

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: P400841

Luminaire Tested: **ENV-SA1-827-U-SL4-HSS-XXB**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400841
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: ENV-SA1-827-U-SL4-HSS-XXB
Description: ENTRI LED LUMINAIRE
(1) 80 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: 466 lumens
Efficiency: N/A
Efficacy: 35.8 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

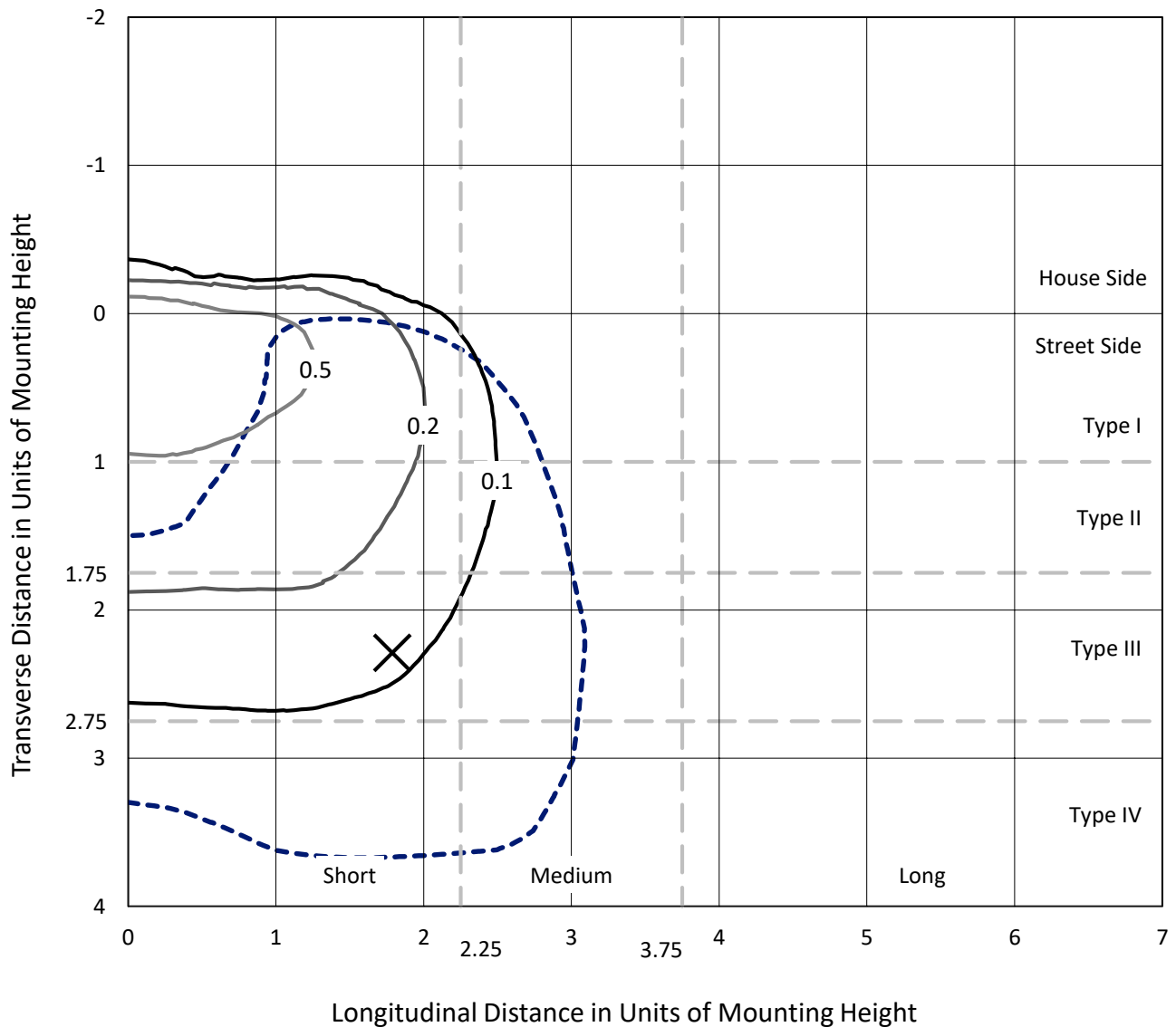
Input Watts (W): 13
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

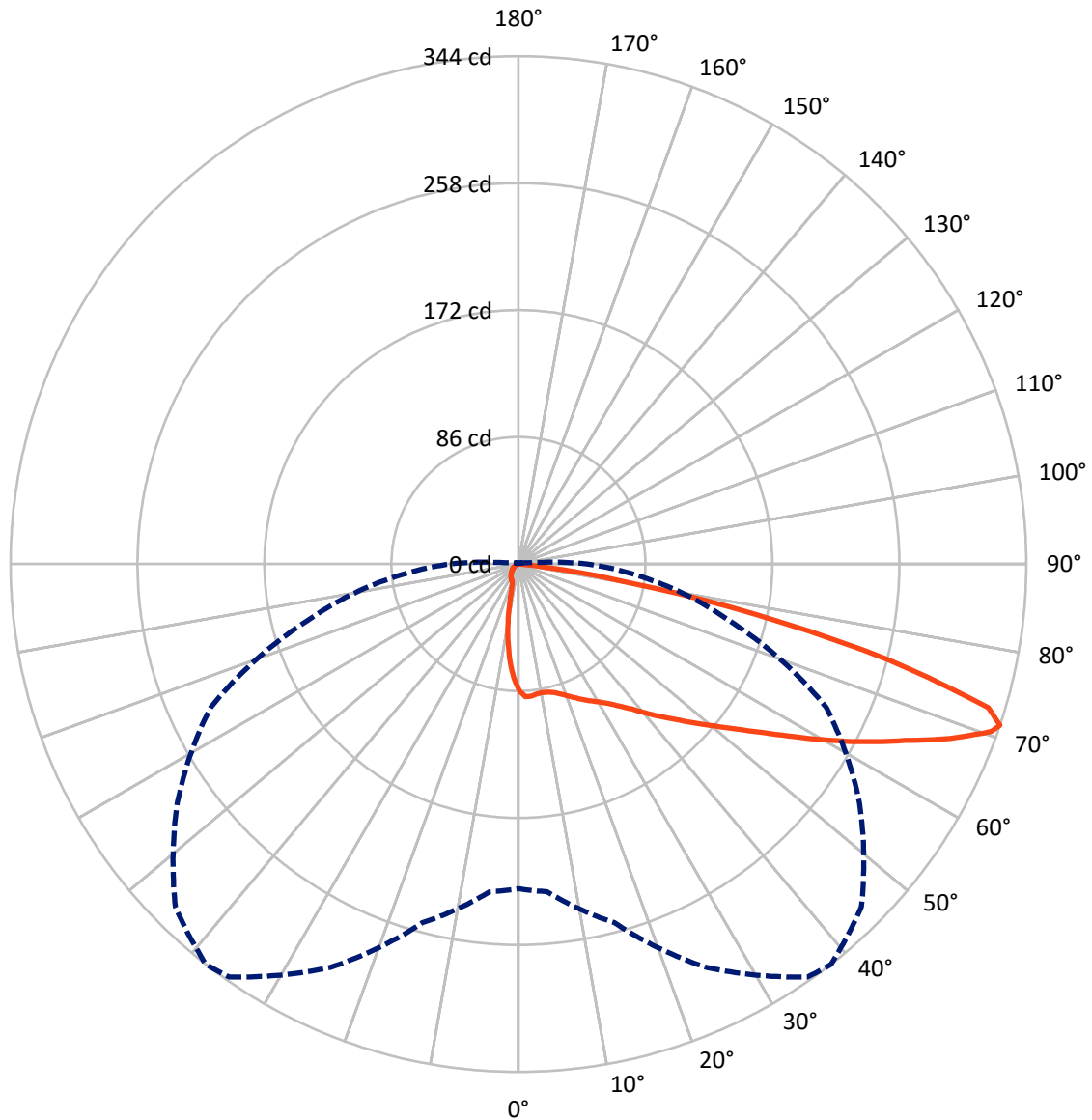
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 0.9 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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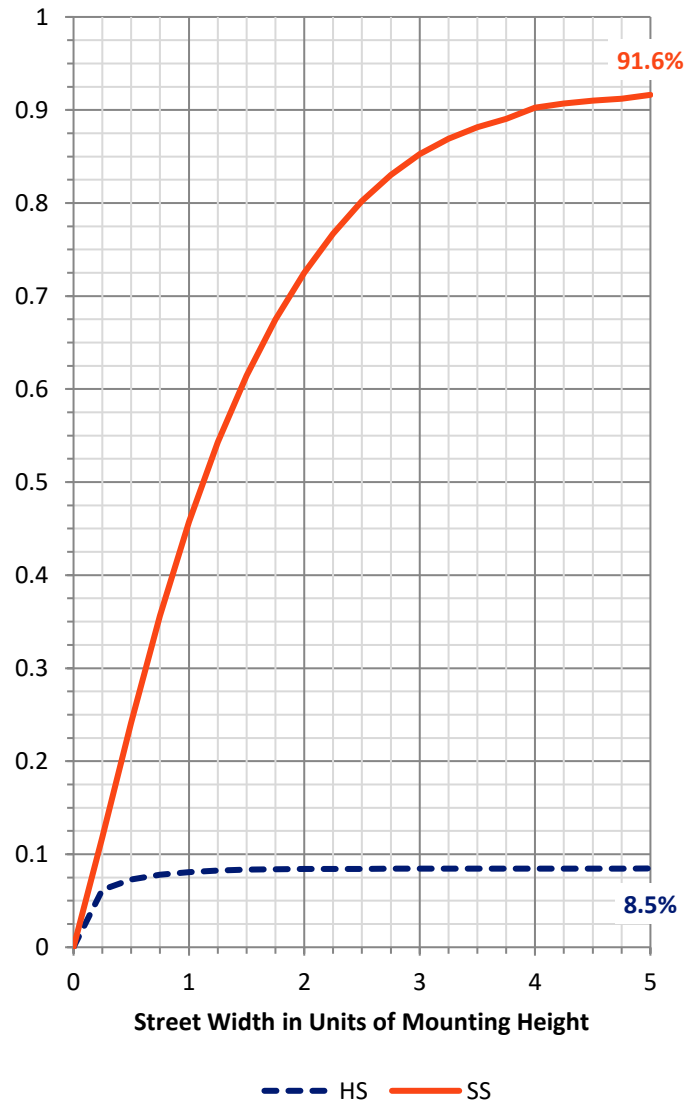
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	39.8	0.0	39.8
	% Fixture	8.5	0.0	8.5
Street Side	Lumens	426.2	0.0	426.2
	% Fixture	91.5	0.0	91.5
Total	Lumens	466.0	0.0	466.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	7.3	1.6
