

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: P400868

Luminaire Tested: **ENV-SA1-830-U-T3-XXB**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400868
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-SA1-830-U-T3-XXB
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 3000K 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: 624 lumens
Efficiency: N/A
Efficacy: 48.0 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

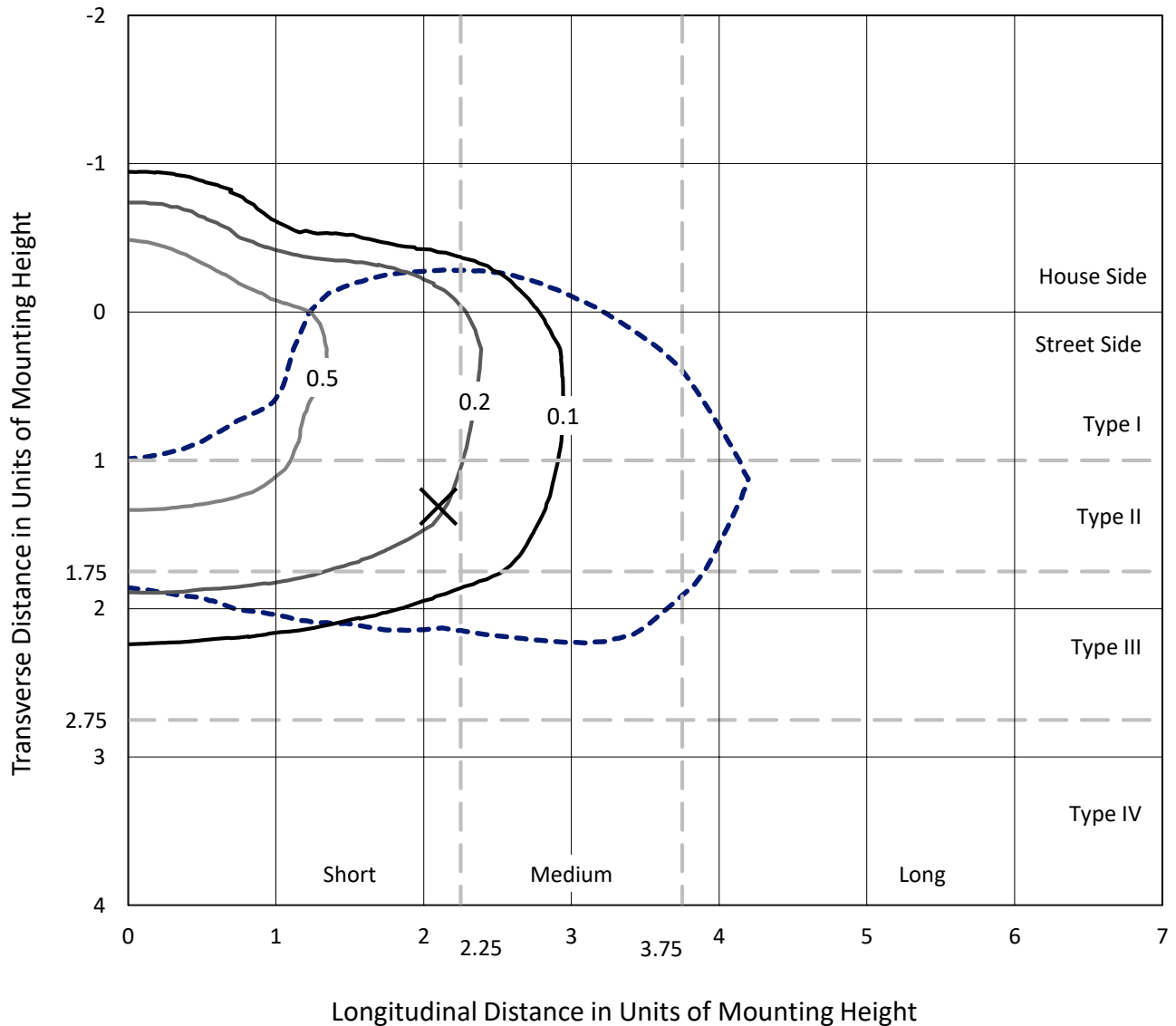


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

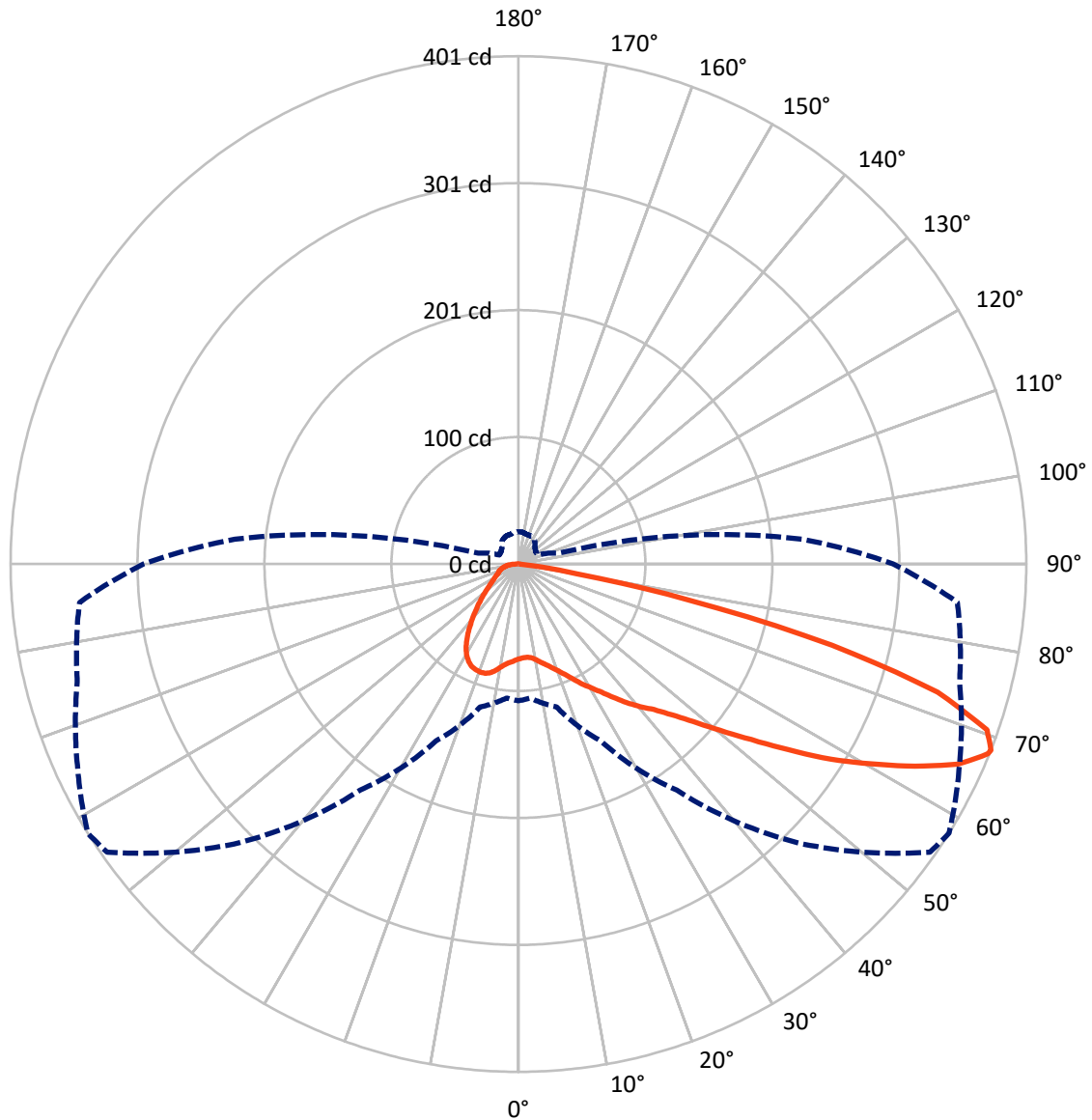


Based on 10 foot mounting height. Maximum calculated value = 0.8 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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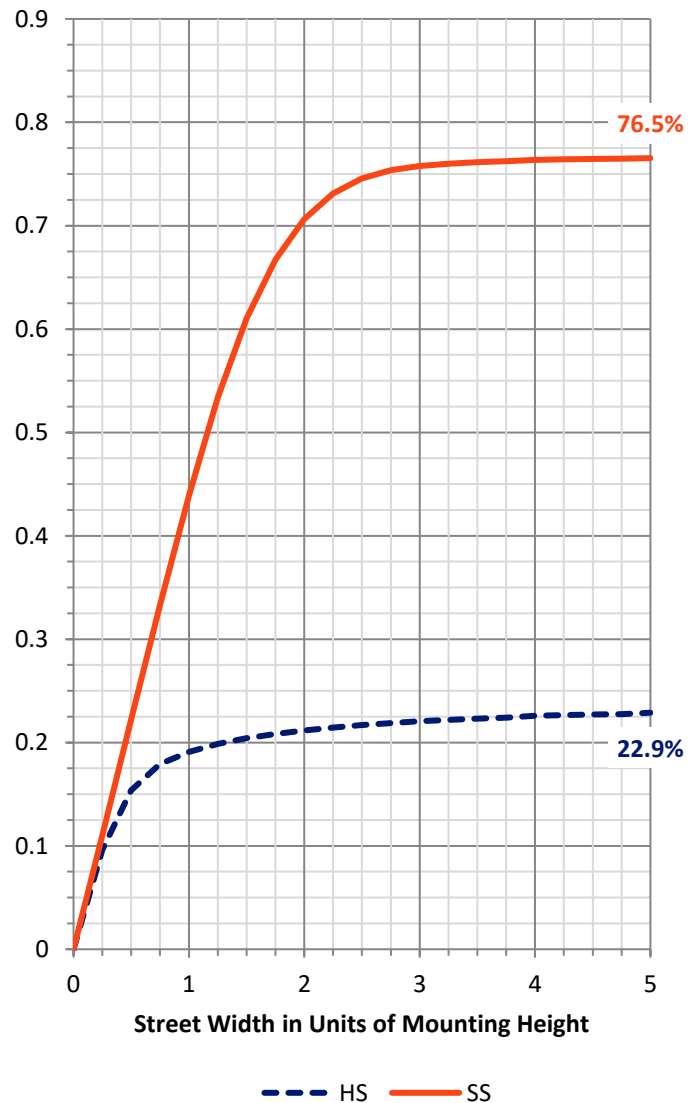
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	146.1	0.0	146.1
	% Fixture	23.4	0.0	23.4
Street Side	Lumens	477.9	0.0	477.9
	% Fixture	76.6	0.0	76.6
Total	Lumens	624.0	0.0	624.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	7.4	1.2
10°-20°	24.1	3.9
