

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: P400764

Luminaire Tested: **ENV-SA1-735-U-T4W-XXB**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400764
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-17)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1-735-U-T4W-XXB
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3500K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 725 lumens
Efficiency: N/A
Efficacy: 55.8 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

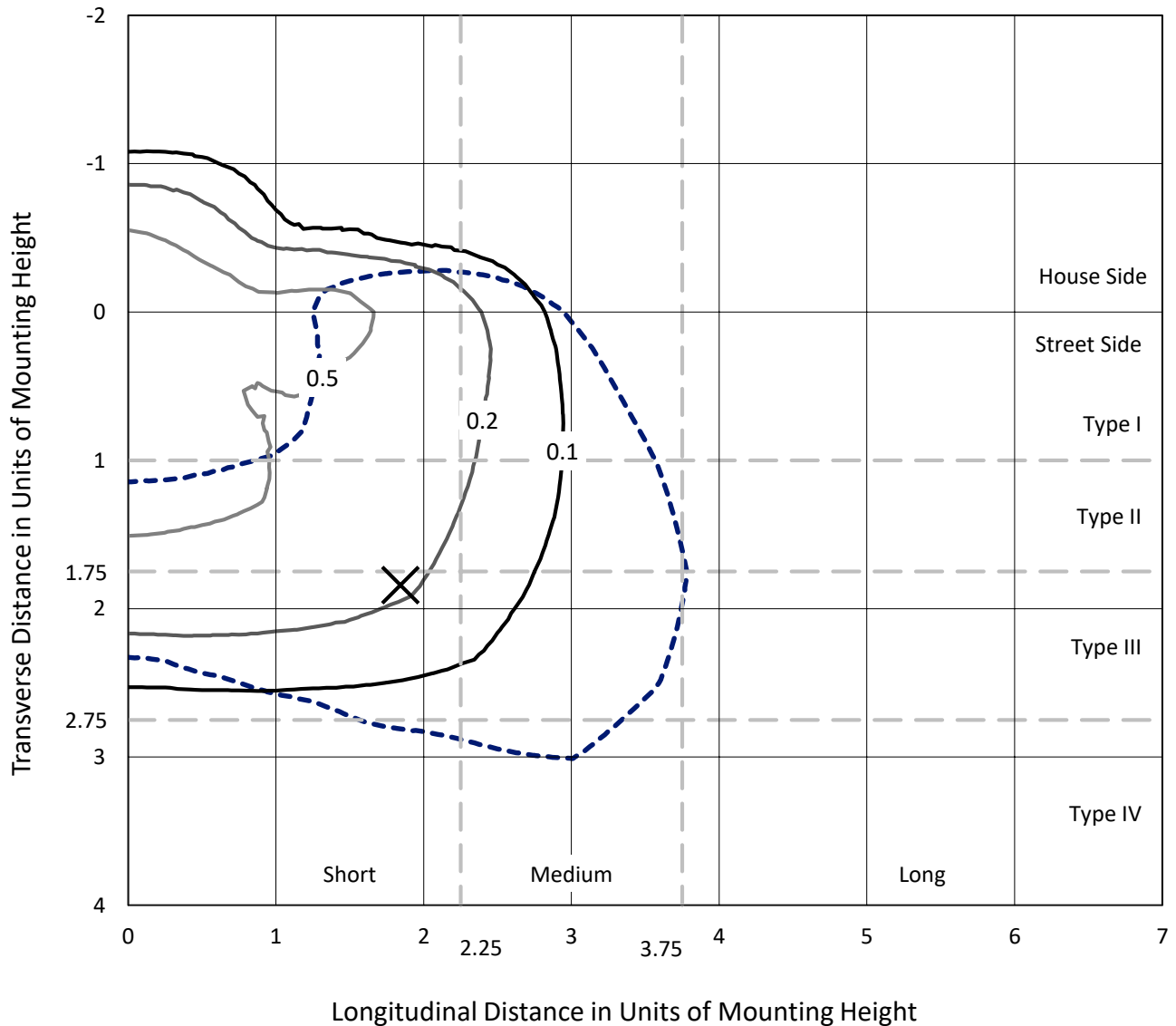


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

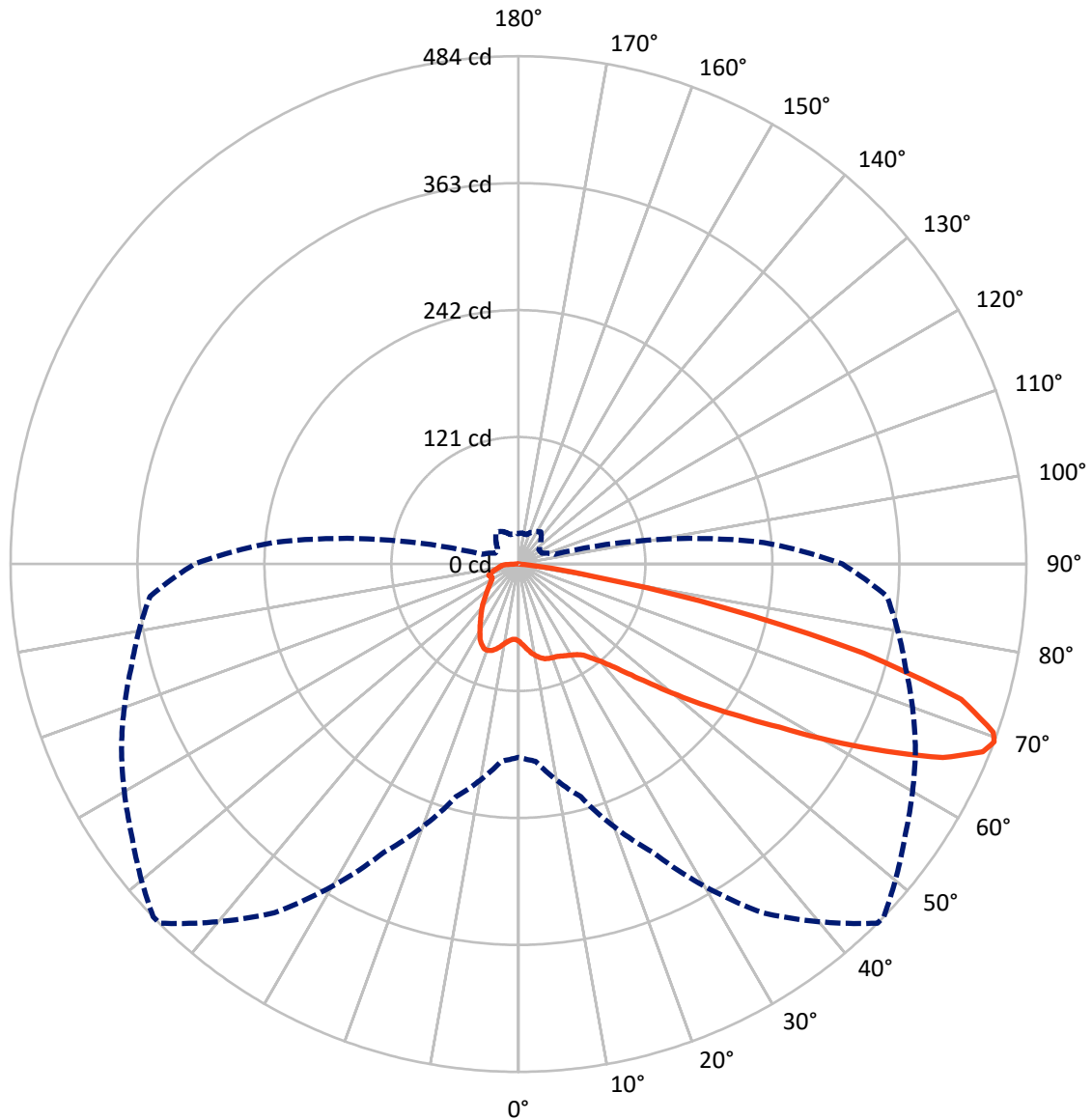


Based on 10 foot mounting height. Maximum calculated value = 0.9 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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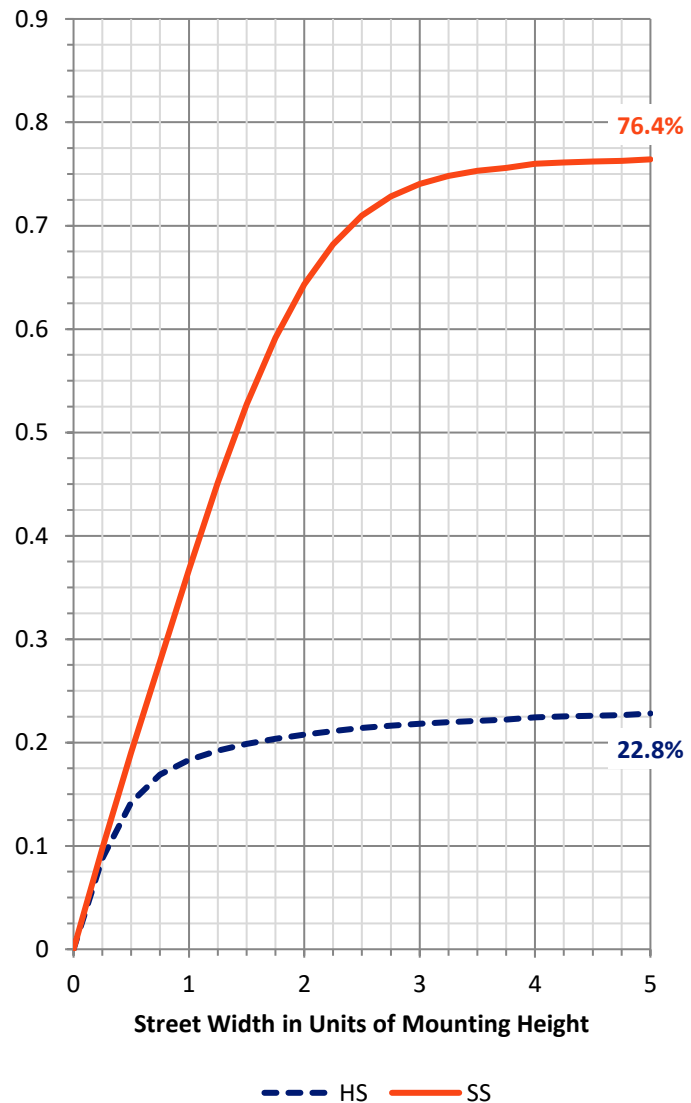
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	170.7	0.0	170.7
	% Fixture	23.5	0.0	23.5
Street Side	Lumens	554.3	0.0	554.3
	% Fixture	76.5	0.0	76.5
Total	Lumens	725.0	0.0	725.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	7.5	1.0
