

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: P400849

Luminaire Tested: **ENT-SA1-827-U-T3-HSS-XXB**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400849
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-14)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1-827-U-T3-HSS-XXB
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 2700K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE III OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 436 lumens
Efficiency: N/A
Efficacy: 33.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B0 - U0 - G0

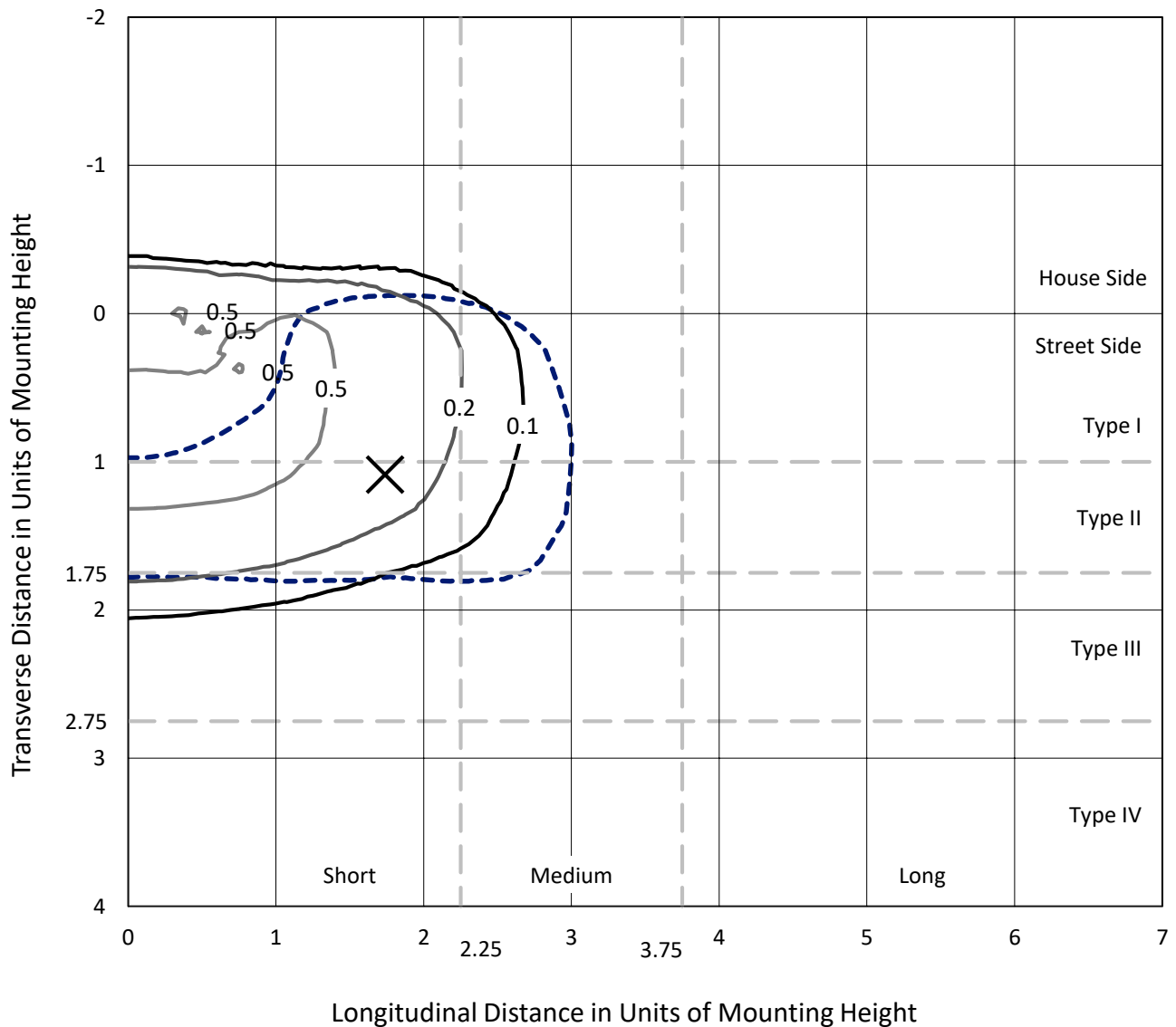
Input Watts (W): 13
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

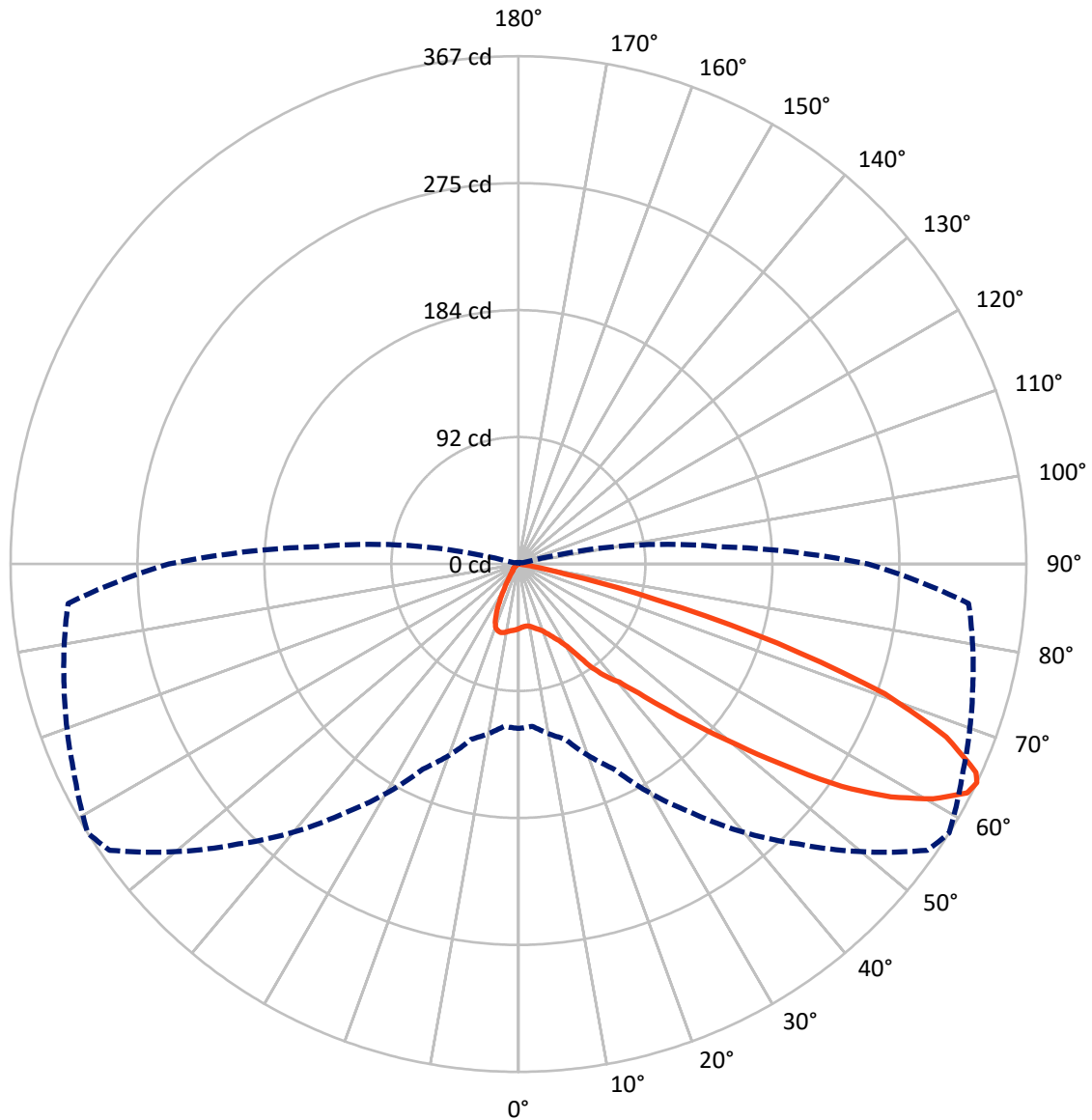
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 0.7 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 64-Deg Vertical

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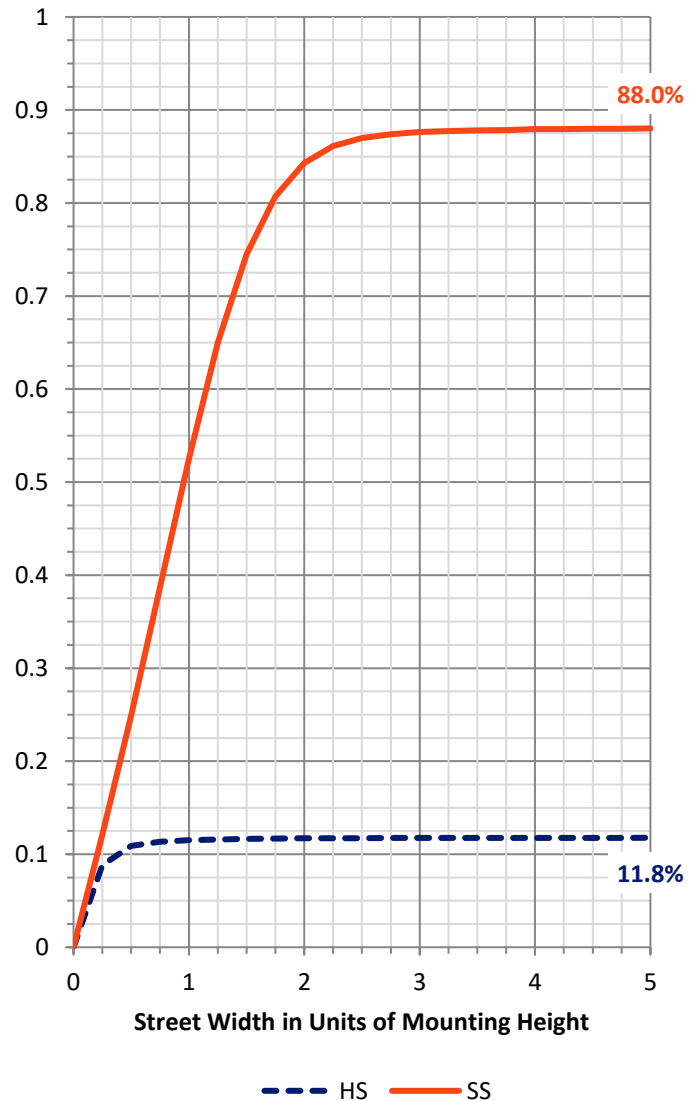
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	52.0	0.0	52.0
	% Fixture	11.9	0.0	11.9
