

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: P400761

Luminaire Tested: **ENT-SA1-735-U-T4FT-HSS-XXB**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400761
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-16)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1-735-U-T4FT-HSS-XXB
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3500K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE IV FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 514 lumens
Efficiency: N/A
Efficacy: 39.5 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

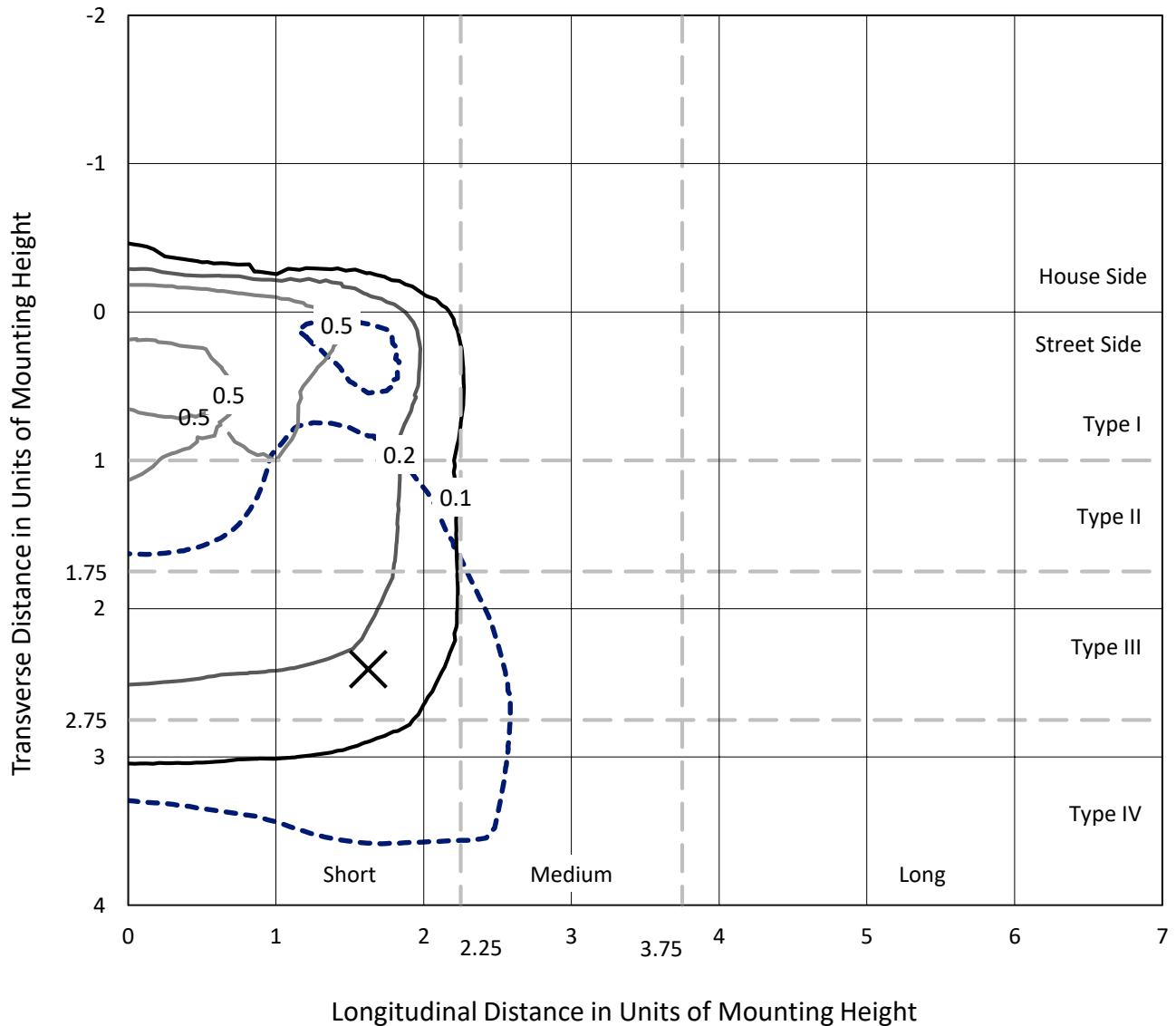


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Iso-Footcandle Lines of Horizontal Illumination

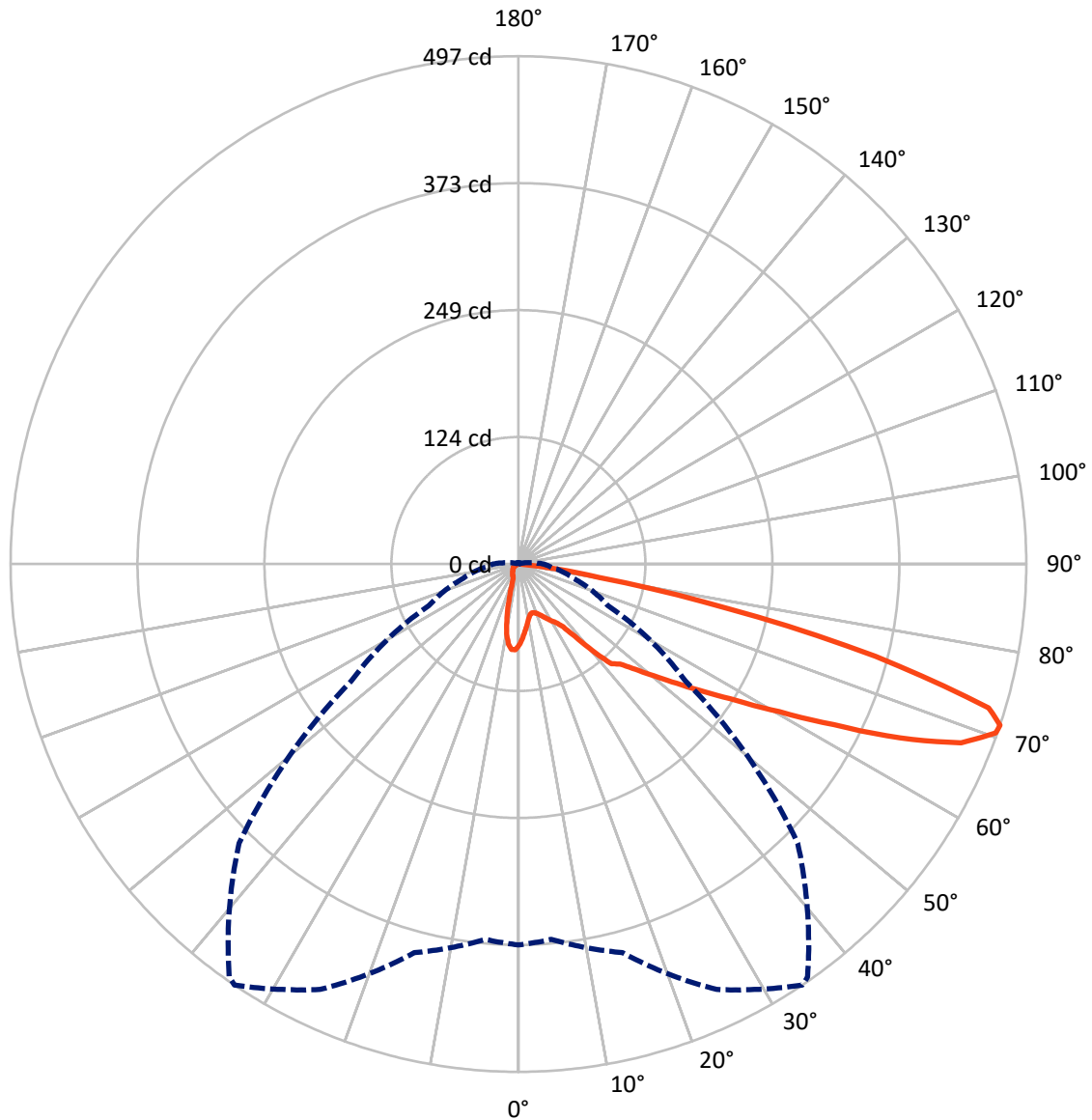
× Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 34-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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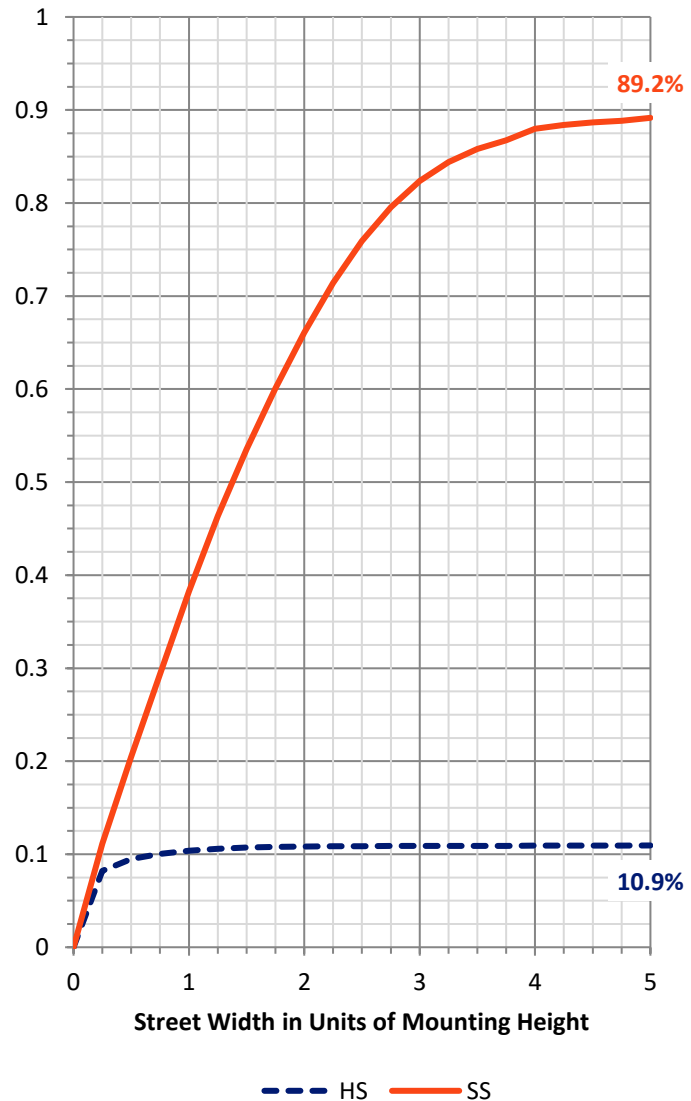
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	56.8	0.0	56.8
	% Fixture	11.1	0.0	11.1
Street Side	Lumens	457.2	0.0	457.2
