

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: P401569

Luminaire Tested: **ENT-SA1D-827-U-T3-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401569
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-SA1D-827-U-T3-HSS
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 2700K, 800mA 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: 3189 lumens
Efficiency: N/A
Efficacy: 74.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 43.1
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

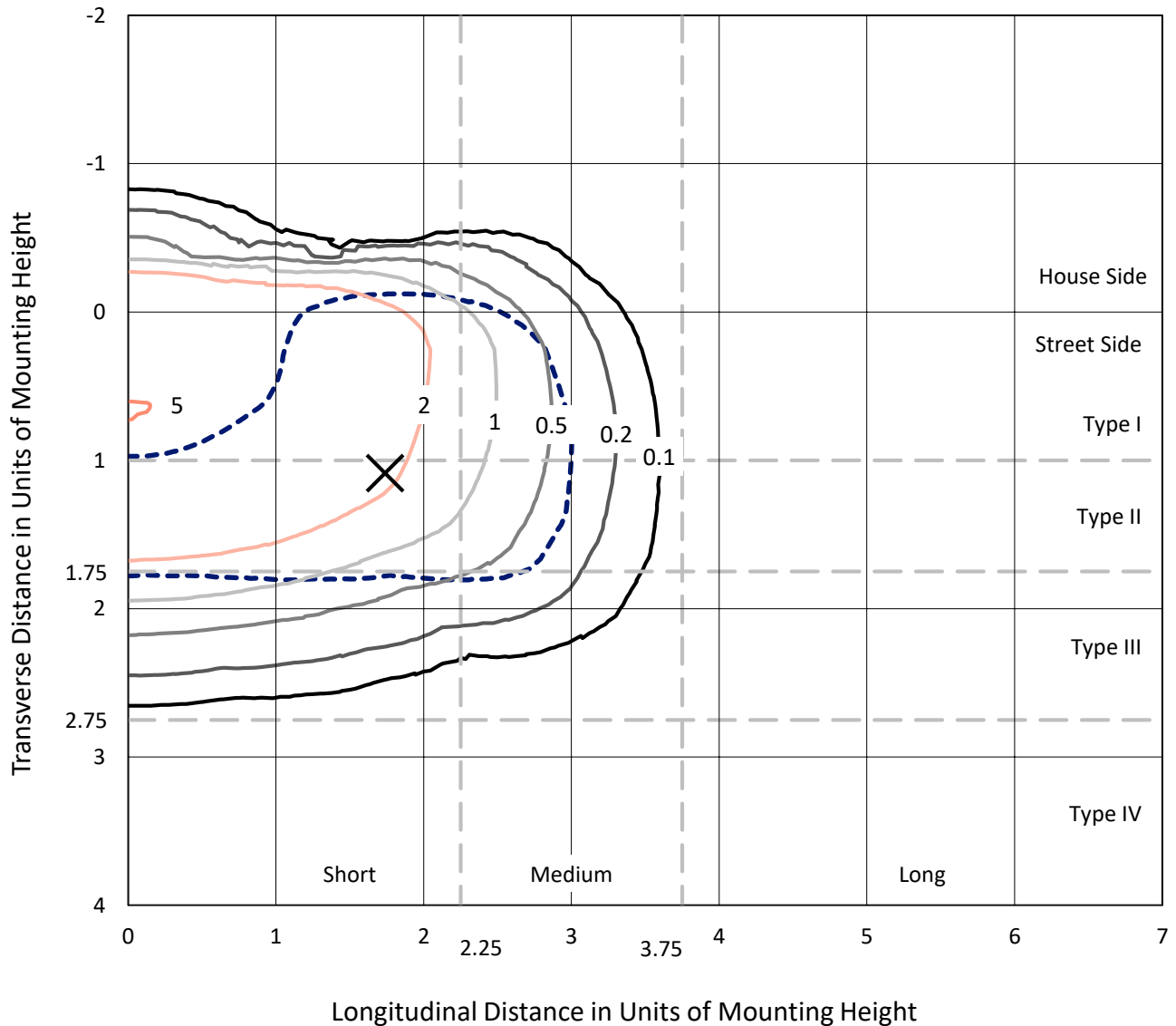


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

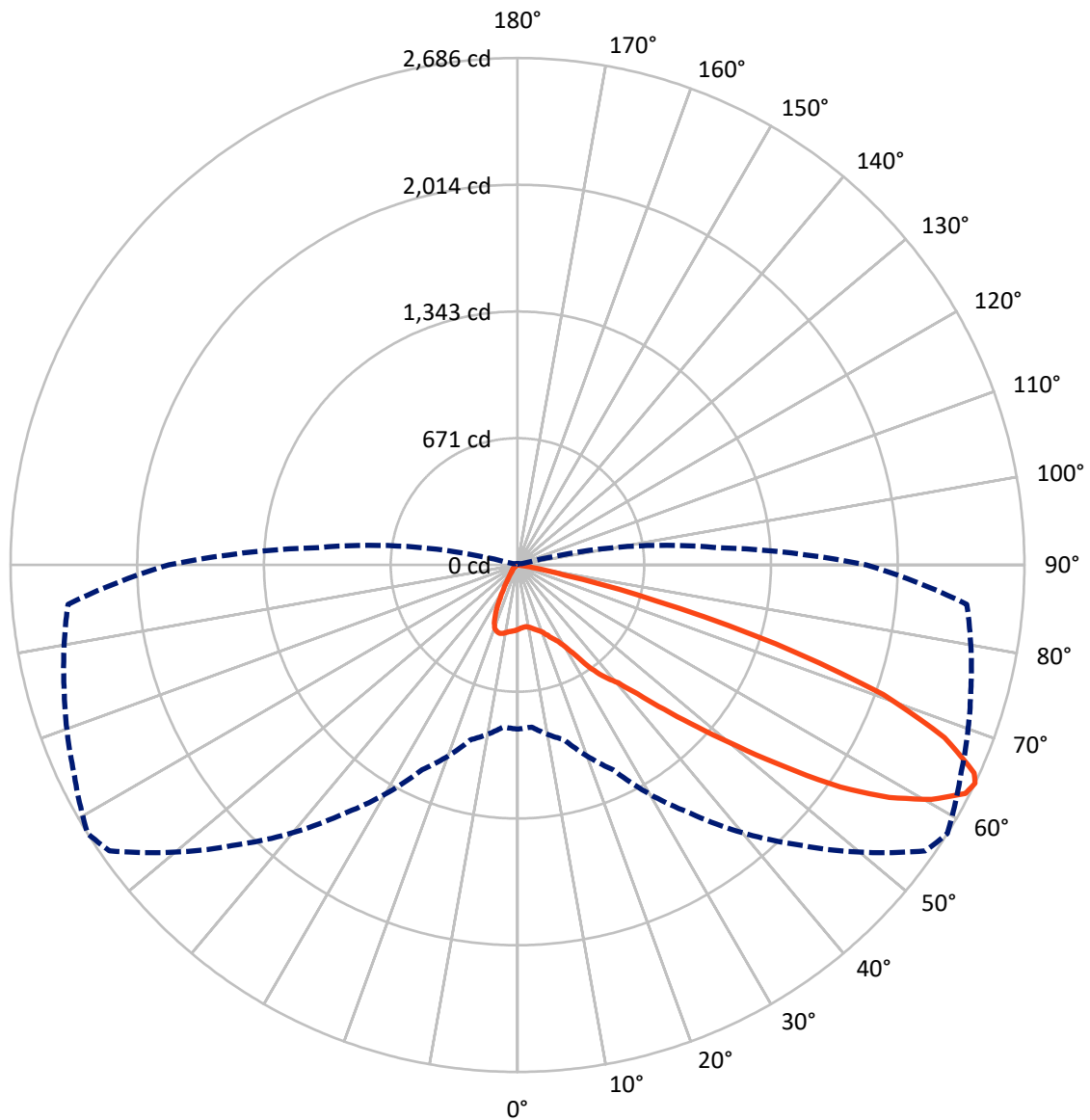


Based on 10 foot mounting height. Maximum calculated value = 5.1 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



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

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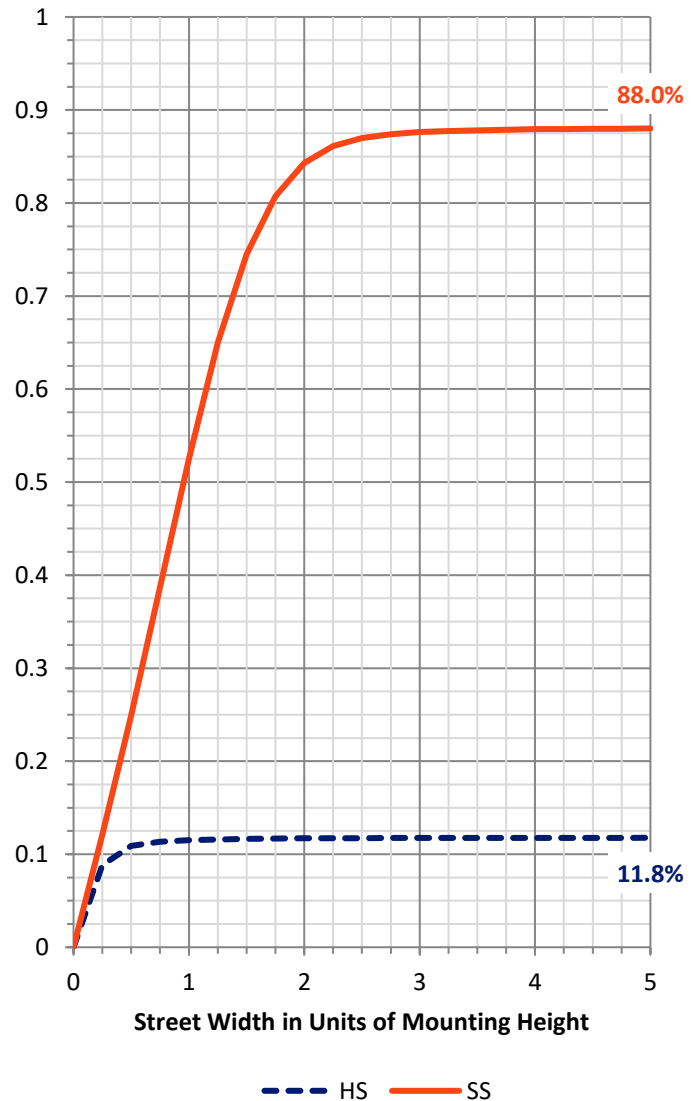
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	380.2	0.0	380.2
	% Fixture	11.9	0.0	11.9
Street Side	Lumens	2808.8	0.0	2808.8
	% Fixture	88.1	0.0	88.1
Total	Lumens	3189.0	0.0	3189.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.3	1.0