10°-20°	24.8	3.4
20°-30°	42.0	5.8
30°-40°	60.8	8.4
40°-50°	91.7	12.7
50°-60°	154.7	21.3
60°-70°	212.8	29.3
70°-80°	117.9	16.3
80°-90°	12.8	1.8
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°	725.0	100.0
0°-180°	725.0	100.0

Coefficient of Utilization



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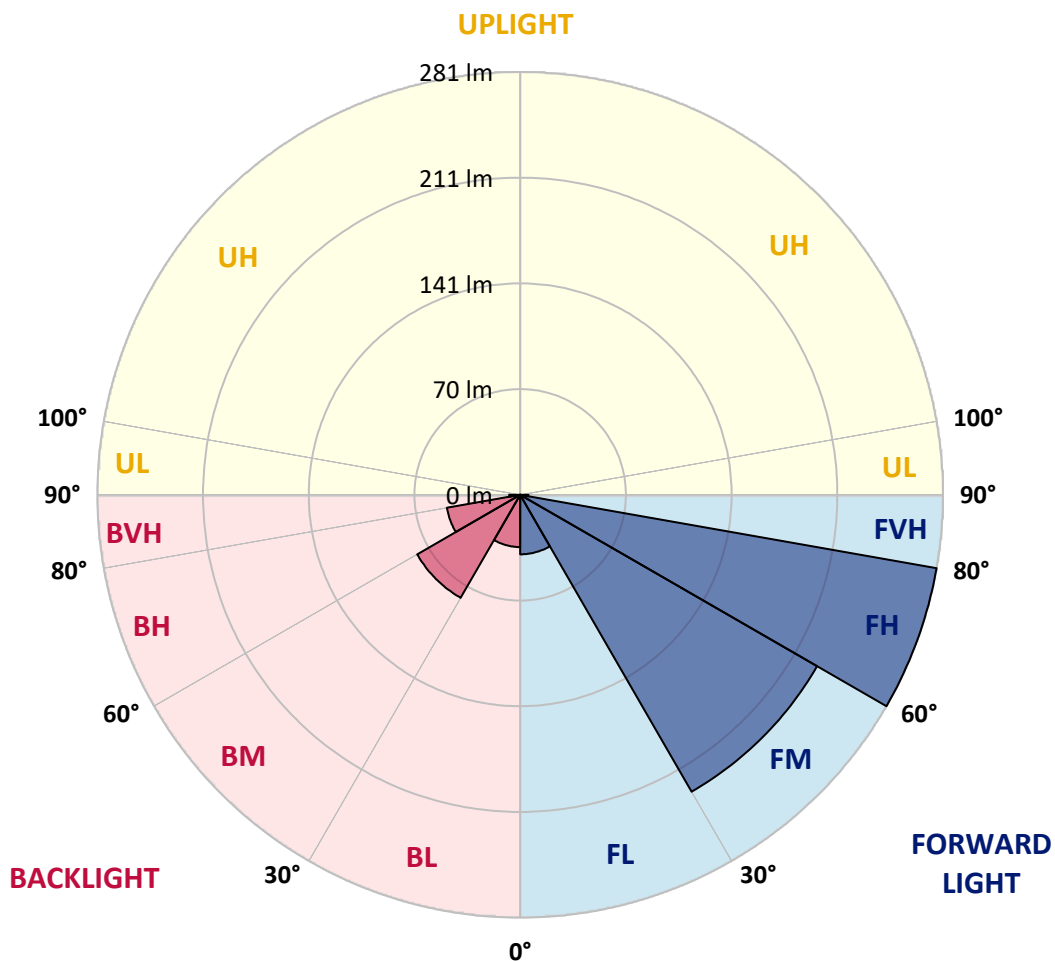
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	39.6	5.5			
FM	(30°-60°)	228.0	31.5			
FH	(60°-80°)	281.2	38.8			G0/660
FVH	(80°-90°)	5.5	0.8			G0/10
BL	(0°-30°)	34.8	4.8	B0/110		
BM	(30°-60°)	79.1	10.9	B0/220		
BH	(60°-80°)	49.5	6.8	B0/110		G0/110
BVH	(80°-90°)	7.3	1.0			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°	45°	46°	55°	65°	75°	85°
0°	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6
2.5°	78.2	78.1	78.2	77.8	77.4	76.8	76.6	75.9	75.3	74.6	74.0
5°	84.0	84.3	84.2	83.7	82.0	80.8	80.8	79.3	77.6	76.1	74.6
7.5°	90.3	90.3	89.7	88.6	87.0	85.1	84.9	82.9	80.5	78.3	76.1
10°	94.8	95.0	94.1	92.7	90.6	88.6	88.4	86.1	83.8	81.0	78.2
12.5°	98.0	98.0	97.2	95.9	93.4	91.5	91.3	89.2	86.8	83.9	80.7