	% Fixture	88.9	0.0	88.9
Total	Lumens	514.0	0.0	514.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	7.0	1.4
10°-20°	16.1	3.1
20°-30°	24.0	4.7
30°-40°	40.1	7.8
40°-50°	72.4	14.1
50°-60°	114.9	22.4
60°-70°	154.4	30.0
70°-80°	81.9	15.9
80°-90°	3.0	0.6
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°	514.0	100.0
0°-180°	514.0	100.0

Coefficient of Utilization



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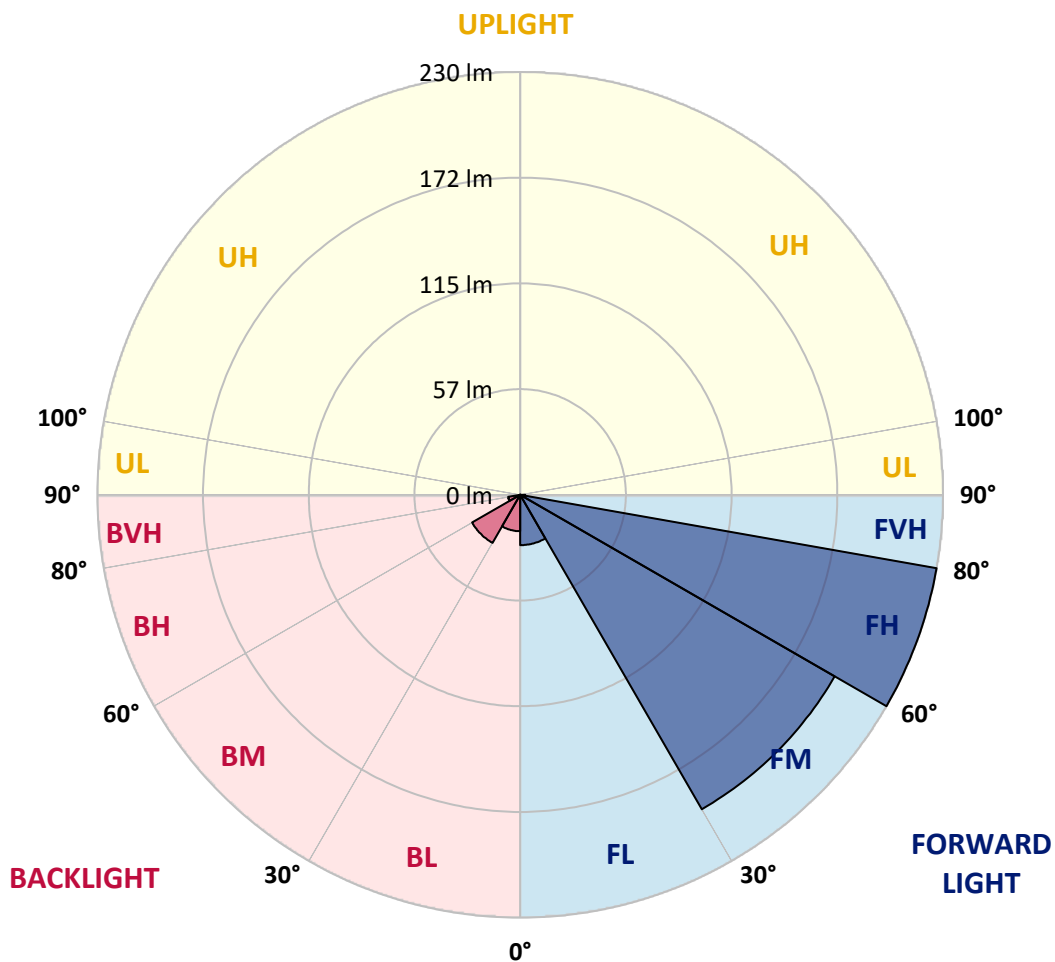
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	27.4	5.3			
FM	(30°-60°)	197.3	38.4			
FH	(60°-80°)	229.8	44.7			G0/660
FVH	(80°-90°)	2.7	0.5			G0/10
BL	(0°-30°)	19.8	3.8	B0/110		
BM	(30°-60°)	30.2	5.9	B0/220		
BH	(60°-80°)	6.6	1.3	B0/110		G0/110
BVH	(80°-90°)	0.3	0.1			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°	34°	35°	45°	55°	65°	75°	85°
0°	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6
2.5°	72.5	71.6	72.4	72.8	73.1	73.6	74.2	75.3	76.5	78.0	78.8
5°	63.2	63.8	64.1	65.2	66.3	66.5	68.5	70.8	73.7	76.5	79.0
7.5°	55.7	55.7	56.6	58.4	60.2	60.5	63.9	66.8	71.0	75.4	79.4
