

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: P400850

Luminaire Tested: **ENV-SA1-827-U-T3-XXB**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400850
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-13)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1-827-U-T3-XXB
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 2700K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 578 lumens
Efficiency: N/A
Efficacy: 44.5 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

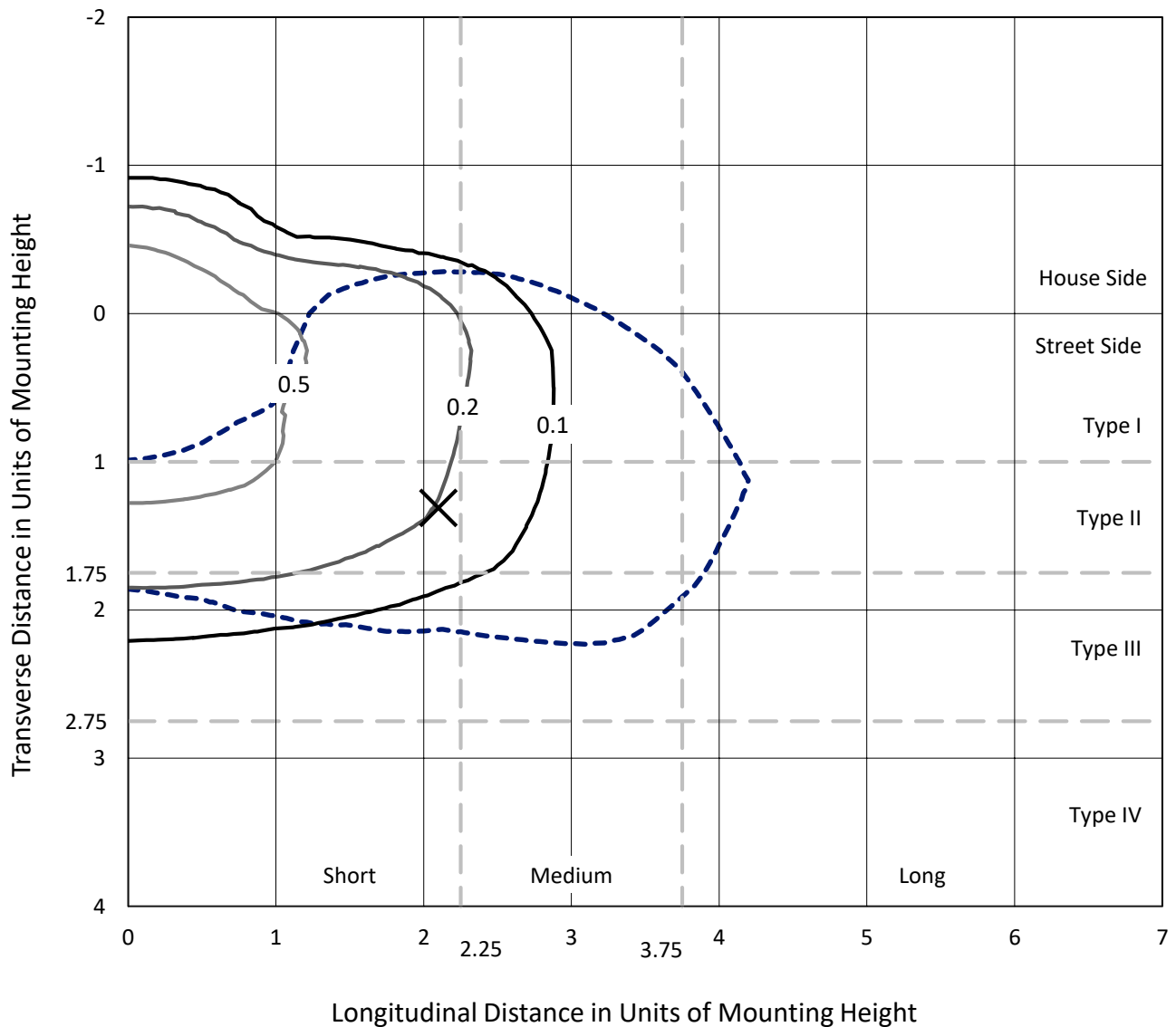


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Iso-Footcandle Lines of Horizontal Illumination

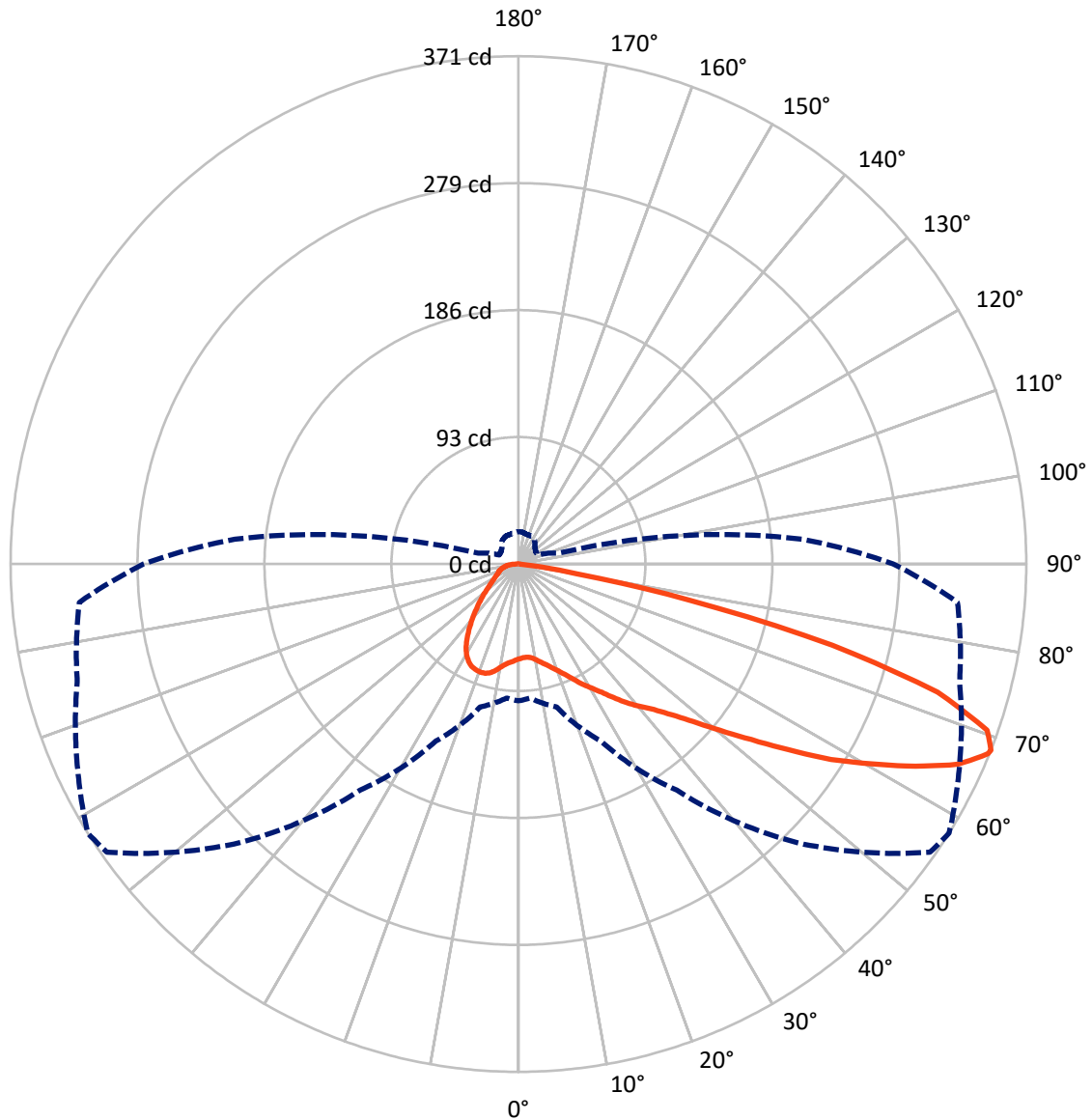
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 0.8 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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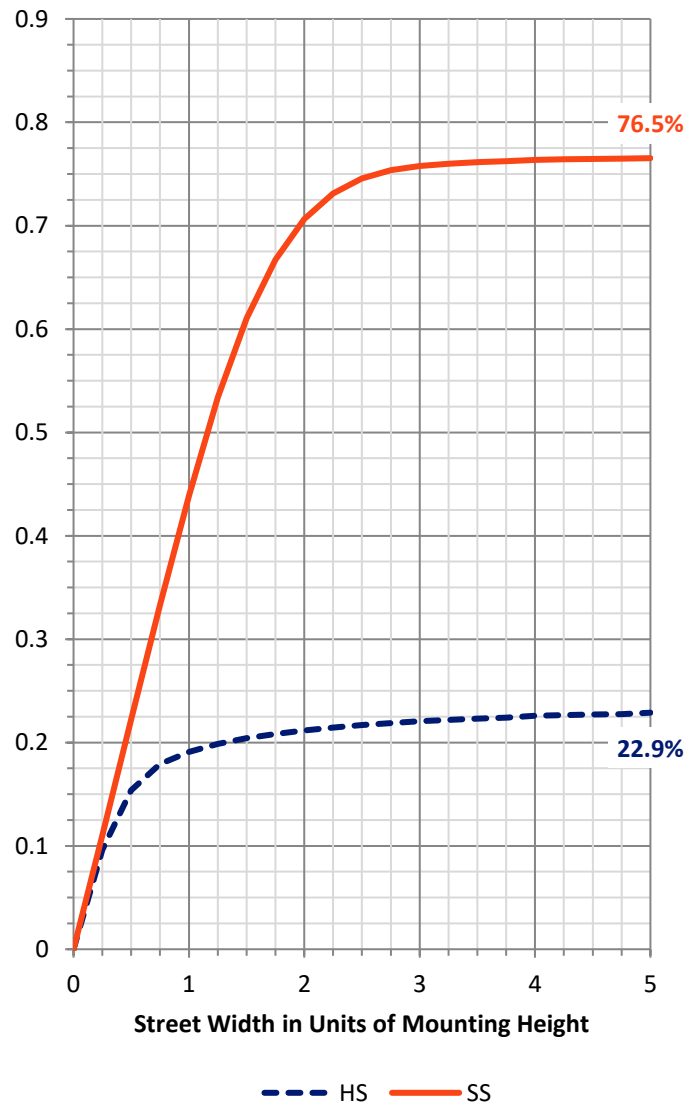
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	135.3	0.0	135.3
	% Fixture	23.4	0.0	23.4
Street Side	Lumens	442.7	0.0	442.7
	% Fixture	76.6	0.0	76.6