10°-20°	17.6	3.8
20°-30°	28.2	6.0
30°-40°	42.9	9.2
40°-50°	66.8	14.3
50°-60°	97.7	21.0
60°-70°	125.3	26.9
70°-80°	76.6	16.4
80°-90°	3.8	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°	466.0	100.0
0°-180°	466.0	100.0



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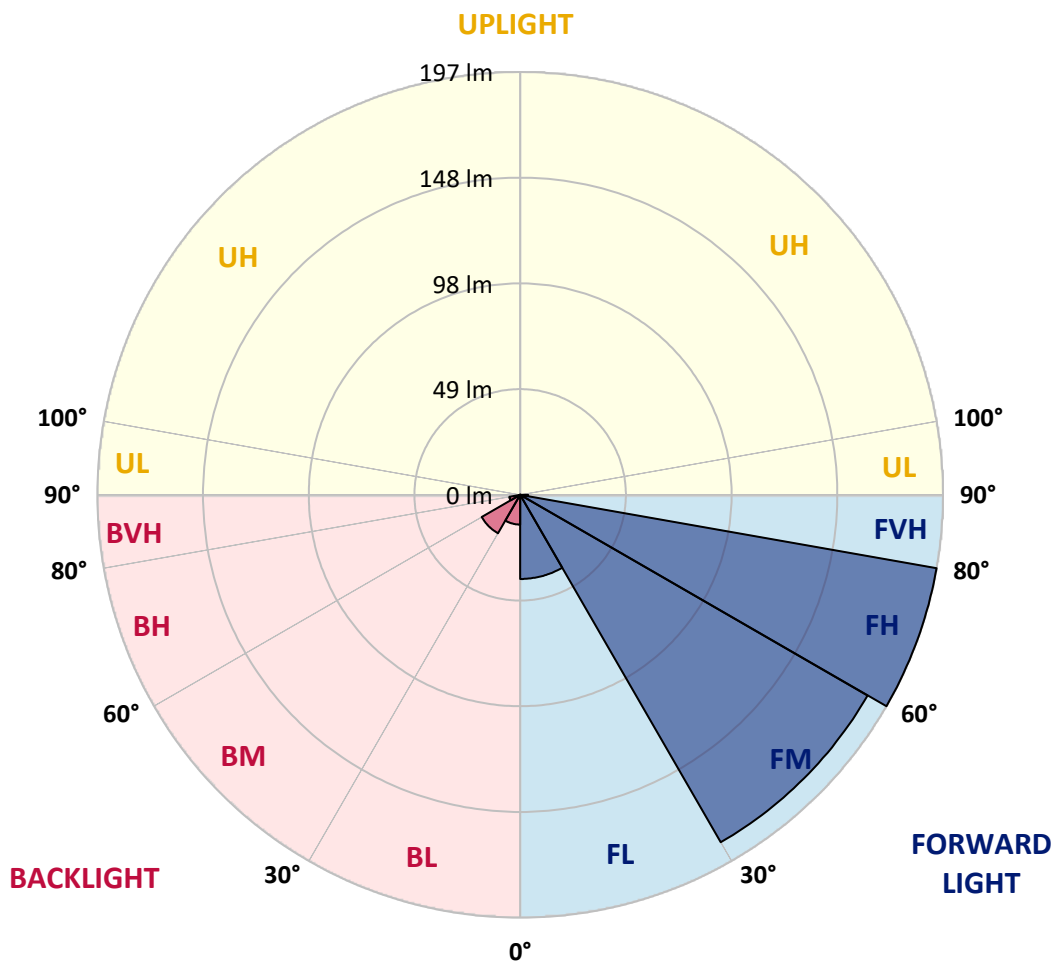
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	39.2	8.4			
FM	(30°-60°)	186.6	40.1			
FH	(60°-80°)	196.7	42.2			G0/660
FVH	(80°-90°)	3.7	0.8			G0/10
BL	(0°-30°)	13.8	3.0	B0/110		
BM	(30°-60°)	20.7	4.4	B0/220		
BH	(60°-80°)	5.1	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9
2.5°	91.0	90.8	91.0	90.8	90.3	90.0	89.7	88.8	88.0	87.0	85.6
5°	91.2	91.0	91.0	90.7	90.1	89.9	89.5	88.7	87.6	86.2	84.0
7.5°	90.3	90.2	90.0	89.7	89.1	88.9	88.7	87.6	86.6	85.0	82.4
10°	88.8	89.0	88.9	88.9	88.7	88.5	88.3	87.1	86.0	84.2	81.4
12.5°	87.4	87.6	88.0	88.7	88.9	89.0	89.0	87.8	86.4	84.5	81.5
15°	86.6	86.9	88.0	89.3	90.0	90.3	90.5	89.2	87.6	85.5	82.4
