

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: P401209

Luminaire Tested: **ENT-SA1B-827-U-T3-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401209  
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-SA1B-827-U-T3-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 80 CRI, 2700K, 450mA LIGHTSQUARE 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: 1936 lumens  
Efficiency: N/A  
Efficacy: 76.2 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): 25.4  
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

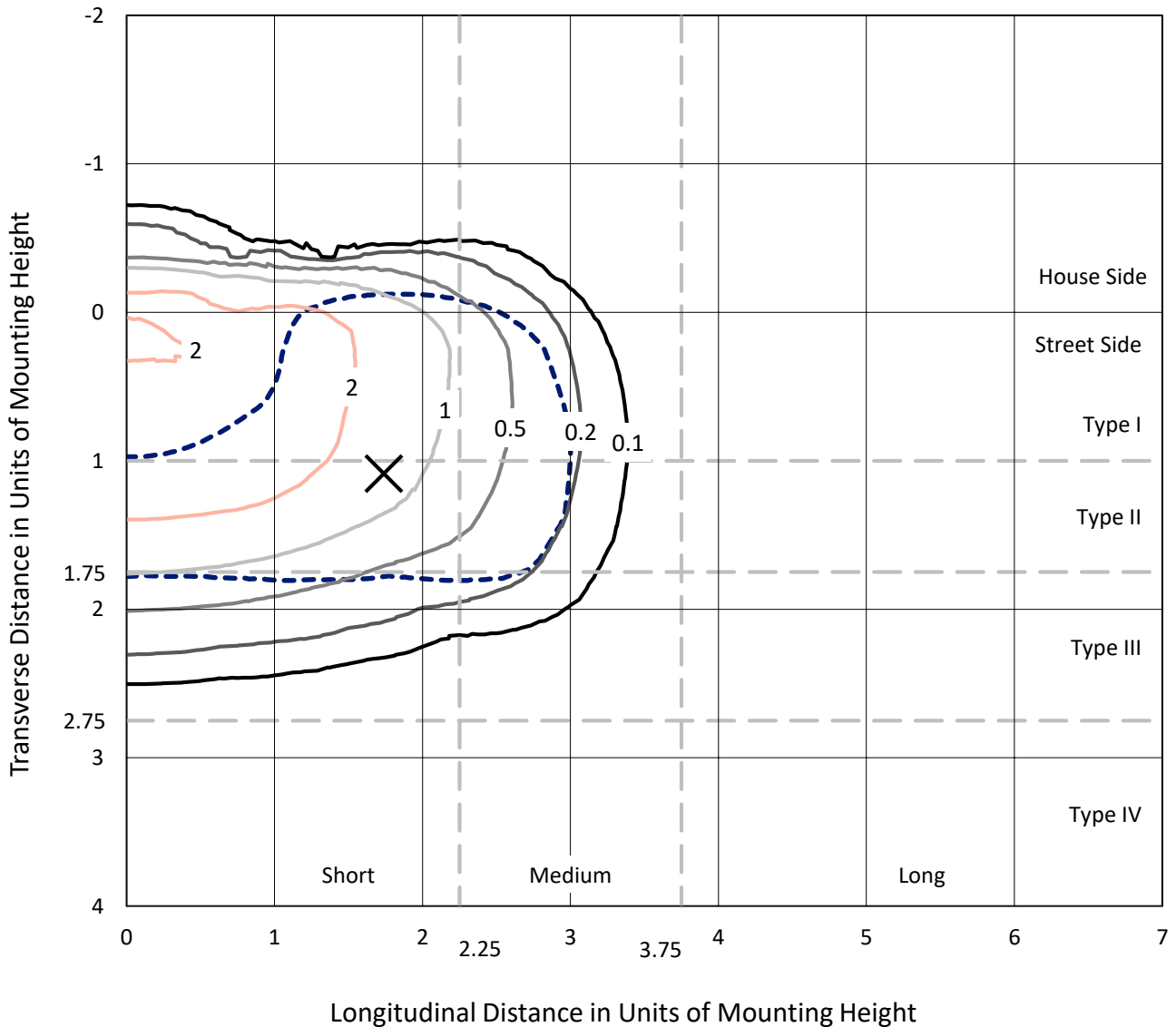


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

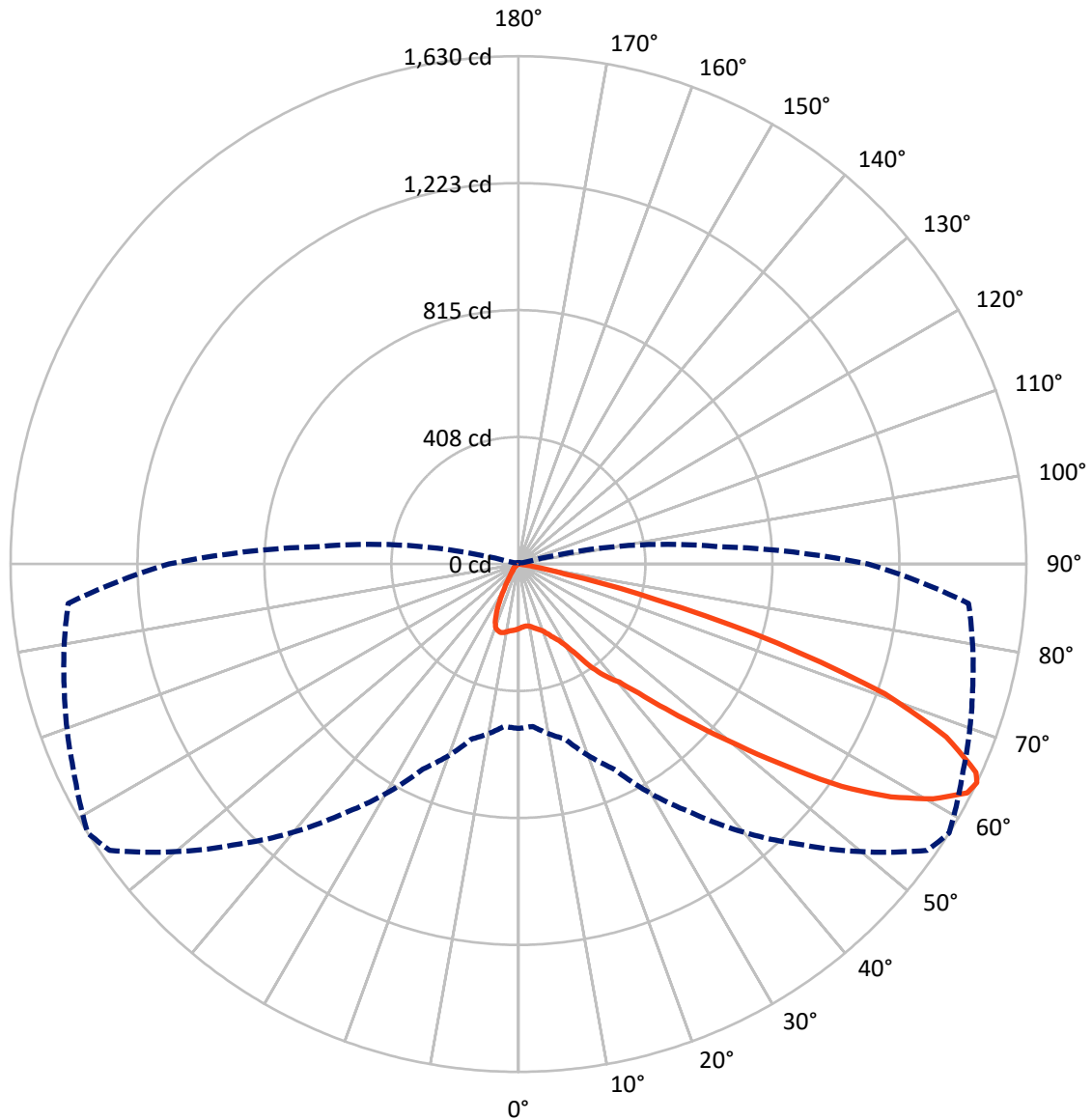


Based on 10 foot mounting height. Maximum calculated value = 3.1 fc  
 Type III - Short - Full Cutoff

