

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: P401033

Luminaire Tested: **ENT-SA1A-827-U-T4W-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401033
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-18)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1A-827-U-T4W-HSS
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 2700K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1499 lumens
Efficiency: N/A
Efficacy: 74.6 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

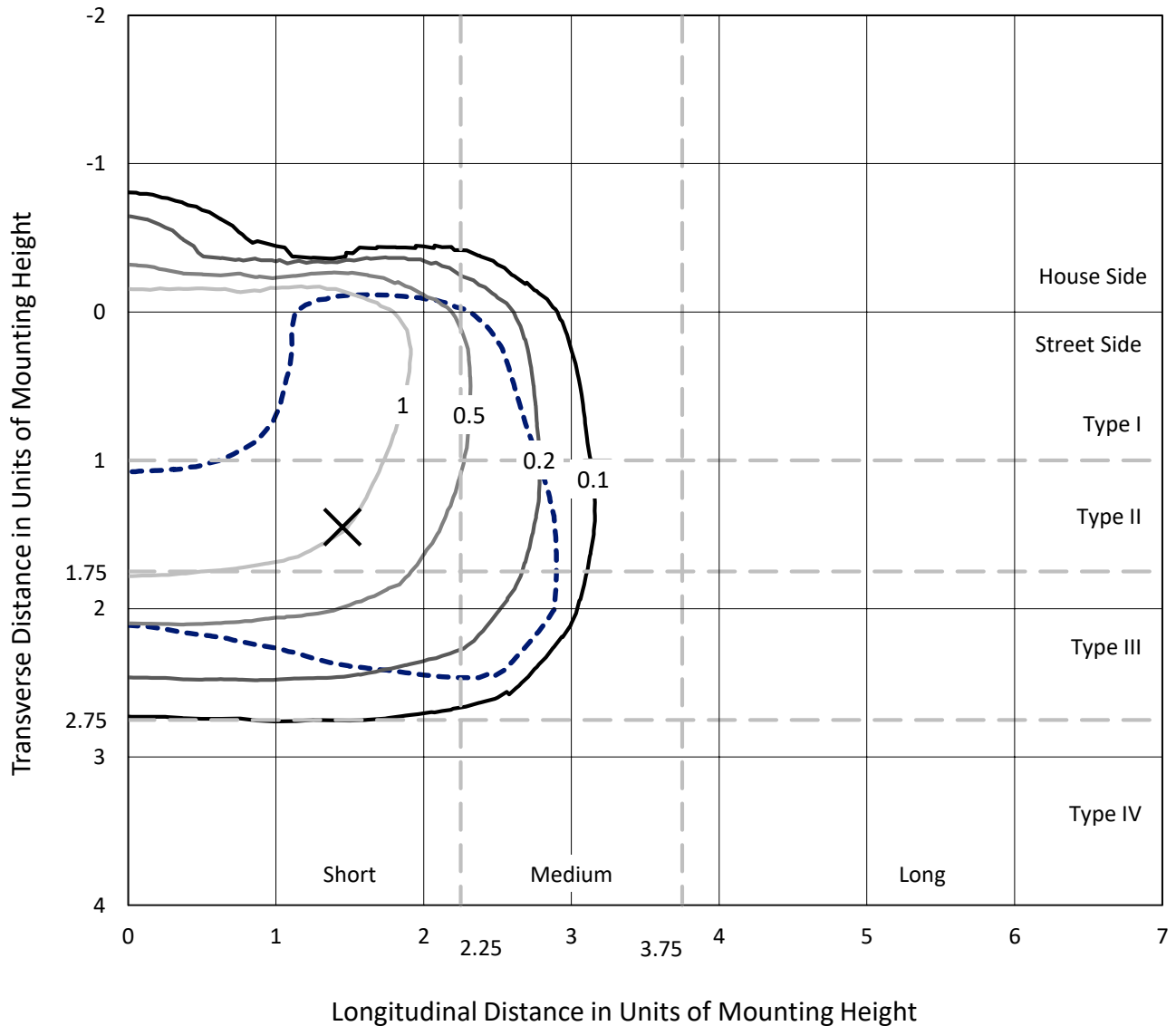
Input Watts (W): 20.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

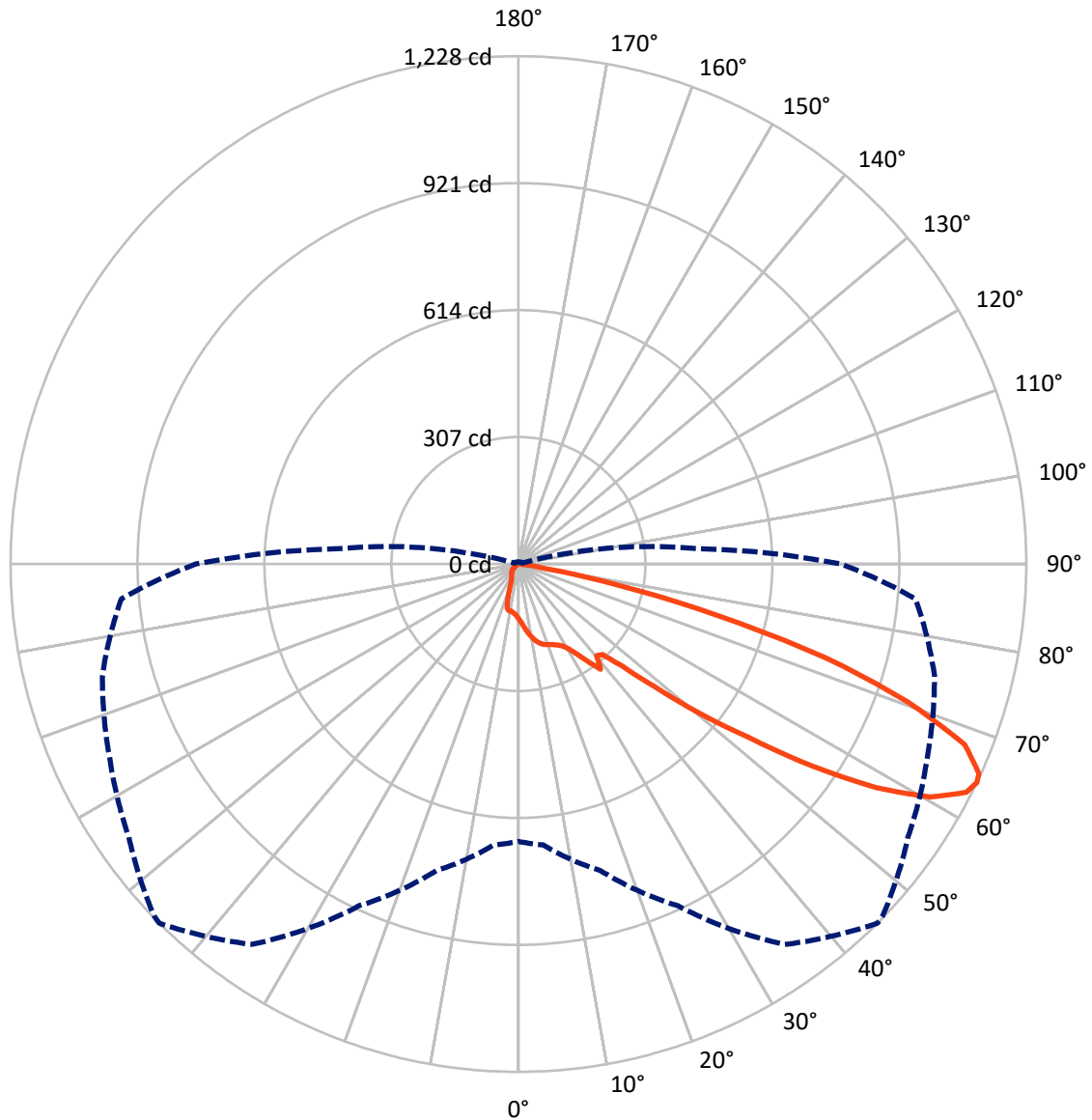
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 64-Deg Vertical

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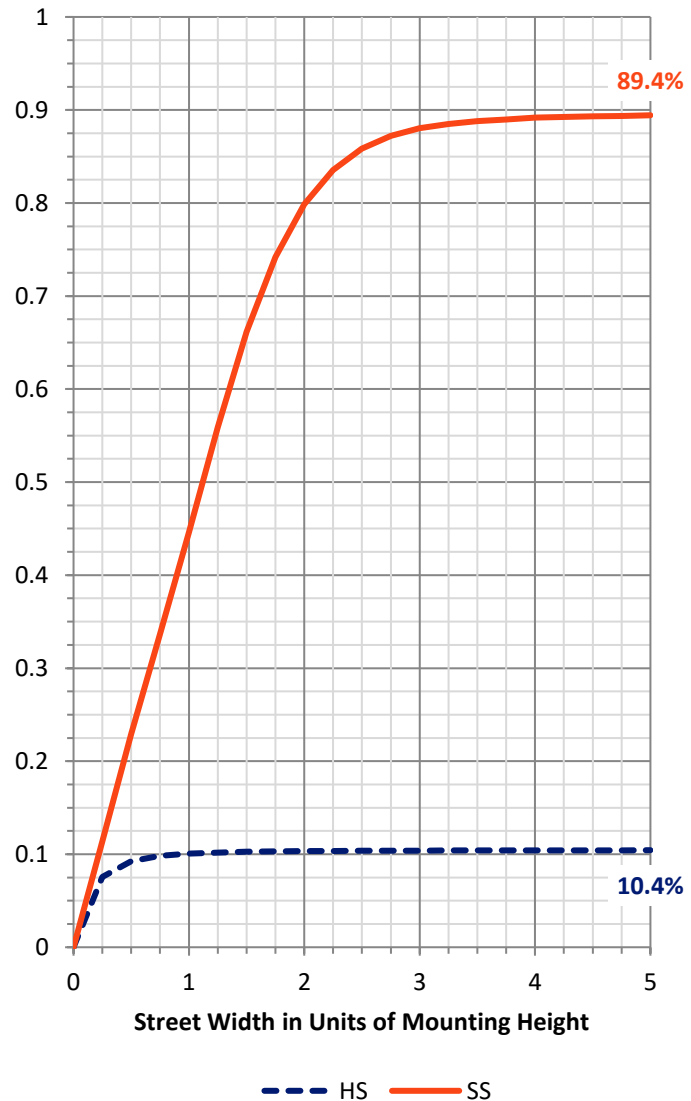
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	158.2	0.0	158.2
	% Fixture	10.6	0.0	10.6
Street Side	Lumens	1340.8	0.0	1340.8
	% Fixture	89.4	0.0	89.4
Total	Lumens	1499.0	0.0	1499.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	13.5	0.9
10°-20°	42.0	2.8
20°-30°	68.4	4.6