20°-30°	43.4	7.0
30°-40°	63.8	10.2
40°-50°	93.5	15.0
50°-60°	139.8	22.4
60°-70°	163.5	26.2
70°-80°	80.6	12.9
80°-90°	7.9	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°	624.0	100.0
0°-180°	624.0	100.0



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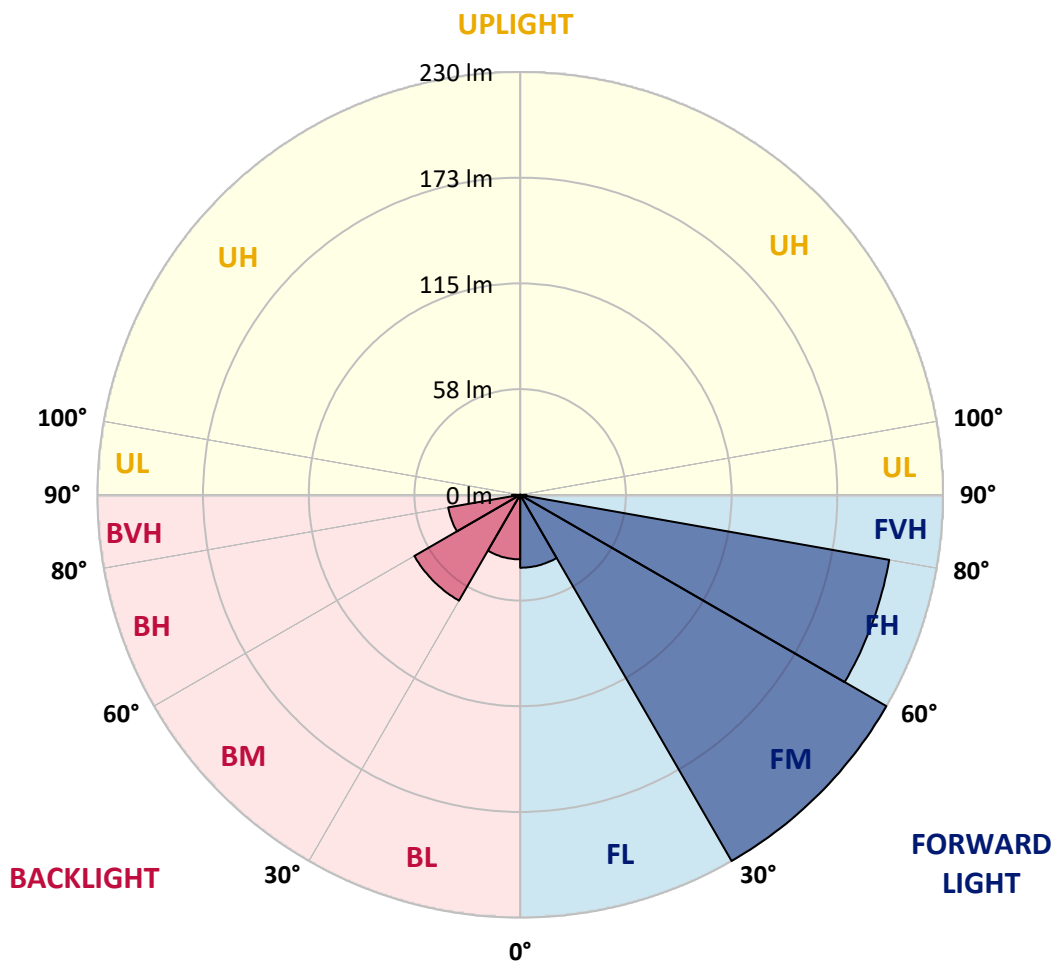
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	39.8	6.4			
FM (30°-60°)	230.5	36.9			
FH (60°-80°)	204.3	32.7			G0/660
FVH (80°-90°)	3.4	0.5			G0/10
BL (0°-30°)	35.2	5.6	B0/110		
BM (30°-60°)	66.6	10.7	B0/220		
BH (60°-80°)	39.8	6.4	B0/110		G0/110
BVH (80°-90°)	4.5	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°	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9
2.5°	73.1	73.1	73.4	73.5	73.6	73.8	74.0	74.1	74.3	74.7	74.8
5°	72.5	72.6	72.8	72.8	73.1	73.5	73.7	73.9	74.3	75.0	75.5
7.5°	73.9	74.1	74.2	74.3	74.4	74.7	74.7	74.8	75.2	75.9	76.5
10°	76.2	76.3	76.6	76.9	77.1	77.3	76.8	76.9	77.0	77.7	78.6
12.5°	79.0	79.0	79.1	79.5	79.7	80.2	79.7	79.7	79.7	80.3	81.4
15°	82.3	82.1	82.1	82.4	82.5	82.9	82.6	82.6	83.0	83.6	84.6