Total	Lumens	578.0	0.0	578.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	6.8	1.2
10°-20°	22.4	3.9
20°-30°	40.2	7.0
30°-40°	59.1	10.2
40°-50°	86.6	15.0
50°-60°	129.5	22.4
60°-70°	151.4	26.2
70°-80°	74.7	12.9
80°-90°	7.3	1.3
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°	578.0	100.0
0°-180°	578.0	100.0



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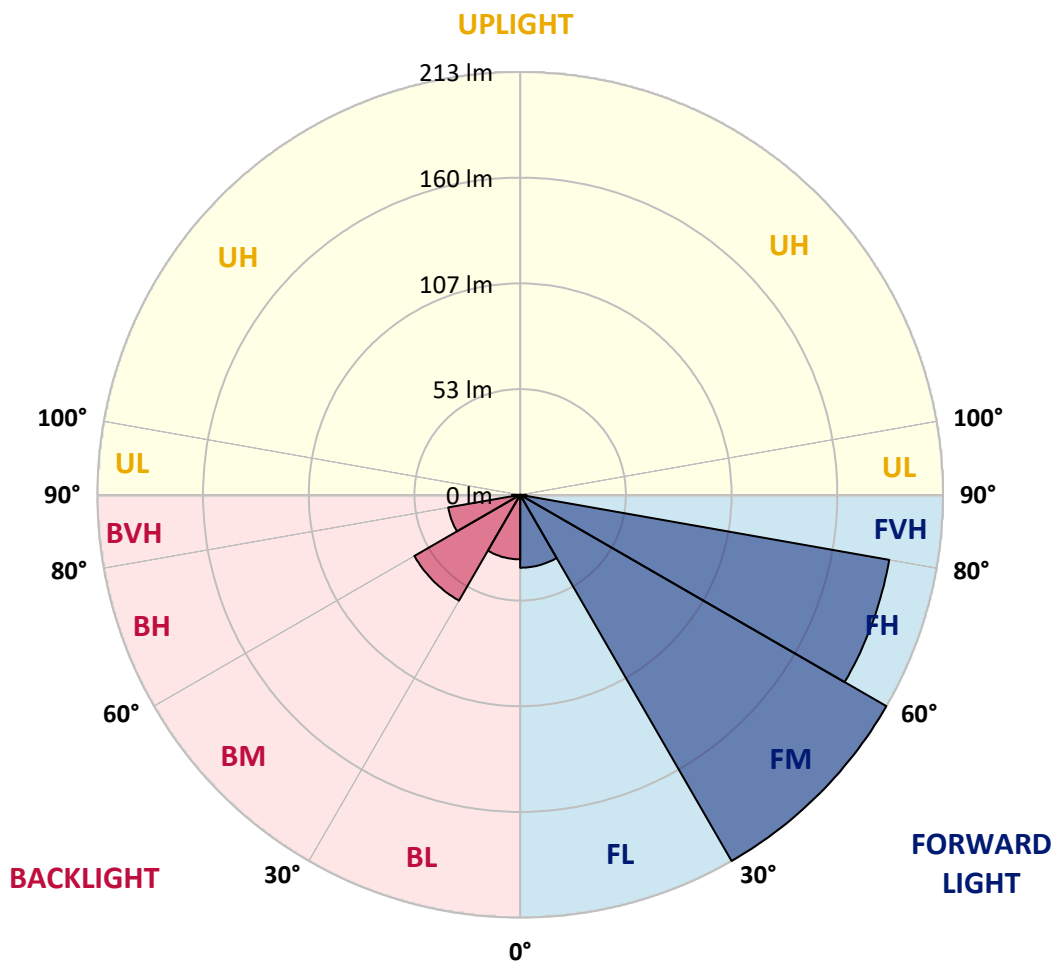
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	36.8	6.4			
FM (30°-60°)	213.5	36.9			
FH (60°-80°)	189.2	32.7			G0/660
FVH (80°-90°)	3.1	0.5			G0/10
BL (0°-30°)	32.6	5.6	B0/110		
BM (30°-60°)	61.7	10.7	B0/220		
BH (60°-80°)	36.9	6.4	B0/110		G0/110
BVH (80°-90°)	4.2	0.7			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°	58°	65°	75°	85°
0°	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4
2.5°	67.7	67.7	68.0	68.0	68.2	68.4	68.5	68.6	68.8	69.2	69.3
5°	67.2	67.2	67.4	67.5	67.7	68.0	68.3	68.4	68.8	69.5	69.9
7.5°	68.4	68.7	68.8	68.8	68.9	69.2	69.2	69.2	69.7	70.3	70.9
10°	70.5	70.7	70.9	71.2	71.4	71.6	71.1	71.2	71.3	72.0	72.8
12.5°	73.2	73.2	73.3	73.6	73.8	74.3	73.8	73.8	73.8	74.4	75.4
