

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: P401753

Luminaire Tested: **ENT-SA1E-827-U-T4W-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401753  
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-SA1E-827-U-T4W-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 80 CRI, 2700K, 1050mA 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: 3856 lumens  
Efficiency: N/A  
Efficacy: 67.4 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 - G1

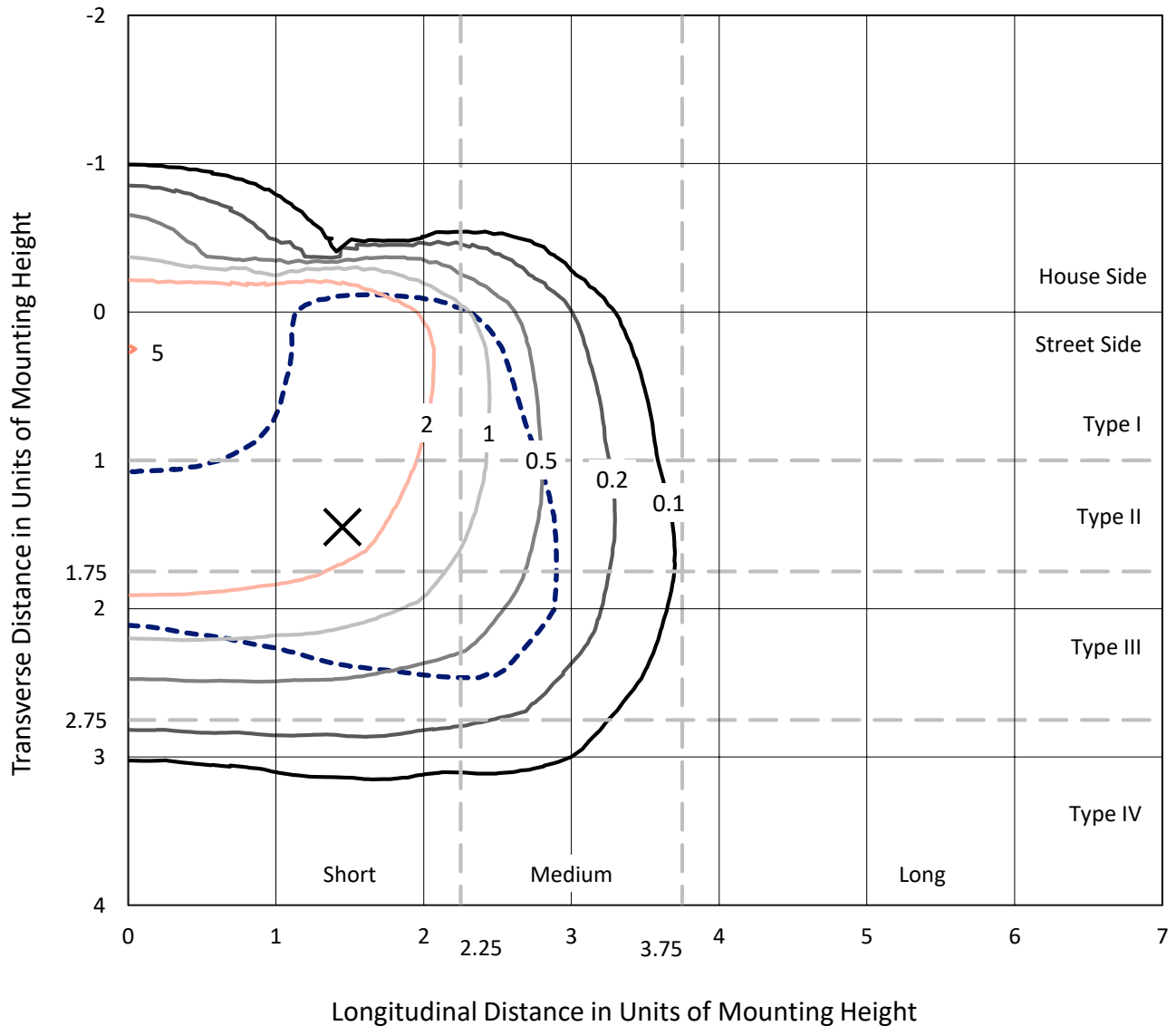
Input Watts (W): 57.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

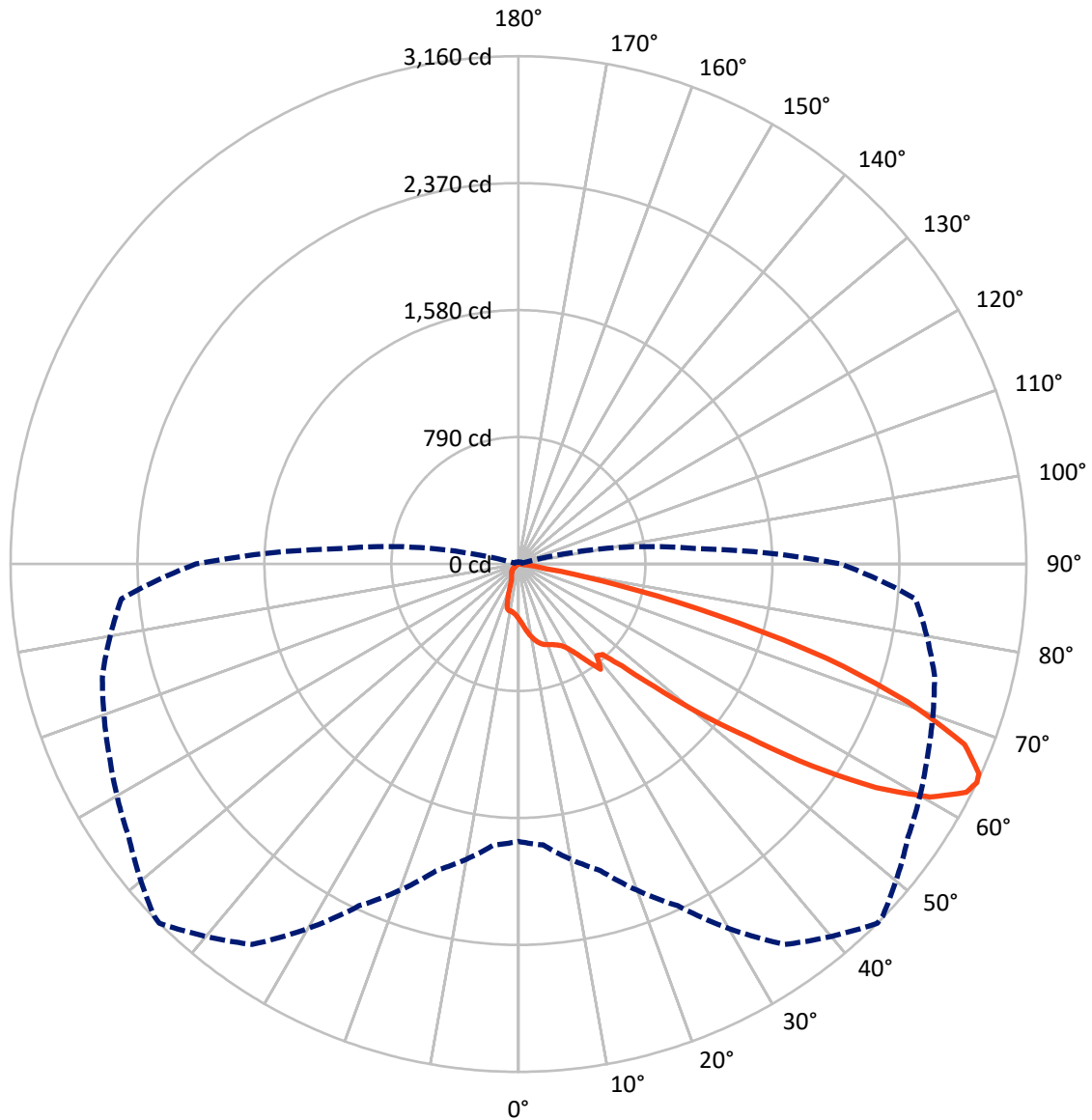
× Max cd  
 - - - 1/2 Max cd



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

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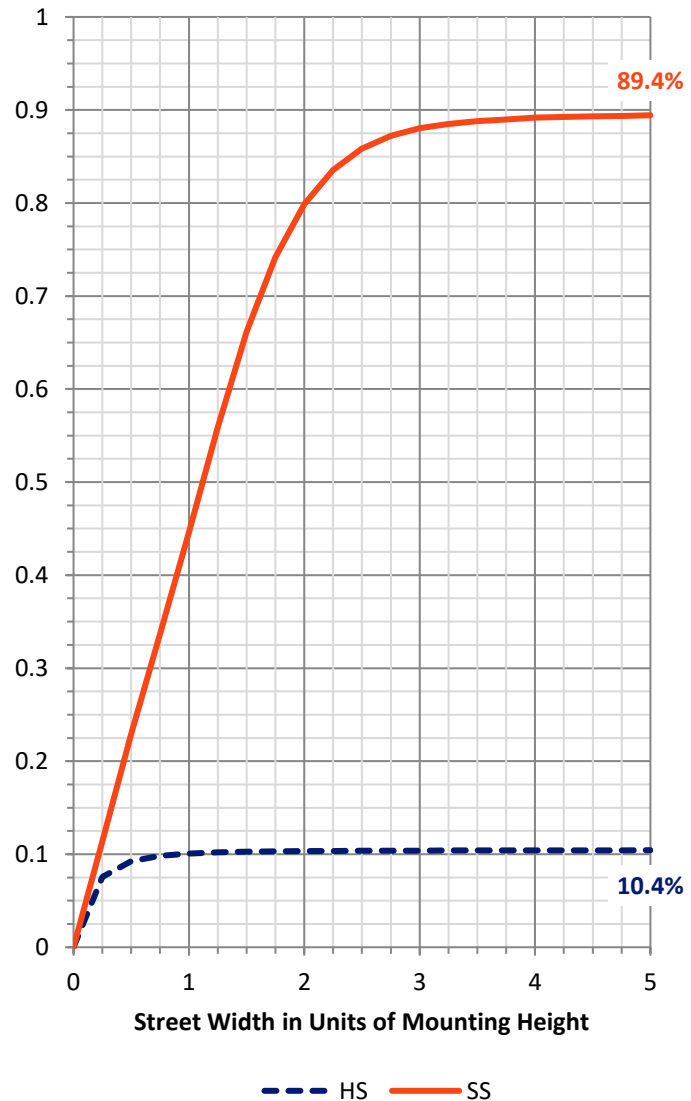
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	406.9	0.0	406.9