10°-20°	94.1	3.0
20°-30°	169.1	5.3
30°-40°	296.4	9.3
40°-50°	541.9	17.0
50°-60°	927.0	29.1
60°-70°	899.3	28.2
70°-80°	222.7	7.0
80°-90°	6.3	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°	3189.0	100.0
0°-180°	3189.0	100.0



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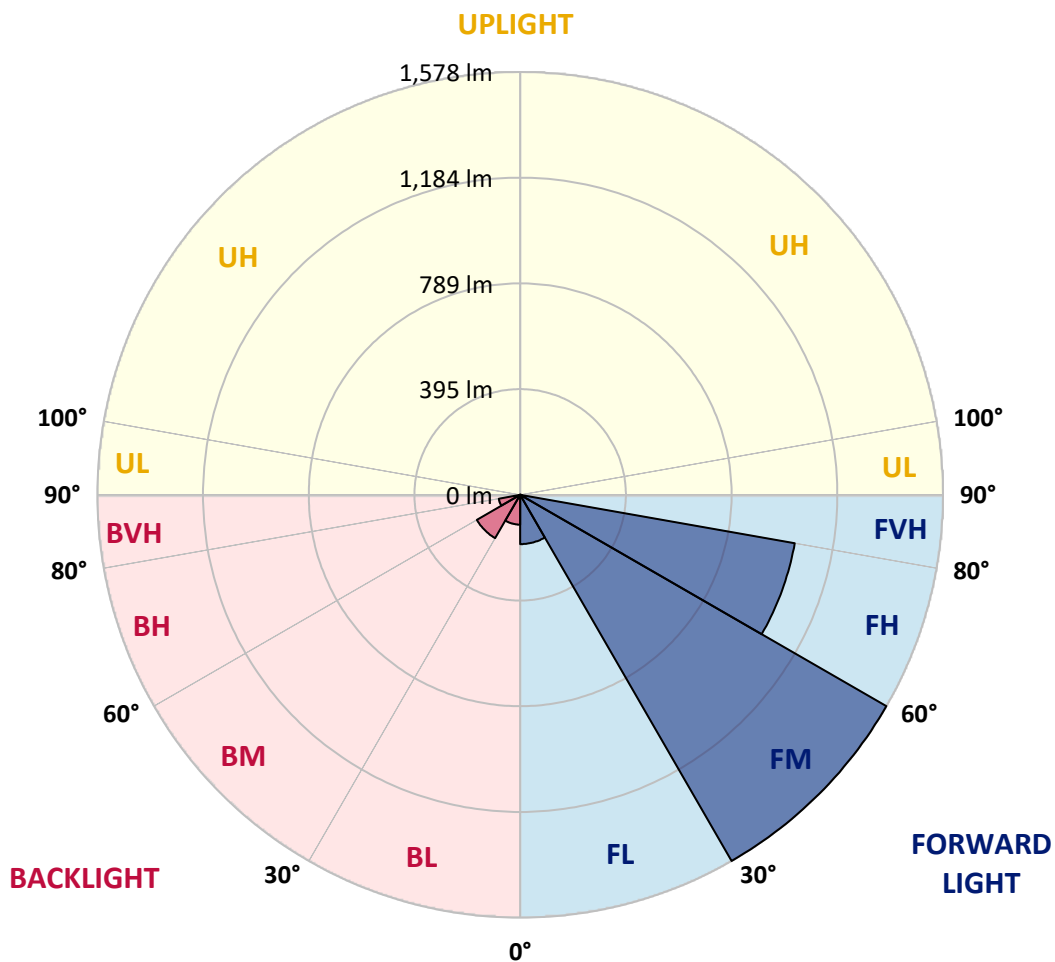
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	184.1	5.8			
FM	(30°-60°)	1578.5	49.5			
FH	(60°-80°)	1040.8	32.6			G1/1800
FVH	(80°-90°)	5.4	0.2			G0/10
BL	(0°-30°)	111.3	3.5	B1/500		
BM	(30°-60°)	186.7	5.9	B0/220		
BH	(60°-80°)	81.2	2.5	B0/110		G0/110
BVH	(80°-90°)	1.0	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	341.6	341.6	341.6	341.6	341.6	341.6	341.6	341.6	341.6	341.6	341.6
2.5°	327.4	327.4	328.6	329.2	331.0	332.7	335.1	335.7	336.9	339.8	341.0
5°	309.7	310.3	311.5	314.5	318.6	323.3	329.2	331.0	335.7	341.6	345.7
7.5°	302.7	303.2	305.0	308.6	313.9	320.9	328.0	330.4	336.9	346.3	352.2
10°	301.5	301.5	303.8	309.1	315.6	324.5	332.2	335.1	344.0	355.2	364.6
12.5°	301.5	301.5	304.4	310.9	318.6	329.8	340.4	344.5	354.6	368.7	380.5
15°	306.8	308.0	309.7	313.9	322.7	335.1	349.9	354.6	367.0	384.1	398.8