10°	49.7	49.9	50.7	52.4	54.8	55.3	59.1	63.2	68.4	74.2	79.8
12.5°	47.8	47.7	47.6	48.8	50.8	51.3	55.5	60.5	66.5	73.6	80.9
15°	49.0	48.7	48.0	48.2	49.4	49.9	53.6	58.6	65.4	73.5	82.6
17.5°	51.0	50.5	49.2	48.8	50.1	50.7	53.7	58.1	65.0	74.0	84.7
20°	53.3	52.9	50.9	50.3	51.7	52.1	55.3	59.0	65.2	75.0	87.5
22.5°	56.7	56.2	53.2	52.6	54.0	54.4	57.8	61.2	66.4	76.9	91.3
25°	60.9	60.2	56.4	55.6	57.3	57.7	61.1	64.3	68.5	79.3	96.1
27.5°	65.4	64.7	60.7	59.0	60.9	61.5	64.7	68.2	71.5	82.4	102.5
30°	69.5	68.7	64.8	62.9	64.8	65.1	68.9	72.8	76.3	87.7	111.9
32.5°	81.0	78.9	72.8	67.5	68.7	69.3	74.0	80.2	85.4	94.0	124.0
35°	98.1	96.5	89.0	79.7	75.4	75.6	81.6	89.4	91.8	101.3	139.0
37.5°	114.6	113.2	106.7	98.1	89.9	90.2	91.2	98.7	101.5	114.0	157.2
40°	132.7	130.4	125.2	117.1	111.4	110.1	105.0	110.3	116.4	130.0	177.1
42.5°	141.0	138.9	133.5	134.0	133.4	131.0	121.0	128.3	135.1	153.2	199.1
45°	154.8	150.6	139.6	140.4	139.6	139.8	142.3	152.9	158.8	177.7	224.0
47.5°	167.6	162.8	151.2	150.4	154.0	155.9	169.2	182.1	182.6	199.1	243.5
50°	179.3	175.8	165.2	165.3	171.9	173.9	200.5	212.3	201.9	215.5	258.7