Street Side	Lumens	384.0	0.0	384.0
	% Fixture	88.1	0.0	88.1
Total	Lumens	436.0	0.0	436.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4.4	1.0
10°-20°	12.9	3.0
20°-30°	23.1	5.3
30°-40°	40.5	9.3
40°-50°	74.1	17.0
50°-60°	126.7	29.1
60°-70°	122.9	28.2
70°-80°	30.5	7.0
80°-90°	0.9	0.2
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°	436.0	100.0
0°-180°	436.0	100.0



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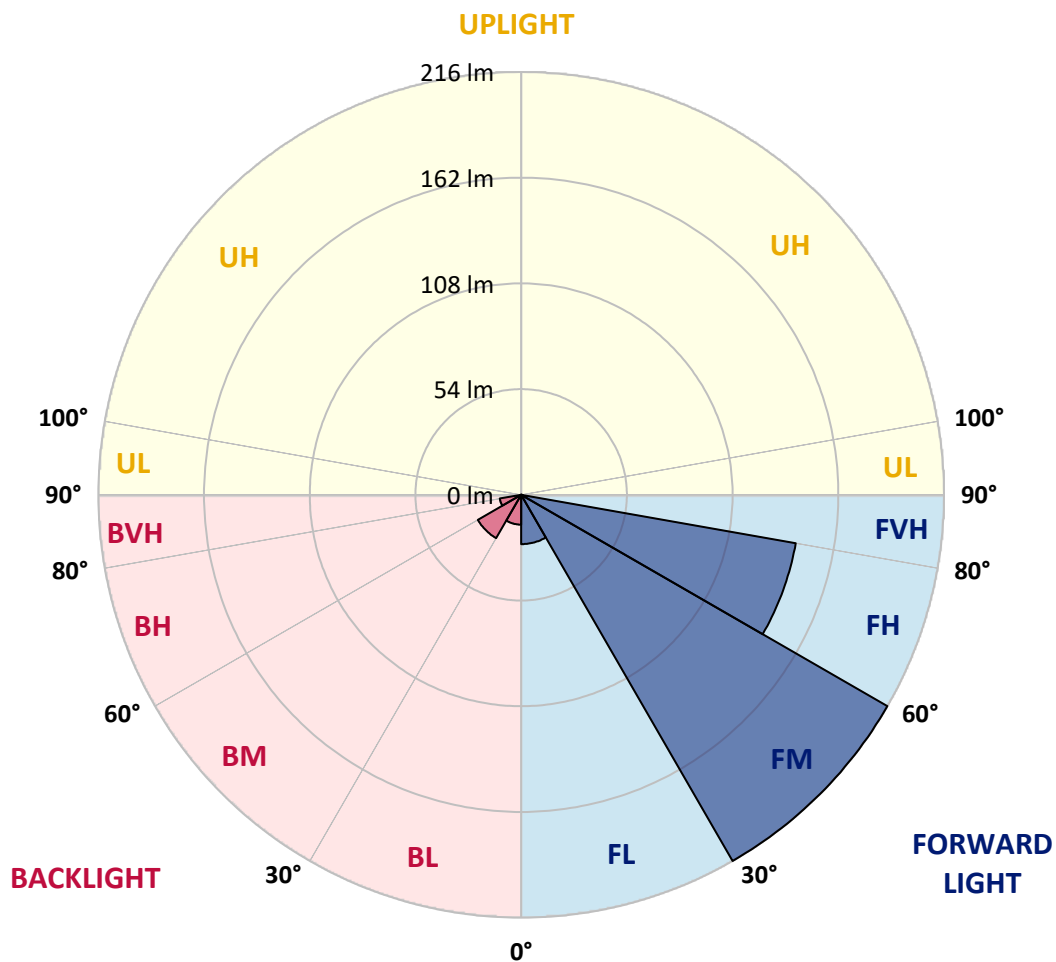
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	25.2	5.8			
FM (30°-60°)	215.8	49.5			
FH (60°-80°)	142.3	32.6			G0/660
FVH (80°-90°)	0.7	0.2			G0/10
BL (0°-30°)	15.2	3.5	B0/110		
BM (30°-60°)	25.5	5.9	B0/220		
BH (60°-80°)	11.1	2.5	B0/110		G0/110
BVH (80°-90°)	0.1	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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7
2.5°	44.8	44.8	44.9	45.0	45.3	45.5	45.8	45.9	46.1	46.5	46.6
5°	42.3	42.4	42.6	43.0	43.6	44.2	45.0	45.3	45.9	46.7	47.3
7.5°	41.4	41.5	41.7	42.2	42.9	43.9	44.8	45.2	46.1	47.3	48.2