17.5°	344.5	343.4	337.5	332.2	330.4	341.0	358.7	365.2	383.5	405.3	421.2
20°	417.7	417.1	406.5	380.5	357.5	351.6	372.3	379.9	406.5	435.4	447.2
22.5°	506.2	509.1	492.6	457.8	410.6	380.5	392.3	403.0	437.2	472.0	479.1
25°	594.1	597.6	582.3	538.6	480.8	428.3	420.1	429.5	468.4	503.2	500.3
27.5°	697.9	695.0	679.6	630.1	562.8	492.6	457.2	459.0	489.1	528.0	518.6
30°	774.0	769.9	755.2	721.5	658.4	578.2	510.3	505.0	513.9	556.9	546.9
32.5°	843.7	846.6	835.4	790.6	731.0	666.1	590.0	575.8	572.3	608.9	592.3
35°	912.7	912.1	908.0	868.4	810.0	748.7	685.0	674.9	673.7	709.1	664.3
37.5°	995.3	991.2	983.5	943.4	896.8	838.4	770.5	754.6	751.6	758.7	706.2
40°	1083.8	1089.1	1076.7	1034.8	984.1	940.4	845.4	821.2	801.2	821.8	788.2
42.5°	1215.3	1219.5	1197.6	1168.7	1103.3	1062.5	966.4	933.3	923.9	955.2	917.4
45°	1380.5	1372.9	1358.1	1338.1	1283.8	1221.8	1121.5	1090.3	1080.2	1133.9	1072.0
47.5°	1509.2	1508.0	1508.6	1504.4	1496.2	1421.8	1302.7	1281.4	1271.4	1348.7	1280.2
50°	1590.6	1595.3	1615.3	1666.7	1704.4	1673.2	1533.3	1507.4	1499.7	1579.9	1487.3
52.5°	1651.9	1663.1	1696.8	1798.2	1919.2	1929.8	1814.2	1777.6	1759.9	1782.3	1653.7