	% Fixture	10.6	0.0	10.6
<b>Street Side</b>	Lumens	3449.1	0.0	3449.1
	% Fixture	89.4	0.0	89.4
<b>Total</b>	Lumens	3856.0	0.0	3856.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	34.7	0.9
10°-20°	108.1	2.8
20°-30°	176.0	4.6
30°-40°	279.5	7.2
40°-50°	532.4	13.8
50°-60°	1097.2	28.5
60°-70°	1225.4	31.8
70°-80°	387.0	10.0
80°-90°	15.7	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°	3856.0	100.0
0°-180°	3856.0	100.0



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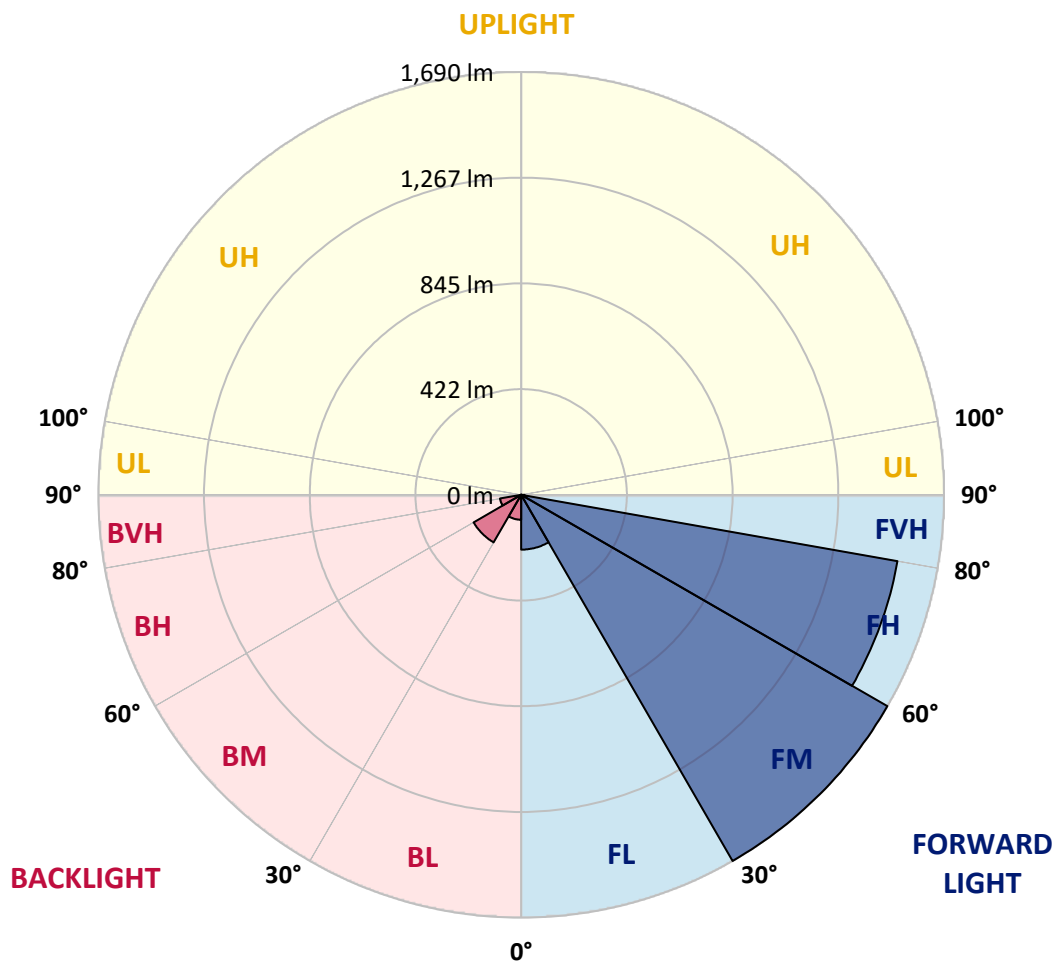
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	219.0	5.7			
FM	(30°-60°)	1689.6	43.8			
FH	(60°-80°)	1526.7	39.6			G1/1800
FVH	(80°-90°)	13.9	0.4			G1/100
BL	(0°-30°)	99.7	2.6	B0/110		
BM	(30°-60°)	219.6	5.7	B0/220		
BH	(60°-80°)	85.8	2.2	B0/110		G0/110