15°	76.2	76.0	76.0	76.4	76.4	76.8	76.5	76.5	76.8	77.4	78.4
17.5°	79.6	79.8	79.6	79.4	79.2	79.3	79.5	79.7	80.3	81.2	81.8
20°	84.5	84.9	84.7	84.1	83.0	82.6	83.1	83.5	84.7	85.8	85.9
22.5°	92.3	92.1	91.8	90.7	88.6	87.3	87.4	87.9	89.9	91.5	90.7
25°	99.6	99.8	99.8	98.2	95.5	92.8	93.1	93.3	95.3	96.8	94.6
27.5°	108.4	108.2	108.2	106.0	102.7	100.1	98.7	99.4	100.8	101.4	97.2
30°	117.5	118.2	117.5	114.4	111.3	108.0	105.2	105.1	105.8	105.7	100.2
32.5°	128.5	127.9	127.7	124.1	120.2	115.8	112.3	111.8	111.4	110.8	103.9
35°	137.0	137.7	137.7	134.6	129.9	125.7	120.3	119.8	118.8	116.9	108.6
37.5°	147.0	146.8	147.4	143.8	139.1	135.0	130.0	128.7	126.5	123.7	114.3
40°	156.7	157.1	158.4	154.2	149.9	146.6	139.5	137.0	133.7	131.2	122.5
42.5°	170.1	170.6	171.1	167.6	162.5	159.6	148.6	145.4	143.6	143.1	133.4
45°	186.2	187.2	187.6	184.3	181.4	174.5	160.0	157.1	155.0	157.1	148.3
47.5°	201.7	201.2	203.1	203.0	203.3	195.0	176.3	172.0	170.1	175.4	165.3
50°	210.4	211.1	215.2	219.3	225.0	219.0	195.3	191.0	188.7	195.3	185.3
52.5°	214.9	215.9	221.3	232.8	245.0	242.2	218.2	213.3	211.4	217.8	206.8