17.5°	85.9	86.2	85.9	85.7	85.5	85.7	85.8	86.0	86.7	87.7	88.3
20°	91.2	91.7	91.5	90.8	89.7	89.1	89.7	90.1	91.5	92.6	92.7
22.5°	99.7	99.4	99.2	97.9	95.7	94.3	94.4	94.9	97.1	98.8	97.9
25°	107.5	107.8	107.8	106.0	103.1	100.2	100.5	100.7	102.9	104.5	102.1
27.5°	117.0	116.8	116.8	114.4	110.8	108.0	106.6	107.3	108.8	109.4	104.9
30°	126.9	127.6	126.9	123.6	120.2	116.6	113.6	113.4	114.2	114.1	108.2
32.5°	138.7	138.1	137.8	134.0	129.7	125.0	121.3	120.7	120.2	119.6	112.1
35°	147.9	148.6	148.6	145.3	140.3	135.7	129.8	129.3	128.3	126.3	117.3
37.5°	158.7	158.5	159.1	155.3	150.2	145.8	140.4	138.9	136.5	133.6	123.4
40°	169.2	169.6	171.0	166.4	161.8	158.3	150.7	148.0	144.4	141.7	132.3
42.5°	183.6	184.2	184.7	180.9	175.4	172.3	160.4	157.0	155.0	154.5	144.0
45°	201.0	202.1	202.5	199.0	195.9	188.4	172.7	169.6	167.4	169.6	160.1
47.5°	217.7	217.2	219.2	219.1	219.5	210.5	190.4	185.7	183.6	189.3	178.4
50°	227.2	227.9	232.3	236.7	242.9	236.5	210.9	206.2	203.7	210.9	200.1
52.5°	232.0	233.1	238.9	251.4	264.5	261.5	235.5	230.3	228.2	235.2	223.2
55°	232.5	233.1	240.9	260.3	281.0	282.0	263.7	258.7	255.8	260.4	248.5