30°-40°	108.7	7.2
40°-50°	207.0	13.8
50°-60°	426.5	28.5
60°-70°	476.4	31.8
70°-80°	150.5	10.0
80°-90°	6.1	0.4
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°	1499.0	100.0
0°-180°	1499.0	100.0



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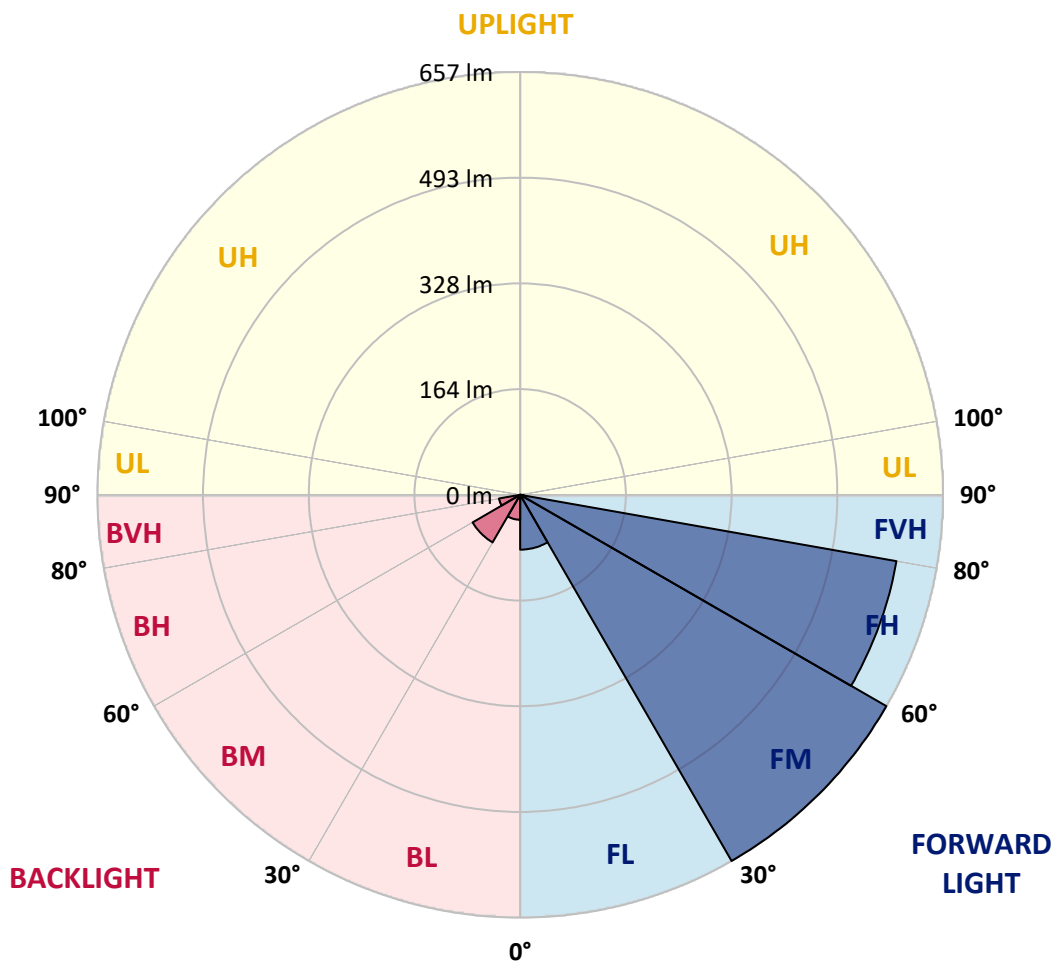
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	85.2	5.7			
FM	(30°-60°)	656.8	43.8			
FH	(60°-80°)	593.5	39.6			G0/660
FVH	(80°-90°)	5.4	0.4			G0/10
BL	(0°-30°)	38.7	2.6	B0/110		
BM	(30°-60°)	85.4	5.7	B0/220		
BH	(60°-80°)	33.3	2.2	B0/110		G0/110
BVH	(80°-90°)	0.7	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°	46°	55°	65°	75°	85°
0°	132.9	132.9	132.9	132.9	132.9	132.9	132.9	132.9	132.9	132.9	132.9
2.5°	146.6	147.2	146.3	145.2	144.0	142.0	142.3	139.7	137.7	136.3	134.0
5°	165.2	164.9	163.2	160.6	158.0	154.3	153.7	149.7	145.4	140.9	136.6
7.5°	184.0	183.2	181.4	178.0	173.2	168.3	166.9	161.2	154.9	148.0	140.6
10°	199.4	198.9	196.9	193.2	187.4	180.0	180.0	172.0	163.7	155.4	146.6
12.5°	212.0	211.4	209.2	204.6	197.7	191.2	190.3	183.2	174.0	164.3	153.4
15°	219.7	219.2	216.6	211.4	205.4	199.4	198.6	191.7	183.4	172.3	159.7