15°	99.7	99.5	98.7	97.3	95.1	93.6	93.3	91.4	89.5	86.6	83.2
17.5°	99.4	99.4	98.7	97.3	95.7	94.5	94.3	93.0	91.5	88.7	85.3
20°	98.0	97.9	97.7	96.6	95.5	95.0	94.8	94.2	93.3	90.9	87.7
22.5°	96.8	96.7	96.4	95.6	95.2	95.5	95.5	95.4	95.3	93.5	90.4
25°	97.5	97.4	96.8	95.7	95.6	97.1	97.2	97.5	97.7	96.2	93.0
27.5°	102.6	102.2	100.5	97.8	96.9	98.7	98.9	99.9	99.7	98.0	95.2
30°	112.4	112.5	108.6	102.9	99.8	100.6	100.7	101.7	101.4	100.1	97.8
32.5°	127.4	127.4	121.0	112.2	104.4	102.8	102.4	103.4	104.6	102.9	100.6
35°	146.4	145.8	138.1	124.6	112.3	106.5	106.3	105.8	108.0	106.4	103.1
37.5°	165.4	163.6	156.0	141.2	123.5	113.7	112.9	111.6	112.9	109.4	106.5
40°	180.8	180.5	174.3	159.2	136.7	122.4	121.8	116.4	117.2	114.4	113.3
42.5°	197.7	197.9	193.8	178.6	152.4	134.3	132.6	124.2	126.6	125.5	125.0
45°	216.2	216.0	212.9	197.1	171.7	150.8	148.7	138.3	143.2	142.5	145.4
47.5°	230.5	231.6	229.8	218.6	194.6	170.8	169.2	156.6	163.9	168.8	174.3
50°	249.8	249.7	245.0	240.4	221.2	196.3	194.8	180.7	191.2	198.4	208.4
52.5°	273.8	273.0	263.2	261.6	253.5	224.3	222.9	208.2	223.2	229.5	249.8
55°	288.9	288.8	283.7	286.6	286.8	255.4	253.7	240.7	257.7	264.9	295.6