52.5°	194.8	189.8	180.3	183.7	194.0	195.9	231.8	238.8	215.8	230.4	270.7
55°	209.1	206.4	199.4	204.5	220.3	225.1	263.6	259.2	225.6	243.6	276.5
57.5°	232.6	230.1	228.2	230.8	251.9	258.0	295.8	273.7	233.3	252.3	273.8
60°	271.8	269.3	263.7	266.1	293.6	296.7	321.0	288.3	236.2	254.8	263.3
62.5°	320.2	317.0	308.0	319.0	346.6	346.5	347.2	296.1	232.4	247.5	235.5
65°	363.9	359.4	354.8	377.1	410.7	406.0	375.1	297.0	220.4	212.1	182.2
67.5°	395.6	393.9	396.5	431.2	467.4	462.8	402.1	284.2	183.4	153.1	112.6
70°	394.4	390.8	407.2	462.7	495.6	491.8	401.0	233.6	122.4	81.1	47.1
71°	373.0	368.9	393.9	459.6	497.2	493.6	386.6	199.8	96.8	57.3	31.1
72.5°	288.2	300.7	340.4	426.5	481.4	476.7	347.2	153.0	61.3	33.1	15.6
75°	121.9	128.7	202.1	304.4	361.1	358.7	234.1	70.7	28.2	15.0	6.0
77.5°	31.4	30.9	61.9	130.6	210.2	214.0	107.9	24.2	14.6	10.6	3.4
80°	6.1	6.6	17.6	45.4	80.3	82.4	35.2	10.6	9.8	8.4	1.8
82.5°	0.6	0.7	3.1	14.0	26.9	26.0	7.7	4.0	6.0	5.7	0.8
85°	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.4	1.4	1.5	0.2