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### Luminous Intensity Polar Plot



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

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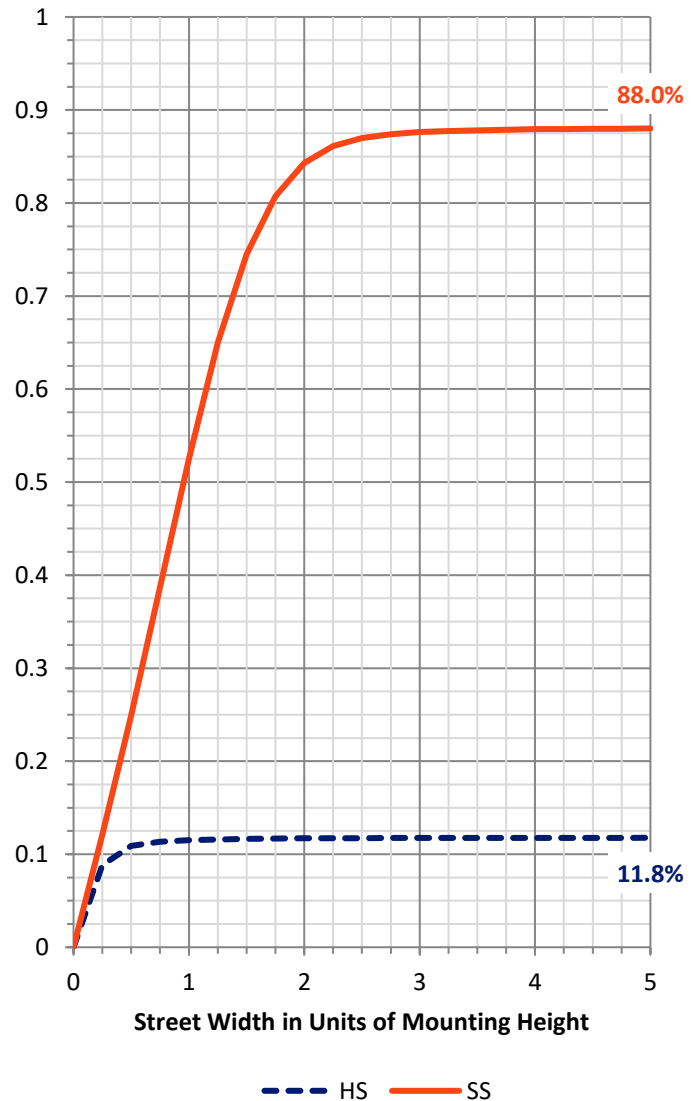
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	230.8	0.0	230.8
	% Fixture	11.9	0.0	11.9
<b>Street Side</b>	Lumens	1705.2	0.0	1705.2
	% Fixture	88.1	0.0	88.1
<b>Total</b>	Lumens	1936.0	0.0	1936.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	19.6	1.0
10°-20°	57.1	3.0
20°-30°	102.6	5.3
30°-40°	179.9	9.3
40°-50°	329.0	17.0
50°-60°	562.8	29.1
60°-70°	545.9	28.2
70°-80°	135.2	7.0
80°-90°	3.8	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°	1936.0	100.0
0°-180°	1936.0	100.0