57.5°	301.5	301.6	305.8	315.9	322.7	293.2	292.6	276.6	293.8	303.9	340.2
60°	311.2	313.2	325.1	348.2	359.5	341.5	338.8	321.9	333.4	337.4	374.3
62.5°	307.2	309.9	333.2	367.2	396.4	392.6	391.7	367.2	367.1	365.1	399.8
65°	276.3	282.1	318.8	366.5	420.7	444.5	443.2	410.0	398.5	388.1	407.4
67.5°	226.1	227.4	271.6	338.5	420.5	477.2	475.8	441.1	417.9	392.7	385.1
69°	184.1	188.6	229.5	303.0	405.7	483.8	483.8	449.8	417.2	381.9	352.3
70°	159.2	159.4	198.9	274.8	385.5	479.9	480.8	449.8	411.3	367.7	323.2
72.5°	74.6	79.3	104.2	179.3	311.4	441.1	443.4	420.1	377.2	316.8	242.5
75°	22.4	23.2	34.7	85.0	178.4	339.8	344.9	349.5	307.2	233.2	149.3
77.5°	13.3	13.2	16.8	28.9	82.6	201.5	203.8	223.6	199.3	129.7	67.8
80°	6.5	6.7	9.0	14.0	30.9	73.2	80.5	104.5	88.3	50.7	24.8
82.5°	2.2	2.4	3.7	5.7	13.1	23.6	26.1	32.8	28.2	18.4	10.6
85°	0.0	0.0	0.1	0.2	0.7	1.8	1.8	3.9	5.9	6.5	3.5
87.5°	0.0	0.0	0.1	0.1	0.2	0.2	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°	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6
2.5°	73.7	73.5	73.1	72.7	72.5	71.9	72.0	71.8	71.7	71.7	71.8