17.5°	86.3	86.8	89.0	91.0	92.4	92.5	92.5	90.9	89.2	86.8	83.5
20°	87.1	87.8	90.6	93.4	95.1	95.3	95.0	92.9	90.8	88.2	84.4
22.5°	89.5	90.1	93.3	96.6	98.3	98.4	97.7	94.8	92.6	90.4	85.6
25°	93.7	94.1	97.5	100.7	101.6	101.8	100.6	97.1	94.6	92.6	87.3
27.5°	99.3	99.5	102.6	105.0	105.1	105.0	103.8	100.1	97.6	95.9	89.9
30°	105.1	105.4	108.0	109.5	108.8	108.5	107.4	103.5	101.2	100.0	93.6
32.5°	110.5	110.8	113.6	114.4	113.0	112.7	111.9	107.8	105.9	106.5	98.9
35°	115.9	115.9	119.1	119.5	118.2	118.2	118.2	113.3	113.0	115.1	106.3
37.5°	120.6	121.4	124.8	124.7	124.4	124.6	125.1	121.4	122.5	126.2	116.1
40°	124.7	125.7	130.2	130.6	131.7	132.6	133.3	131.4	134.0	140.1	128.6
42.5°	128.3	129.5	135.3	137.2	140.1	141.3	142.7	142.2	148.1	159.1	144.6
45°	133.0	134.3	140.2	144.7	148.7	150.3	153.4	155.5	165.3	177.9	161.9
47.5°	139.2	140.1	145.6	152.6	158.1	161.0	165.8	171.2	183.0	197.7	177.3
50°	147.7	147.8	151.9	161.0	169.2	172.3	180.5	187.6	202.4	215.3	188.4
52.5°	157.0	156.6	159.8	171.3	181.7	185.9	195.6	205.4	220.3	227.9	193.5