17.5°	221.7	221.2	219.2	214.6	210.0	204.9	203.7	197.7	190.6	179.2	166.3
20°	220.9	219.7	218.6	214.9	211.2	207.7	207.2	202.9	196.6	186.9	173.2
22.5°	218.6	217.4	216.6	214.0	212.0	211.7	211.2	208.6	204.6	196.3	183.4
25°	217.7	216.9	216.0	214.3	214.0	216.9	216.6	216.3	214.6	207.4	194.0
27.5°	222.6	222.3	220.3	217.4	218.9	223.7	224.0	225.4	224.3	219.7	209.4
30°	239.7	238.3	233.7	227.4	231.2	237.4	238.6	243.2	243.4	244.0	230.0
32.5°	262.9	260.6	252.9	244.9	247.2	258.9	259.2	266.3	281.4	272.0	241.2
35°	278.9	276.0	264.3	260.0	271.4	290.0	292.6	307.2	308.3	274.0	240.3
37.5°	323.7	319.5	298.0	272.0	283.2	323.2	326.0	323.5	299.5	271.2	252.6
40°	383.7	379.7	360.6	316.9	285.5	291.5	292.9	300.6	305.2	291.2	292.0
42.5°	461.7	456.6	436.9	383.5	321.2	299.2	302.0	317.7	347.7	354.3	388.0
45°	541.5	538.6	518.6	460.9	386.3	351.7	353.2	372.3	426.0	467.5	496.0
47.5°	619.5	620.0	602.9	554.0	481.2	442.9	441.2	466.0	534.0	563.5	592.6
50°	729.5	728.9	698.3	668.1	611.2	565.8	562.9	576.9	642.3	653.2	698.3
52.5°	854.6	854.1	808.1	793.8	769.8	696.6	704.3	692.3	739.5	758.9	822.9
