2.0	1.4	0.9	0.6	0.3	0.2	0.2
62.5°	268.8	157.4	3.9	2.7	1.6	1.0	0.6	0.4	0.2	0.1	0.1
65°	278.1	146.8	3.2	2.2	1.3	0.8	0.5	0.3	0.2	0.1	0.1
67.5°	252.0	118.3	2.6	1.7	1.0	0.6	0.4	0.2	0.2	0.1	0.1
68°	244.8	112.5	2.5	1.6	0.9	0.6	0.3	0.2	0.1	0.1	0.0
70°	206.6	90.3	2.0	1.2	0.7	0.5	0.3	0.2	0.1	0.1	0.0
72.5°	153.2	62.3	1.5	0.8	0.5	0.3	0.2	0.2	0.1	0.1	0.0
75°	80.8	24.3	1.1	0.6	0.4	0.3	0.2	0.2	0.2	0.1	0.1
77.5°	23.2	7.7	0.9	0.5	0.4	0.4	0.4	0.3	0.3	0.2	0.2
80°	6.8	2.5	0.6	0.3	0.4	0.4	0.5	0.4	0.4	0.3	0.3
82.5°	3.6	1.0	0.3	0.2	0.2	0.3	0.4	0.3	0.2	0.2	0.1
85°	1.5	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1
87.5°	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
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)