55°	215.3	215.9	223.2	241.1	260.3	261.2	244.2	239.6	237.0	241.2	230.2
57.5°	208.6	206.9	219.4	242.3	270.1	280.9	272.9	269.6	262.1	266.6	259.2
60°	196.7	198.4	210.7	237.3	274.2	296.4	301.6	296.6	287.9	289.7	290.6
62.5°	178.6	180.8	193.5	225.7	270.9	309.4	328.2	325.7	314.0	313.0	314.4
65°	152.9	151.6	165.8	200.2	255.2	313.8	354.2	353.2	339.2	327.8	328.4
67.5°	110.2	109.0	119.0	154.6	212.8	297.6	368.1	370.5	354.5	334.4	325.7
68°	100.1	98.4	108.3	142.9	201.9	288.2	367.4	371.4	355.6	334.0	322.3
70°	57.6	54.9	64.5	93.2	148.7	242.6	352.5	363.7	352.9	326.1	300.1
72.5°	18.1	18.1	24.9	37.7	73.0	153.5	301.6	320.6	322.8	296.4	249.4
75°	11.3	11.3	13.0	17.8	29.1	65.1	208.1	237.0	256.5	249.6	181.8
77.5°	7.7	7.5	8.6	11.1	16.2	20.9	104.4	128.3	156.9	170.4	106.4
80°	4.2	4.3	5.3	6.6	9.2	9.7	30.7	43.3	69.1	81.0	40.4
82.5°	2.4	2.3	2.6	2.9	4.0	4.2	8.8	10.8	18.1	16.8	10.8
85°	0.0	0.1	0.1	0.1	0.2	0.4	1.1	1.7	2.7	3.8	2.7
87.5°	0.0	0.0	0.0	0.0	0.1	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°	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4
2.5°	69.5	69.7	70.1	70.5	70.6	70.5	71.0	70.9	71.1	71.1	71.3