10°	41.2	41.2	41.5	42.3	43.2	44.4	45.4	45.8	47.0	48.6	49.8
12.5°	41.2	41.2	41.6	42.5	43.6	45.1	46.5	47.1	48.5	50.4	52.0
15°	41.9	42.1	42.3	42.9	44.1	45.8	47.8	48.5	50.2	52.5	54.5
17.5°	47.1	46.9	46.1	45.4	45.2	46.6	49.0	49.9	52.4	55.4	57.6
20°	57.1	57.0	55.6	52.0	48.9	48.1	50.9	51.9	55.6	59.5	61.1
22.5°	69.2	69.6	67.4	62.6	56.1	52.0	53.6	55.1	59.8	64.5	65.5
25°	81.2	81.7	79.6	73.6	65.7	58.6	57.4	58.7	64.0	68.8	68.4
27.5°	95.4	95.0	92.9	86.1	77.0	67.4	62.5	62.8	66.9	72.2	70.9
30°	105.8	105.3	103.2	98.6	90.0	79.0	69.8	69.0	70.3	76.1	74.8
32.5°	115.3	115.7	114.2	108.1	99.9	91.1	80.7	78.7	78.2	83.2	81.0
35°	124.8	124.7	124.1	118.7	110.7	102.4	93.6	92.3	92.1	97.0	90.8
37.5°	136.1	135.5	134.5	129.0	122.6	114.6	105.3	103.2	102.8	103.7	96.6
40°	148.2	148.9	147.2	141.5	134.5	128.6	115.6	112.3	109.5	112.4	107.8
42.5°	166.2	166.7	163.7	159.8	150.8	145.3	132.1	127.6	126.3	130.6	125.4
45°	188.7	187.7	185.7	182.9	175.5	167.0	153.3	149.1	147.7	155.0	146.6
47.5°	206.3	206.2	206.3	205.7	204.6	194.4	178.1	175.2	173.8	184.4	175.0