5°	73.9	73.6	73.0	72.6	72.1	71.9	72.5	72.7	72.9	72.9	73.0
7.5°	75.1	74.5	73.8	73.3	73.4	73.7	74.5	75.1	75.4	75.7	75.9
10°	77.2	76.5	75.4	75.3	75.5	76.4	77.5	78.4	79.3	79.8	79.8
12.5°	79.4	78.4	77.6	77.8	78.7	80.0	81.1	82.1	82.9	83.4	83.5
15°	81.7	80.8	80.0	80.5	82.0	83.5	84.5	84.9	85.2	85.8	85.9
17.5°	83.9	83.1	82.3	83.7	85.0	86.2	86.5	86.3	85.9	86.2	86.4
20°	86.2	85.4	85.0	86.5	87.4	87.5	86.7	85.8	84.7	84.7	84.8
22.5°	88.9	88.0	87.8	88.5	88.2	87.0	84.9	83.5	82.0	81.8	82.1
25°	91.6	90.7	90.6	90.1	87.4	84.2	81.4	79.8	78.6	78.7	79.4
27.5°	94.3	93.7	93.8	91.0	85.0	80.2	76.5	75.1	75.4	75.7	76.3
30°	97.0	97.0	97.4	91.0	81.7	74.5	71.0	70.9	71.7	72.4	73.1
32.5°	100.1	101.0	100.3	89.9	77.3	68.7	66.0	66.2	67.1	68.1	68.7
35°	103.1	105.2	103.2	87.3	71.2	63.5	61.2	60.9	61.6	62.6	62.9
37.5°	107.8	111.3	105.6	83.3	64.9	58.9	56.6	55.8	55.0	55.8	55.7
40°	116.1	120.3	107.5	76.6	58.9	54.5	52.2	50.6	48.9	47.3	47.3
42.5°	129.2	132.0	108.5	68.4	52.8	50.2	47.8	45.6	42.9	40.1	40.1
45°	150.8	151.4	108.9	59.8	47.2	45.9	43.4	41.2	37.7	34.9	34.3
47.5°	179.5	176.9	110.0	51.4	42.4	42.1	40.0	37.5	33.7	31.1	30.8