BVH	(80°-90°)	1.9	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-G1**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	341.8	341.8	341.8	341.8	341.8	341.8	341.8	341.8	341.8	341.8	341.8
2.5°	377.1	378.5	376.3	373.4	370.5	365.3	366.0	359.4	354.3	350.6	344.7
5°	424.8	424.1	419.7	413.1	406.5	396.9	395.4	385.2	374.1	362.4	351.3
7.5°	473.4	471.1	466.7	457.9	445.4	432.9	429.3	414.6	398.4	380.7	361.6
10°	513.0	511.6	506.4	496.9	482.2	463.1	463.1	442.5	421.2	399.9	377.1
12.5°	545.4	543.9	538.0	526.3	508.6	491.7	489.5	471.1	447.6	422.6	394.7
15°	565.2	563.8	557.1	543.9	528.5	513.0	510.8	493.2	471.9	443.2	410.9
17.5°	570.4	568.9	563.8	552.0	540.2	527.0	524.1	508.6	490.3	460.9	427.8
20°	568.2	565.2	562.3	552.7	543.2	534.4	532.9	521.9	505.7	480.7	445.4
22.5°	562.3	559.4	557.1	550.5	545.4	544.7	543.2	536.6	526.3	505.0	471.9
25°	560.1	557.9	555.7	551.3	550.5	557.9	557.1	556.4	552.0	533.6	499.1