55°	165.9	166.2	168.2	182.3	197.4	201.5	213.8	223.7	236.7	235.7	196.2
57.5°	176.2	176.1	178.7	194.3	215.8	220.6	233.4	241.6	246.7	241.3	196.7
60°	185.9	185.6	189.6	208.7	235.4	242.5	254.0	253.7	256.6	244.8	196.3
62.5°	194.5	195.1	202.0	225.4	257.4	265.0	270.8	266.8	267.6	248.9	191.3
65°	205.0	206.1	217.3	245.7	284.5	288.2	290.4	283.9	275.8	245.6	176.1
67.5°	218.2	221.4	237.2	275.6	312.8	315.3	315.4	294.2	275.5	228.9	148.1
70°	223.5	226.8	252.0	299.2	336.6	339.8	329.9	292.6	253.8	179.2	100.0
71°	219.9	222.8	251.6	301.5	341.5	344.0	328.6	282.0	230.1	147.7	77.4
72.5°	193.6	201.4	236.1	287.3	332.7	332.8	307.7	257.1	183.0	92.2	38.9
75°	104.6	113.9	173.0	218.6	256.7	258.7	236.7	178.5	88.6	23.9	9.4
77.5°	34.5	38.8	77.6	113.5	161.0	164.1	144.8	79.3	27.9	8.1	4.9
80°	21.6	22.1	26.2	47.7	71.6	74.3	59.6	32.1	12.6	4.4	3.4
82.5°	3.6	4.4	12.4	14.0	25.3	20.0	13.6	16.4	5.9	2.0	2.9
85°	0.0	0.0	0.1	0.1	0.4	0.1	0.1	3.3	0.3	0.3	1.5
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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9