55°	914.1	908.9	889.5	907.5	936.1	862.6	861.5	815.8	852.6	869.2	928.9
57.5°	908.1	910.1	928.6	988.4	1082.1	1020.6	1022.4	937.5	958.9	969.2	1012.9
60°	874.1	875.5	918.6	1018.1	1154.9	1144.4	1138.4	1051.2	1037.2	1032.9	1053.8
62.5°	776.9	777.5	847.5	975.2	1154.4	1215.8	1210.1	1131.2	1087.5	1060.1	1022.1
64°	671.2	682.1	767.8	912.1	1123.2	1228.4	1225.2	1150.7	1092.1	1041.8	963.8
65°	584.3	600.6	704.3	856.1	1088.1	1224.1	1220.4	1147.2	1085.8	1007.5	903.5
67.5°	398.6	407.2	500.3	673.8	954.1	1163.8	1162.7	1103.2	1017.5	870.4	708.9
70°	235.2	241.4	310.3	470.3	733.2	999.8	1014.9	993.5	844.6	625.2	451.5
72.5°	73.1	76.9	136.9	261.2	480.6	778.9	798.6	783.2	614.9	390.6	250.3
75°	27.4	28.6	45.1	113.4	239.2	498.0	504.0	522.0	374.6	206.3	109.4
77.5°	15.1	15.4	22.3	42.6	105.2	244.6	250.3	248.0	199.2	97.4	34.9
80°	7.4	7.7	10.9	18.9	40.9	69.1	82.0	108.3	70.3	48.0	11.1
82.5°	2.6	2.3	4.9	8.6	13.7	18.6	20.9	30.0	29.4	26.3	4.0
85°	0.0	0.0	0.3	0.3	0.3	0.6	0.6	3.7	7.4	8.6	1.1
87.5°	0.0	0.0	0.0	0.3	0.3	0.3	0.3	0.3	0.3	0.6	0.6
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°	132.9	132.9	132.9	132.9	132.9	132.9	132.9	132.9	132.9	132.9	132.9