57.5°	225.2	223.4	236.9	261.6	291.5	303.3	294.6	291.0	282.9	287.8	279.9
60°	212.3	214.2	227.4	256.2	296.0	320.0	325.6	320.2	310.8	312.8	313.7
62.5°	192.8	195.2	208.9	243.6	292.4	334.1	354.3	351.6	338.9	337.9	339.5
65°	165.0	163.6	179.0	216.2	275.5	338.8	382.4	381.3	366.2	353.9	354.5
67.5°	119.0	117.7	128.4	166.9	229.8	321.3	397.4	399.9	382.7	361.0	351.6
68°	108.0	106.2	116.9	154.2	218.0	311.2	396.6	401.0	383.9	360.6	347.9
70°	62.2	59.3	69.6	100.6	160.5	261.9	380.6	392.6	381.0	352.1	324.0
72.5°	19.5	19.5	26.9	40.7	78.8	165.7	325.6	346.1	348.5	320.0	269.2
75°	12.2	12.2	14.0	19.3	31.4	70.3	224.6	255.8	276.9	269.4	196.3
77.5°	8.3	8.1	9.3	11.9	17.5	22.6	112.7	138.5	169.4	183.9	114.8
80°	4.5	4.6	5.8	7.1	9.9	10.5	33.1	46.8	74.6	87.4	43.6
82.5°	2.6	2.5	2.8	3.1	4.4	4.5	9.5	11.7	19.5	18.1	11.7
85°	0.0	0.1	0.1	0.1	0.2	0.4	1.2	1.8	3.0	4.1	2.9
87.5°	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.2	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9
2.5°	75.0	75.3	75.7	76.1	76.2	76.1	76.7	76.6	76.8	76.8	76.9
5°	75.8	76.2	76.9	77.4	77.8	78.0	78.7	78.9	79.2	79.4	79.3