87.5°	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	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°	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6
2.5°	79.4	80.4	81.4	82.1	82.8	82.9	84.0	83.8	84.1	84.2	84.1
5°	80.4	81.6	83.6	84.6	85.0	84.3	84.1	82.9	82.5	82.0	81.5
7.5°	81.4	82.9	85.2	85.7	84.3	81.6	79.4	76.6	74.1	72.4	72.6
10°	82.5	84.5	86.3	85.0	81.3	76.0	69.9	63.8	58.3	56.2	56.9
12.5°	84.0	86.3	87.2	83.5	76.2	65.6	54.6	45.2	39.5	36.1	35.7
15°	86.1	88.5	87.6	81.0	68.2	51.6	37.9	28.4	22.9	21.1	20.2
17.5°	88.8	91.1	87.6	76.5	56.7	36.9	23.0	17.2	15.5	15.1	15.2
20°	92.1	94.3	87.2	69.8	43.7	22.7	15.4	14.2	14.2	14.2	14.1
22.5°	96.6	97.7	86.6	61.0	30.1	15.4	13.6	13.5	13.6	13.6	13.6
25°	101.9	101.7	85.4	50.3	19.0	13.1	13.0	13.0	13.1	13.2	13.2
27.5°	109.0	106.9	83.5	37.7	13.4	12.2	12.4	12.6	12.8	13.0	13.0
30°	118.9	113.7	80.3	25.5	11.3	11.2	11.7	12.3	12.6	12.8	12.8
32.5°	129.6	120.7	74.8	16.3	10.4	10.3	10.7	11.7	12.5	12.7	12.7
35°	143.0	128.2	66.6	11.8	9.8	9.6	10.0	10.8	12.1	12.7	12.7
37.5°	157.1	136.3	54.8	9.9	9.2	9.0	9.3	9.9	11.3	12.5	12.6
40°	172.2	143.4	41.2	9.2	8.6	8.5	8.6	9.2	10.3	11.9	12.2