2.5°	132.9	132.3	130.3	128.3	126.9	125.2	124.9	123.7	123.4	123.4	123.4
5°	134.3	132.6	128.9	125.7	122.9	120.3	119.2	118.0	117.2	116.9	116.9
7.5°	137.4	134.9	128.9	124.3	120.0	116.9	115.2	114.0	113.2	113.2	113.2
10°	142.0	138.0	130.6	124.3	119.2	115.2	112.6	110.9	109.7	109.4	109.7
12.5°	147.7	142.6	133.4	125.7	119.7	114.6	109.2	99.2	92.6	88.9	88.3
15°	153.2	147.2	136.6	127.7	120.6	109.2	89.4	74.0	63.7	60.6	60.0
17.5°	159.2	152.9	140.9	130.6	117.4	88.0	63.7	50.9	48.9	49.4	49.4
20°	166.6	159.2	145.4	133.4	101.2	62.6	46.6	44.9	45.4	46.6	46.6
22.5°	175.2	167.2	151.7	131.7	77.1	45.7	42.6	42.9	43.4	44.6	44.6
25°	186.3	178.0	158.6	118.9	53.7	40.0	40.3	40.6	41.4	42.6	42.9
27.5°	202.9	192.9	166.9	99.7	40.6	37.1	37.4	38.3	39.1	40.6	40.6
30°	220.6	208.3	174.3	76.9	35.4	34.0	34.3	35.1	36.6	37.7	38.3
32.5°	228.3	217.4	175.7	52.6	32.9	31.4	30.9	31.7	32.9	34.0	34.3
35°	232.6	228.0	168.9	38.0	30.9	29.1	28.0	27.7	28.0	28.9	28.9
37.5°	253.7	250.6	155.2	32.6	28.9	27.1	25.4	24.0	23.4	23.1	23.4
40°	294.3	287.5	137.2	30.0	27.1	25.1	22.9	20.6	18.6	17.7	17.7
42.5°	383.7	349.2	111.4	28.3	25.4	23.1	19.7	16.6	14.3	13.7	13.7