7.5°	76.9	77.4	78.3	79.1	79.7	80.2	81.3	81.8	82.3	82.5	82.7
10°	79.0	79.6	80.7	81.6	82.5	83.1	84.1	84.8	85.3	85.5	85.7
12.5°	81.8	82.5	83.8	85.1	86.1	86.4	86.3	86.2	86.2	86.1	86.2
15°	85.0	85.7	87.4	88.6	88.7	87.6	86.0	85.2	85.0	85.0	85.1
17.5°	88.8	89.7	90.7	91.4	89.7	87.0	85.1	84.3	84.2	84.1	83.9
20°	93.1	93.6	93.9	93.1	89.4	86.2	84.1	83.0	82.1	82.0	81.6
22.5°	97.6	97.4	97.0	93.8	88.4	84.3	81.5	79.4	78.2	78.2	77.8
25°	100.9	100.2	98.9	94.0	86.7	81.4	77.3	74.0	72.5	71.8	72.0
27.5°	103.1	101.6	99.3	93.1	83.6	76.9	71.1	66.7	64.6	64.2	64.5
30°	105.7	103.3	99.7	91.0	79.3	70.5	63.0	58.6	57.4	56.8	57.0
32.5°	108.8	105.8	100.8	87.7	73.8	63.1	55.0	51.9	50.5	49.4	49.8
35°	112.9	109.1	102.6	83.0	66.8	55.2	49.2	46.4	43.9	42.7	42.8
37.5°	117.7	113.4	104.2	77.5	59.3	49.3	44.3	41.0	37.8	35.5	35.0
40°	125.4	121.8	105.5	71.4	52.0	44.4	39.4	35.6	32.7	30.3	30.1
42.5°	138.2	132.0	105.6	64.0	45.8	40.3	35.4	31.3	28.0	26.0	25.9
45°	153.3	143.7	103.8	56.2	40.4	36.1	31.8	27.2	25.3	24.0	23.8
47.5°	171.1	157.1	99.8	48.9	35.8	32.0	28.1	25.4	24.0	23.0	23.0