2.5°	84.9	84.3	83.0	81.6	79.9	78.5	78.0	76.9	76.5	76.1	76.1
5°	82.6	81.5	78.7	75.9	73.2	70.2	67.6	65.1	63.9	62.2	63.0
7.5°	80.7	78.7	74.8	70.4	64.8	59.0	54.6	50.7	47.5	46.4	45.7
10°	79.3	76.9	71.2	64.4	56.2	48.0	41.2	34.8	31.1	28.8	28.8
12.5°	79.1	76.1	68.7	58.3	46.4	35.4	26.9	20.8	17.8	16.5	16.4
15°	79.7	76.0	66.4	52.7	37.5	24.5	16.8	14.1	13.4	13.2	13.2
17.5°	80.2	75.9	63.8	46.4	27.6	16.1	13.3	12.8	12.7	12.6	12.6
20°	80.7	75.5	60.7	39.3	19.5	13.2	12.4	12.2	12.1	12.0	12.0
22.5°	81.3	75.1	57.6	31.2	14.5	12.3	11.9	11.6	11.5	11.5	11.5
25°	82.2	74.8	53.7	23.7	12.4	11.6	11.2	11.1	11.1	11.0	11.0
27.5°	83.9	75.1	49.5	17.0	11.6	11.0	10.7	10.6	10.6	10.5	10.5
30°	86.2	75.8	44.2	13.2	11.0	10.3	10.1	10.0	9.9	9.9	9.9
32.5°	89.5	76.9	38.5	11.3	10.2	9.7	9.4	9.4	9.4	9.4	9.3
35°	94.6	79.3	31.5	10.3	9.4	9.0	8.7	8.7	8.7	8.6	8.7
37.5°	102.4	83.1	24.4	9.5	8.6	8.2	8.1	8.0	8.0	8.0	8.0
40°	112.1	89.2	17.8	8.8	7.9	7.5	7.3	7.3	7.2	7.2	7.2
42.5°	124.7	96.0	12.9	8.0	7.3	6.9	6.7	6.5	6.4	6.3	6.3
45°	137.8	104.1	10.1	7.3	6.6	6.3	6.1	5.9	5.7	5.4	5.4