42.5°	187.3	149.4	28.8	8.5	8.0	7.8	8.0	8.5	9.5	10.8	11.0
45°	204.1	156.0	19.2	7.8	7.6	7.4	7.6	7.9	8.7	9.4	9.5
47.5°	216.2	158.4	13.2	7.1	7.0	7.1	7.2	7.4	7.8	7.9	7.8
50°	224.3	157.1	9.5	6.4	6.5	6.8	6.8	6.9	6.9	6.6	6.5
52.5°	230.2	152.6	7.3	5.5	6.1	6.4	6.4	6.2	6.0	5.6	5.5
55°	230.8	142.4	5.8	4.7	5.5	6.0	5.9	5.5	5.1	4.6	4.6
57.5°	222.9	126.9	4.7	4.0	4.7	5.3	5.1	4.6	4.1	3.8	3.8
60°	210.2	111.0	4.0	3.4	3.9	4.4	4.1	3.8	3.3	3.0	3.0
62.5°	186.8	95.3	3.3	2.8	3.2	3.5	3.4	3.1	2.6	2.4	2.3
65°	143.2	72.5	2.5	2.2	2.5	2.9	2.7	2.4	2.1	1.8	1.7
67.5°	86.0	43.6	2.0	1.7	2.0	2.3	2.1	1.8	1.4	1.2	1.2
70°	36.4	18.7	1.5	1.2	1.4	1.8	1.7	1.4	1.1	1.0	1.0
71°	24.8	13.3	1.3	1.1	1.3	1.7	1.5	1.3	1.1	1.0	1.0
72.5°	12.7	6.8	1.1	0.9	1.2	1.4	1.4	1.2	1.0	1.0	1.0
75°	4.5	2.9	0.9	0.8	1.0	1.0	1.1	1.1	1.1	1.1	1.0
77.5°	2.6	1.8	0.8	0.8	0.8	0.9	1.1	1.2	1.3	1.3	1.2
80°	1.4	0.9	0.5	0.6	0.8	0.9	1.1	1.2	1.4	1.4	1.3
82.5°	0.7	0.3	0.1	0.3	0.5	0.8	0.9	1.0	1.2	1.1	1.1
85°	0.1	0.0	0.0	0.1	0.3	0.4	0.6	0.8	1.0	1.0	0.9
87.5°	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.5	0.7	0.8	0.7
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)