27.5°	572.6	571.8	566.7	559.4	563.0	575.5	576.3	579.9	577.0	565.2	538.8
30°	616.7	613.0	601.2	585.1	594.6	610.8	613.7	625.5	626.2	627.7	591.7
32.5°	676.2	670.3	650.5	629.9	635.8	665.9	666.7	685.0	724.0	699.7	620.4
35°	717.4	710.0	679.9	668.9	698.3	746.0	752.7	790.1	793.1	704.9	618.2
37.5°	832.8	821.8	766.6	699.7	728.4	831.3	838.7	832.0	770.3	697.5	649.8
40°	987.1	976.8	927.6	815.1	734.3	749.7	753.4	773.2	785.0	749.0	751.2
42.5°	1187.8	1174.6	1123.8	986.4	826.2	769.6	776.9	817.3	894.5	911.4	998.2
45°	1392.9	1385.5	1334.1	1185.6	993.7	904.8	908.5	957.7	1095.9	1202.5	1276.0
47.5°	1593.5	1595.0	1550.9	1425.2	1237.8	1139.3	1134.9	1198.8	1373.8	1449.5	1524.4
50°	1876.5	1875.0	1796.4	1718.5	1572.2	1455.3	1448.0	1484.0	1652.3	1680.3	1796.4
52.5°	2198.5	2197.0	2078.6	2041.9	1980.1	1792.0	1811.8	1781.0	1902.2	1952.2	2116.9
55°	2351.3	2338.1	2288.1	2334.4	2407.9	2219.0	2216.1	2098.5	2193.3	2235.9	2389.6