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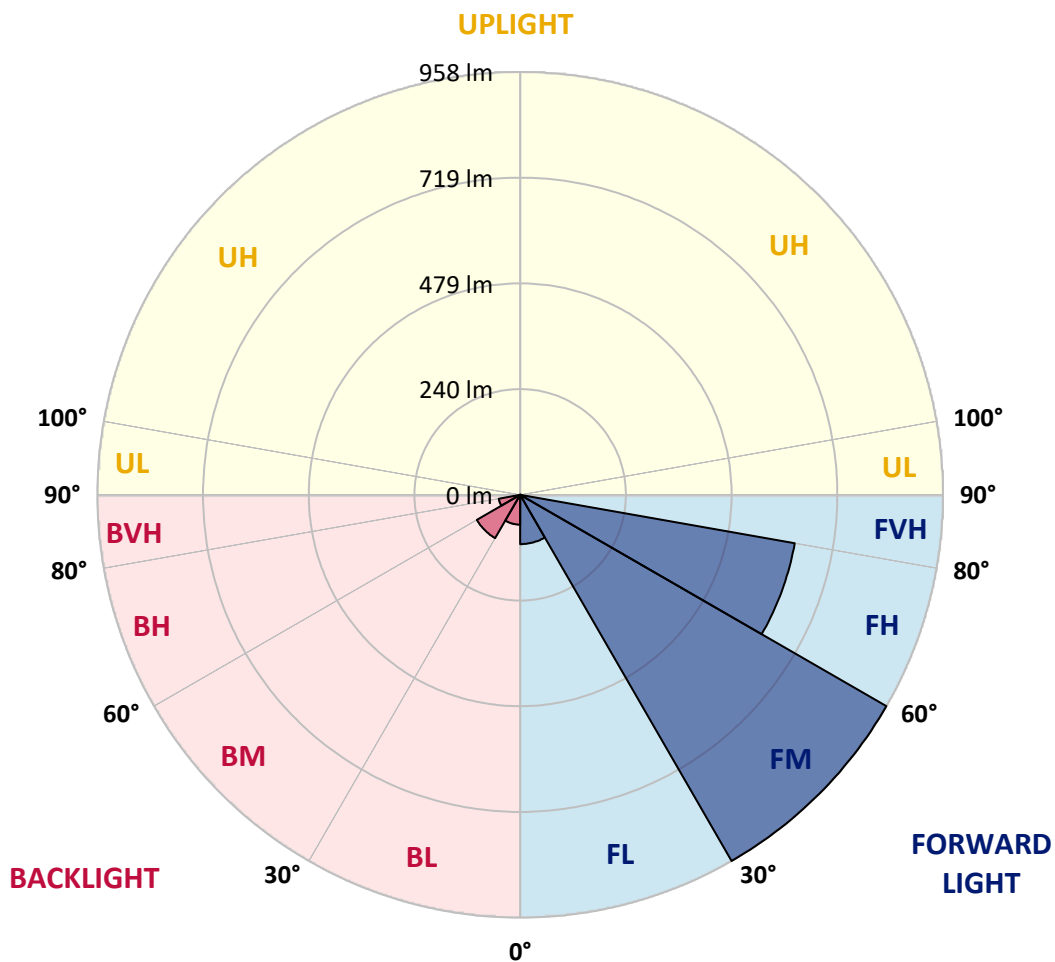
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	111.8	5.8			
FM	(30°-60°)	958.3	49.5			
FH	(60°-80°)	631.9	32.6			G0/660
FVH	(80°-90°)	3.3	0.2			G0/10
BL	(0°-30°)	67.6	3.5	B0/110		
BM	(30°-60°)	113.4	5.9	B0/220		
BH	(60°-80°)	49.3	2.5	B0/110		G0/110
BVH	(80°-90°)	0.6	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°	207.4	207.4	207.4	207.4	207.4	207.4	207.4	207.4	207.4	207.4	207.4
2.5°	198.8	198.8	199.5	199.9	200.9	202.0	203.4	203.8	204.5	206.3	207.0
5°	188.0	188.4	189.1	190.9	193.4	196.3	199.9	200.9	203.8	207.4	209.9
7.5°	183.7	184.1	185.2	187.3	190.5	194.8	199.1	200.6	204.5	210.2	213.8
10°	183.0	183.0	184.5	187.7	191.6	197.0	201.6	203.4	208.8	215.6	221.3
12.5°	183.0	183.0	184.8	188.8	193.4	200.2	206.7	209.2	215.3	223.9	231.0
15°	186.2	187.0	188.0	190.5	195.9	203.4	212.4	215.3	222.8	233.2	242.1
17.5°	209.2	208.5	204.9	201.6	200.6	207.0	217.8	221.7	232.8	246.1	255.7
20°	253.6	253.2	246.8	231.0	217.0	213.5	226.0	230.7	246.8	264.3	271.5
22.5°	307.3	309.1	299.1	277.9	249.3	231.0	238.2	244.6	265.4	286.5	290.8
25°	360.7	362.8	353.5	327.0	291.9	260.0	255.0	260.7	284.4	305.5	303.7
27.5°	423.7	421.9	412.6	382.5	341.7	299.1	277.6	278.7	296.9	320.6	314.8
30°	469.9	467.4	458.5	438.0	399.7	351.0	309.8	306.6	312.0	338.1	332.0
32.5°	512.2	514.0	507.2	479.9	443.8	404.4	358.2	349.6	347.4	369.6	359.6
35°	554.1	553.7	551.2	527.2	491.8	454.5	415.8	409.7	409.0	430.5	403.3
37.5°	604.2	601.7	597.1	572.7	544.4	509.0	467.8	458.1	456.3	460.6	428.7