55°	1683.2	1688.5	1739.8	1889.7	2079.1	2155.2	2106.8	2076.1	2004.7	1962.3	1849.0
57.5°	1610.0	1601.8	1690.3	1880.8	2161.7	2336.9	2357.5	2322.7	2208.3	2175.2	2086.1
60°	1418.3	1414.8	1514.5	1743.4	2089.7	2379.4	2543.4	2521.5	2416.5	2338.1	2254.3
62.5°	1082.0	1087.9	1193.5	1426.6	1833.0	2257.2	2646.6	2664.3	2552.8	2436.0	2378.8
64°	869.0	862.0	958.7	1195.9	1608.3	2094.4	2639.0	2685.6	2594.1	2487.3	2390.0
65°	729.8	714.5	807.1	1021.8	1418.3	1976.4	2584.7	2659.6	2597.1	2499.7	2349.3
67.5°	384.1	392.3	431.9	620.7	957.5	1494.4	2327.4	2440.7	2466.1	2330.4	2047.2
70°	172.3	173.5	198.8	316.8	529.8	969.3	1872.0	2055.5	2069.6	1914.5	1483.2
72.5°	57.2	57.8	87.9	126.8	222.4	449.0	1264.3	1431.3	1462.0	1241.3	804.7
75°	35.4	36.6	46.6	68.4	103.2	156.9	640.7	754.0	760.5	550.4	292.6
77.5°	22.4	23.6	28.3	40.7	56.6	59.6	210.0	254.3	287.9	198.2	90.9
80°	14.2	14.2	18.3	24.8	29.5	25.4	57.2	75.5	90.9	66.7	30.7
82.5°	5.3	5.3	9.4	13.6	12.4	8.8	15.3	20.1	34.8	33.0	14.7
85°	0.0	0.0	0.6	1.2	0.6	1.2	2.9	4.1	6.5	9.4	4.7
87.5°	0.0	0.0	0.0	0.0	0.6	0.6	1.2	1.2	1.2	1.2	1.2
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°	341.6	341.6	341.6	341.6	341.6	341.6	341.6	341.6	341.6	341.6	341.6