47.5°	150.5	110.3	8.6	6.6	6.1	5.7	5.6	5.2	4.8	4.6	4.6
50°	158.5	112.2	7.8	6.0	5.5	5.2	5.0	4.6	4.0	3.8	3.8
52.5°	161.0	108.7	6.9	5.4	5.0	4.8	4.4	3.9	3.3	3.0	3.0
55°	162.0	101.8	6.1	5.0	4.5	4.2	3.8	3.2	2.7	2.3	2.3
57.5°	160.8	92.1	5.5	4.5	4.0	3.7	3.2	2.6	2.0	1.8	1.8
60°	156.6	78.1	4.9	4.0	3.6	3.1	2.7	2.0	1.5	1.2	1.3
62.5°	145.5	60.4	4.3	3.4	3.1	2.7	2.1	1.5	1.0	0.8	0.8
65°	127.7	41.8	3.6	2.8	2.6	2.2	1.6	1.0	0.6	0.5	0.5
67.5°	103.8	27.0	2.8	2.3	2.2	1.8	1.2	0.6	0.3	0.3	0.2
70°	65.2	13.4	2.3	1.8	1.8	1.4	0.9	0.4	0.2	0.2	0.2
71°	46.1	9.1	2.0	1.6	1.6	1.3	0.8	0.3	0.2	0.2	0.2
72.5°	20.8	5.7	1.7	1.5	1.4	1.0	0.7	0.3	0.3	0.3	0.3
75°	6.5	3.1	1.2	1.1	1.1	0.9	0.6	0.4	0.4	0.4	0.4
77.5°	4.4	2.4	0.8	0.7	0.9	0.9	0.6	0.5	0.5	0.5	0.5
80°	3.6	1.3	0.5	0.5	0.6	0.8	0.6	0.5	0.6	0.5	0.5
82.5°	3.5	0.6	0.2	0.2	0.4	0.5	0.5	0.4	0.5	0.5	0.5
85°	1.5	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.4
87.5°	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.3	0.3
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)