50°	217.5	218.1	220.9	227.9	233.0	228.8	209.6	206.1	205.0	216.0	203.3
52.5°	225.9	227.4	232.0	245.9	262.4	263.8	248.0	243.0	240.6	243.7	226.1
55°	230.1	230.9	237.9	258.4	284.2	294.7	288.0	283.8	274.1	268.3	252.8
57.5°	220.1	219.0	231.1	257.1	295.5	319.5	322.3	317.6	301.9	297.4	285.2
60°	193.9	193.4	207.1	238.4	285.7	325.3	347.7	344.7	330.4	319.7	308.2
62.5°	147.9	148.7	163.2	195.0	250.6	308.6	361.8	364.3	349.0	333.0	325.2
64°	118.8	117.8	131.1	163.5	219.9	286.3	360.8	367.2	354.7	340.1	326.8
65°	99.8	97.7	110.3	139.7	193.9	270.2	353.4	363.6	355.1	341.8	321.2
67.5°	52.5	53.6	59.0	84.9	130.9	204.3	318.2	333.7	337.2	318.6	279.9
70°	23.6	23.7	27.2	43.3	72.4	132.5	255.9	281.0	283.0	261.7	202.8
72.5°	7.8	7.9	12.0	17.3	30.4	61.4	172.9	195.7	199.9	169.7	110.0
75°	4.8	5.0	6.4	9.4	14.1	21.5	87.6	103.1	104.0	75.3	40.0
77.5°	3.1	3.2	3.9	5.6	7.7	8.1	28.7	34.8	39.4	27.1	12.4
80°	1.9	1.9	2.5	3.4	4.0	3.5	7.8	10.3	12.4	9.1	4.2
82.5°	0.7	0.7	1.3	1.9	1.7	1.2	2.1	2.7	4.8	4.5	2.0
85°	0.0	0.0	0.1	0.2	0.1	0.2	0.4	0.6	0.9	1.3	0.6