2.5°	342.8	344.0	346.3	346.9	347.5	345.7	347.5	345.7	346.9	346.9	346.9
5°	348.1	349.9	351.6	352.2	351.6	347.5	348.7	345.7	345.1	345.1	345.1
7.5°	355.2	356.9	359.9	358.1	354.6	348.7	348.1	344.0	342.2	342.2	342.8
10°	368.1	369.9	371.1	367.6	360.5	351.6	345.1	336.3	332.2	330.4	330.4
12.5°	384.7	386.4	385.8	379.9	367.0	348.7	330.4	313.3	300.9	296.2	291.4
15°	402.4	404.7	403.5	391.2	366.4	333.9	298.5	258.4	233.6	217.7	214.8
17.5°	423.0	425.4	419.5	397.1	357.5	302.7	235.4	181.1	145.1	131.6	131.0
20°	448.4	447.2	433.0	397.6	341.6	244.8	157.5	113.3	97.9	94.4	93.8
22.5°	477.3	472.0	446.0	394.1	297.9	166.4	101.5	89.7	87.9	86.7	86.7
25°	493.8	484.4	450.7	384.1	229.5	106.2	86.1	83.8	81.4	79.1	78.5
27.5°	506.8	492.6	452.5	351.0	152.8	81.4	77.9	75.5	72.0	68.4	67.8
30°	530.4	509.1	455.5	293.2	93.8	69.6	67.8	63.7	58.4	54.9	53.7
32.5°	572.9	542.2	467.3	219.5	68.4	61.4	56.6	51.3	45.4	41.9	41.9
35°	618.3	573.5	473.2	144.5	59.6	53.7	46.6	40.1	34.8	31.9	31.3
37.5°	660.2	618.3	471.4	88.5	53.1	46.0	38.3	31.9	27.1	24.8	24.8
40°	745.7	696.8	447.2	60.8	46.6	38.9	31.3	24.8	21.8	20.1	20.1
42.5°	867.9	782.9	393.5	51.9	40.7	32.4	24.8	20.6	18.3	16.5	16.5