40°	657.9	661.2	653.7	628.2	597.4	570.9	513.3	498.6	486.4	498.9	478.5
42.5°	737.8	740.3	727.1	709.5	669.8	645.1	586.7	566.6	560.9	579.9	556.9
45°	838.1	833.5	824.5	812.3	779.4	741.8	680.9	661.9	655.8	688.4	650.8
47.5°	916.2	915.5	915.8	913.3	908.3	863.2	790.8	777.9	771.8	818.8	777.2
50°	965.6	968.5	980.7	1011.8	1034.7	1015.8	930.9	915.1	910.5	959.2	902.9
52.5°	1002.9	1009.7	1030.1	1091.7	1165.1	1171.6	1101.4	1079.2	1068.4	1082.0	1003.9
55°	1021.8	1025.1	1056.2	1147.2	1262.2	1308.4	1279.0	1260.4	1217.0	1191.3	1122.5
57.5°	977.4	972.4	1026.1	1141.8	1312.3	1418.7	1431.2	1410.1	1340.6	1320.6	1266.5
60°	861.0	858.9	919.4	1058.4	1268.6	1444.5	1544.1	1530.8	1467.0	1419.4	1368.5
62.5°	656.9	660.5	724.6	866.0	1112.8	1370.3	1606.7	1617.5	1549.8	1478.9	1444.1
64°	527.6	523.3	582.0	726.0	976.4	1271.5	1602.1	1630.4	1574.9	1510.0	1450.9
65°	443.1	433.7	490.0	620.3	861.0	1199.9	1569.1	1614.6	1576.6	1517.5	1426.2
67.5°	233.2	238.2	262.2	376.8	581.3	907.2	1413.0	1481.7	1497.1	1414.8	1242.8
70°	104.6	105.3	120.7	192.3	321.6	588.5	1136.5	1247.8	1256.4	1162.2	900.4
72.5°	34.7	35.1	53.4	77.0	135.0	272.6	767.5	868.9	887.5	753.6	488.5
75°	21.5	22.2	28.3	41.5	62.7	95.3	389.0	457.7	461.7	334.2	177.6
77.5°	13.6	14.3	17.2	24.7	34.4	36.2	127.5	154.4	174.8	120.3	55.2
80°	8.6	8.6	11.1	15.0	17.9	15.4	34.7	45.8	55.2	40.5	18.6
82.5°	3.2	3.2	5.7	8.2	7.5	5.4	9.3	12.2	21.1	20.1	9.0
85°	0.0	0.0	0.4	0.7	0.4	0.7	1.8	2.5	3.9	5.7	2.9
87.5°	0.0	0.0	0.0	0.0	0.4	0.4	0.7	0.7	0.7	0.7	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