50°	191.5	172.9	95.8	42.6	31.4	28.7	26.1	24.6	23.5	22.7	22.6
52.5°	214.5	191.5	94.5	36.2	27.7	25.6	25.4	24.0	23.1	22.5	22.3
55°	242.0	212.4	95.7	31.3	24.8	24.4	24.9	23.8	23.2	22.2	22.0
57.5°	273.7	232.8	94.4	27.1	22.8	23.3	24.4	23.8	23.3	22.0	21.7
60°	303.6	251.0	85.5	23.6	20.9	21.9	23.7	23.0	22.2	22.0	21.8
62.5°	319.6	257.0	68.1	20.9	19.4	20.5	22.6	21.7	21.2	21.8	21.9
65°	319.8	250.2	50.1	18.9	18.2	19.3	21.4	21.2	21.5	22.9	23.2
67.5°	302.0	229.9	35.4	17.1	17.0	18.3	22.0	23.7	24.0	25.4	25.4
68°	295.9	224.8	32.8	16.8	16.7	18.3	22.4	24.1	24.3	25.6	25.5
70°	262.4	190.0	23.8	15.8	16.3	19.6	24.7	25.4	24.3	25.8	25.7
72.5°	205.1	140.5	17.8	14.6	15.5	19.3	24.9	24.3	22.7	23.1	22.7
75°	138.6	89.6	14.6	13.4	13.8	16.4	22.7	22.9	21.1	20.7	20.2
77.5°	72.6	42.0	11.9	11.9	12.3	14.2	20.2	20.8	19.2	18.1	17.9
80°	26.7	16.6	9.7	10.5	10.7	12.5	17.3	18.3	16.7	15.9	15.8
82.5°	9.8	8.3	8.0	9.2	9.1	10.6	15.2	15.9	14.2	13.4	13.0
85°	2.7	3.0	5.1	7.2	7.1	8.3	12.2	12.8	11.4	9.4	9.1
87.5°	0.2	0.6	2.0	4.3	4.4	5.1	8.8	9.7	8.5	7.0	6.9
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)