45°	1004.7	877.9	313.9	46.6	35.4	27.1	20.6	17.1	14.7	14.2	14.2
47.5°	1184.1	992.9	230.7	41.9	30.7	23.0	17.1	14.2	13.0	12.4	12.4
50°	1341.0	1086.1	157.5	36.6	27.1	19.5	14.7	13.0	11.8	11.2	11.2
52.5°	1483.8	1151.0	103.8	31.9	24.2	15.9	13.6	11.8	11.2	10.6	10.6
55°	1651.9	1200.6	70.2	27.7	21.2	14.7	13.0	11.8	10.6	10.6	10.0
57.5°	1794.7	1230.1	50.1	23.6	18.9	13.6	12.4	11.2	10.0	9.4	9.4
60°	1877.9	1195.3	36.6	20.6	16.5	12.4	11.2	10.0	9.4	8.8	8.8
62.5°	1900.9	1128.0	28.3	17.7	14.2	11.2	10.0	8.8	8.3	7.7	7.7
64°	1847.8	1056.1	24.2	15.3	12.4	10.0	9.4	8.3	7.1	5.9	5.9
65°	1772.9	989.4	21.8	14.2	11.2	9.4	8.8	7.7	5.9	4.7	4.7
67.5°	1477.3	788.8	17.7	11.8	8.8	8.3	7.1	5.9	4.1	2.9	2.9
70°	1049.0	551.6	13.6	9.4	7.7	7.7	6.5	4.7	2.4	1.2	1.2
72.5°	555.2	286.7	11.2	7.7	5.9	5.9	5.3	2.9	1.8	1.2	0.6
75°	194.1	94.4	9.4	6.5	5.3	4.1	3.5	2.4	1.8	1.2	0.6
77.5°	59.0	31.3	8.3	6.5	4.7	3.5	4.1	3.5	3.5	2.4	1.8
80°	18.9	11.2	4.7	4.1	4.7	4.7	4.1	3.5	4.1	2.9	2.4
82.5°	7.1	4.1	1.8	2.4	2.4	2.9	2.9	2.4	1.8	0.6	0.0
85°	2.4	1.8	1.2	1.8	1.8	1.8	1.2	1.2	0.6	0.0	0.0
87.5°	1.2	1.2	1.2	1.2	1.2	1.2	0.6	0.6	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)