50°	218.2	206.6	114.5	44.7	38.4	38.8	37.2	34.3	30.7	28.9	28.4
52.5°	261.7	244.3	118.0	39.4	35.0	36.0	34.8	32.1	29.0	27.4	27.1
55°	309.2	280.4	117.2	35.8	32.5	33.5	33.1	30.7	27.9	26.6	26.3
57.5°	348.0	305.9	110.0	32.6	29.9	31.3	31.7	29.9	27.3	26.1	25.8
60°	377.0	319.8	95.1	29.9	27.8	29.6	30.7	29.4	27.2	26.5	26.2
62.5°	390.2	318.6	75.9	27.8	26.3	28.3	30.8	30.2	28.8	29.3	29.4
65°	382.8	303.0	56.9	26.3	25.4	28.5	32.6	32.6	30.4	31.3	31.4
67.5°	344.8	262.3	41.4	25.1	24.4	29.6	35.9	33.8	29.7	30.4	30.1
69°	308.6	234.7	35.6	24.5	23.7	30.1	37.3	34.0	28.9	29.7	28.9
70°	282.0	209.7	32.0	24.0	23.4	30.1	37.7	33.8	28.4	29.1	28.1
72.5°	200.7	145.6	26.3	23.0	22.3	27.8	37.0	32.7	27.3	26.6	24.8
75°	116.7	80.5	22.4	21.9	19.7	24.4	35.1	31.4	26.2	24.8	23.6
77.5°	49.0	36.0	19.1	19.9	17.4	21.7	32.9	30.2	24.8	23.0	22.4
80°	19.9	17.9	15.9	17.2	15.2	19.2	30.3	28.1	22.9	21.0	20.1
82.5°	10.4	9.9	12.2	13.9	12.6	17.6	28.5	26.7	21.2	19.4	18.2
85°	3.1	4.1	6.9	9.5	9.6	15.9	27.7	24.7	18.4	16.0	15.8
87.5°	0.2	0.8	2.4	4.9	6.3	12.2	22.5	20.3	14.9	12.6	12.7
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)