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°	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7
2.5°	46.9	47.0	47.3	47.4	47.5	47.3	47.5	47.3	47.4	47.4	47.4
5°	47.6	47.8	48.1	48.2	48.1	47.5	47.7	47.3	47.2	47.2	47.2
7.5°	48.6	48.8	49.2	49.0	48.5	47.7	47.6	47.0	46.8	46.8	46.9
10°	50.3	50.6	50.7	50.3	49.3	48.1	47.2	46.0	45.4	45.2	45.2
12.5°	52.6	52.8	52.8	51.9	50.2	47.7	45.2	42.8	41.1	40.5	39.8
15°	55.0	55.3	55.2	53.5	50.1	45.7	40.8	35.3	31.9	29.8	29.4
17.5°	57.8	58.2	57.4	54.3	48.9	41.4	32.2	24.8	19.8	18.0	17.9
20°	61.3	61.1	59.2	54.4	46.7	33.5	21.5	15.5	13.4	12.9	12.8
22.5°	65.3	64.5	61.0	53.9	40.7	22.7	13.9	12.3	12.0	11.9	11.9
25°	67.5	66.2	61.6	52.5	31.4	14.5	11.8	11.5	11.1	10.8	10.7
27.5°	69.3	67.4	61.9	48.0	20.9	11.1	10.6	10.3	9.8	9.4	9.3
30°	72.5	69.6	62.3	40.1	12.8	9.5	9.3	8.7	8.0	7.5	7.3
32.5°	78.3	74.1	63.9	30.0	9.4	8.4	7.7	7.0	6.2	5.7	5.7
35°	84.5	78.4	64.7	19.8	8.1	7.3	6.4	5.5	4.8	4.4	4.3
37.5°	90.3	84.5	64.4	12.1	7.3	6.3	5.2	4.4	3.7	3.4	3.4
40°	102.0	95.3	61.1	8.3	6.4	5.3	4.3	3.4	3.0	2.7	2.7
42.5°	118.7	107.0	53.8	7.1	5.6	4.4	3.4	2.8	2.5	2.3	2.3