5°	70.2	70.5	71.3	71.7	72.1	72.2	72.9	73.0	73.4	73.5	73.4
7.5°	71.3	71.7	72.6	73.3	73.8	74.3	75.3	75.8	76.3	76.4	76.6
10°	73.2	73.8	74.7	75.6	76.4	77.0	77.9	78.5	79.0	79.2	79.3
12.5°	75.8	76.4	77.6	78.9	79.7	80.1	80.0	79.8	79.8	79.7	79.8
15°	78.8	79.4	81.0	82.1	82.2	81.1	79.7	78.9	78.8	78.8	78.9
17.5°	82.2	83.0	84.0	84.7	83.1	80.5	78.9	78.1	78.0	77.9	77.7
20°	86.2	86.7	87.0	86.2	82.8	79.8	77.9	76.8	76.0	75.9	75.6
22.5°	90.4	90.2	89.8	86.9	81.9	78.1	75.5	73.5	72.5	72.4	72.1
25°	93.5	92.8	91.6	87.1	80.3	75.4	71.6	68.5	67.2	66.5	66.7
27.5°	95.5	94.1	92.0	86.3	77.5	71.2	65.9	61.8	59.8	59.5	59.7
30°	97.9	95.7	92.3	84.3	73.4	65.3	58.4	54.3	53.2	52.6	52.8
32.5°	100.8	98.0	93.4	81.2	68.4	58.4	50.9	48.1	46.8	45.8	46.1
35°	104.6	101.0	95.1	76.8	61.9	51.2	45.6	43.0	40.7	39.5	39.6
37.5°	109.0	105.0	96.5	71.8	54.9	45.7	41.0	37.9	35.0	32.8	32.4
40°	116.1	112.8	97.7	66.1	48.2	41.2	36.5	33.0	30.3	28.1	27.8
42.5°	128.0	122.3	97.8	59.3	42.5	37.3	32.8	29.0	25.9	24.1	24.0
45°	142.0	133.1	96.1	52.1	37.4	33.4	29.5	25.2	23.4	22.2	22.0
47.5°	158.5	145.5	92.4	45.3	33.2	29.6	26.1	23.5	22.2	21.3	21.3