45°	480.0	425.7	83.7	26.9	23.7	20.9	16.6	13.1	11.1	10.6	10.6
47.5°	572.6	482.3	58.6	25.1	21.7	18.3	13.7	10.6	9.1	8.9	8.9
50°	669.8	531.5	40.9	23.1	19.7	15.7	11.1	8.6	7.7	7.7	7.7
52.5°	764.3	567.8	30.0	21.1	17.1	13.1	9.4	7.7	7.1	7.1	7.1
55°	835.8	581.8	22.9	18.6	14.6	11.1	8.6	7.4	6.9	6.6	6.6
57.5°	883.5	570.0	18.6	15.4	12.3	9.7	7.7	6.9	6.3	6.0	6.0
60°	882.4	531.2	14.9	12.6	10.0	8.3	7.1	6.3	5.7	5.4	5.4
62.5°	830.6	468.0	11.7	10.0	8.3	7.1	6.3	5.7	5.1	4.9	4.6
64°	780.1	428.9	10.0	8.6	7.4	6.6	5.7	5.1	4.6	4.0	4.0
65°	725.2	391.7	9.1	7.7	6.6	6.0	5.4	4.9	4.0	3.4	3.4
67.5°	551.5	290.0	7.4	6.0	5.1	4.9	4.3	3.7	2.9	2.3	2.3
70°	358.0	187.7	6.3	4.9	4.3	4.3	4.0	3.1	2.3	2.0	1.7
72.5°	183.4	93.4	5.1	4.0	3.7	3.7	3.4	2.6	2.0	1.7	1.4
75°	77.7	38.0	4.3	3.4	3.1	2.9	2.6	2.3	1.7	1.4	1.4
77.5°	27.1	14.3	4.0	3.4	2.6	2.3	2.3	2.3	2.3	2.0	1.7
80°	9.1	5.4	2.6	2.6	2.9	3.1	3.1	2.9	3.1	2.6	2.0
82.5°	3.7	2.0	0.9	1.1	2.0	2.3	2.6	2.6	2.6	2.0	1.7
85°	0.9	0.6	0.6	0.9	0.9	1.1	1.1	1.4	1.4	1.1	1.1
87.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.9	0.6	0.9	0.9	0.9
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)