45°	137.4	120.0	42.9	6.4	4.8	3.7	2.8	2.3	2.0	1.9	1.9
47.5°	161.9	135.8	31.5	5.7	4.2	3.1	2.3	1.9	1.8	1.7	1.7
50°	183.3	148.5	21.5	5.0	3.7	2.7	2.0	1.8	1.6	1.5	1.5
52.5°	202.9	157.4	14.2	4.4	3.3	2.2	1.9	1.6	1.5	1.5	1.5
55°	225.9	164.1	9.6	3.8	2.9	2.0	1.8	1.6	1.5	1.5	1.4
57.5°	245.4	168.2	6.9	3.2	2.6	1.9	1.7	1.5	1.4	1.3	1.3
60°	256.7	163.4	5.0	2.8	2.3	1.7	1.5	1.4	1.3	1.2	1.2
62.5°	259.9	154.2	3.9	2.4	1.9	1.5	1.4	1.2	1.1	1.0	1.0
64°	252.6	144.4	3.3	2.1	1.7	1.4	1.3	1.1	1.0	0.8	0.8
65°	242.4	135.3	3.0	1.9	1.5	1.3	1.2	1.0	0.8	0.6	0.6
67.5°	202.0	107.8	2.4	1.6	1.2	1.1	1.0	0.8	0.6	0.4	0.4
70°	143.4	75.4	1.9	1.3	1.0	1.0	0.9	0.6	0.3	0.2	0.2
72.5°	75.9	39.2	1.5	1.0	0.8	0.8	0.7	0.4	0.2	0.2	0.1
75°	26.5	12.9	1.3	0.9	0.7	0.6	0.5	0.3	0.2	0.2	0.1
77.5°	8.1	4.3	1.1	0.9	0.6	0.5	0.6	0.5	0.5	0.3	0.2
80°	2.6	1.5	0.6	0.6	0.6	0.6	0.6	0.5	0.6	0.4	0.3
82.5°	1.0	0.6	0.2	0.3	0.3	0.4	0.4	0.3	0.2	0.1	0.0
85°	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.0	0.0
87.5°	0.2	0.2	0.2	0.2	0.2	0.2	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

(END OF REPORT)