50°	177.4	160.1	88.7	39.5	29.1	26.6	24.1	22.8	21.8	21.0	20.9
52.5°	198.7	177.4	87.5	33.6	25.7	23.7	23.5	22.2	21.4	20.8	20.7
55°	224.1	196.8	88.6	29.0	23.0	22.6	23.1	22.0	21.5	20.6	20.3
57.5°	253.5	215.7	87.4	25.1	21.1	21.5	22.6	22.0	21.5	20.4	20.1
60°	281.2	232.5	79.2	21.9	19.4	20.3	22.0	21.3	20.6	20.3	20.2
62.5°	296.0	238.0	63.1	19.4	18.0	19.0	20.9	20.1	19.6	20.2	20.3
65°	296.2	231.8	46.4	17.5	16.9	17.8	19.9	19.6	19.9	21.2	21.5
67.5°	279.7	212.9	32.8	15.8	15.7	16.9	20.3	22.0	22.2	23.5	23.5
68°	274.1	208.2	30.4	15.6	15.5	16.9	20.7	22.4	22.5	23.7	23.6
70°	243.1	176.0	22.0	14.6	15.1	18.2	22.9	23.5	22.5	23.9	23.8
72.5°	190.0	130.2	16.5	13.6	14.4	17.9	23.1	22.5	21.1	21.4	21.0
75°	128.4	83.0	13.6	12.4	12.8	15.2	21.0	21.2	19.5	19.2	18.7
77.5°	67.2	38.9	11.0	11.1	11.4	13.2	18.7	19.3	17.8	16.8	16.6
80°	24.8	15.4	9.0	9.8	9.9	11.5	16.1	16.9	15.5	14.8	14.6
82.5°	9.0	7.7	7.4	8.6	8.4	9.8	14.0	14.7	13.2	12.4	12.0
85°	2.5	2.8	4.7	6.7	6.5	7.7	11.3	11.9	10.6	8.7	8.5
87.5°	0.2	0.6	1.9	4.0	4.1	4.8	8.2	9.0	7.8	6.5	6.4
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)