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	207.4	207.4	207.4	207.4	207.4	207.4	207.4	207.4	207.4	207.4	207.4
2.5°	208.1	208.8	210.2	210.6	211.0	209.9	211.0	209.9	210.6	210.6	210.6
5°	211.3	212.4	213.5	213.8	213.5	211.0	211.7	209.9	209.5	209.5	209.5
7.5°	215.6	216.7	218.5	217.4	215.3	211.7	211.3	208.8	207.7	207.7	208.1
10°	223.5	224.6	225.3	223.1	218.8	213.5	209.5	204.2	201.6	200.6	200.6
12.5°	233.5	234.6	234.2	230.7	222.8	211.7	200.6	190.2	182.7	179.8	176.9
15°	244.3	245.7	245.0	237.5	222.4	202.7	181.2	156.9	141.8	132.2	130.4
17.5°	256.8	258.2	254.7	241.0	217.0	183.7	142.9	110.0	88.1	79.9	79.5
20°	272.2	271.5	262.9	241.4	207.4	148.6	95.6	68.8	59.5	57.3	56.9
22.5°	289.8	286.5	270.8	239.3	180.9	101.0	61.6	54.4	53.4	52.7	52.7
25°	299.8	294.1	273.6	233.2	139.3	64.5	52.3	50.9	49.4	48.0	47.6
27.5°	307.7	299.1	274.7	213.1	92.8	49.4	47.3	45.8	43.7	41.5	41.2
30°	322.0	309.1	276.5	178.0	56.9	42.3	41.2	38.7	35.5	33.3	32.6
32.5°	347.8	329.2	283.7	133.2	41.5	37.2	34.4	31.2	27.6	25.4	25.4
35°	375.4	348.1	287.2	87.8	36.2	32.6	28.3	24.4	21.1	19.3	19.0
37.5°	400.8	375.4	286.2	53.7	32.2	27.9	23.3	19.3	16.5	15.0	15.0
40°	452.7	423.0	271.5	36.9	28.3	23.6	19.0	15.0	13.3	12.2	12.2
42.5°	526.9	475.3	238.9	31.5	24.7	19.7	15.0	12.5	11.1	10.0	10.0
45°	610.0	532.9	190.5	28.3	21.5	16.5	12.5	10.4	9.0	8.6	8.6
47.5°	718.8	602.8	140.0	25.4	18.6	14.0	10.4	8.6	7.9	7.5	7.5
50°	814.1	659.4	95.6	22.2	16.5	11.8	9.0	7.9	7.2	6.8	6.8
52.5°	900.8	698.8	63.0	19.3	14.7	9.7	8.2	7.2	6.8	6.4	6.4
55°	1002.9	728.9	42.6	16.8	12.9	9.0	7.9	7.2	6.4	6.4	6.1
57.5°	1089.5	746.8	30.4	14.3	11.5	8.2	7.5	6.8	6.1	5.7	5.7
60°	1140.0	725.6	22.2	12.5	10.0	7.5	6.8	6.1	5.7	5.4	5.4
62.5°	1154.0	684.8	17.2	10.7	8.6	6.8	6.1	5.4	5.0	4.7	4.7
64°	1121.8	641.1	14.7	9.3	7.5	6.1	5.7	5.0	4.3	3.6	3.6
65°	1076.3	600.6	13.3	8.6	6.8	5.7	5.4	4.7	3.6	2.9	2.9
67.5°	896.8	478.9	10.7	7.2	5.4	5.0	4.3	3.6	2.5	1.8	1.8
70°	636.8	334.9	8.2	5.7	4.7	4.7	3.9	2.9	1.4	0.7	0.7
72.5°	337.0	174.1	6.8	4.7	3.6	3.6	3.2	1.8	1.1	0.7	0.4
75°	117.8	57.3	5.7	3.9	3.2	2.5	2.1	1.4	1.1	0.7	0.4
77.5°	35.8	19.0	5.0	3.9	2.9	2.1	2.5	2.1	2.1	1.4	1.1
80°	11.5	6.8	2.9	2.5	2.9	2.9	2.5	2.1	2.5	1.8	1.4
82.5°	4.3	2.5	1.1	1.4	1.4	1.8	1.8	1.4	1.1	0.4	0.0
85°	1.4	1.1	0.7	1.1	1.1	1.1	0.7	0.7	0.4	0.0	0.0
87.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.4	0.4	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)