57.5°	2335.9	2341.0	2388.8	2542.4	2783.5	2625.5	2629.9	2411.6	2466.7	2493.2	2605.7
60°	2248.4	2252.1	2363.1	2618.9	2971.0	2943.8	2928.3	2704.1	2668.1	2657.1	2710.8
62.5°	1998.5	2000.0	2180.1	2508.6	2969.5	3127.5	3112.8	2910.0	2797.5	2726.9	2629.2
64°	1726.6	1754.5	1975.0	2346.2	2889.4	3159.9	3151.8	2959.9	2809.3	2679.9	2479.2
65°	1503.1	1545.0	1811.8	2202.1	2799.0	3148.8	3139.3	2951.1	2793.1	2591.7	2324.1
67.5°	1025.4	1047.4	1287.0	1733.2	2454.2	2993.7	2990.8	2837.9	2617.4	2238.9	1823.6
70°	604.9	621.1	798.2	1209.8	1886.1	2571.8	2610.8	2555.7	2172.7	1608.2	1161.3
72.5°	188.2	197.7	352.1	671.8	1236.3	2003.7	2054.4	2014.7	1581.8	1004.8	643.9
75°	70.6	73.5	116.1	291.8	615.2	1281.1	1296.6	1342.9	963.6	530.7	281.5
77.5°	39.0	39.7	57.3	109.5	270.5	629.2	643.9	638.0	512.3	250.6	89.7
80°	19.1	19.8	27.9	48.5	105.1	177.9	211.0	278.6	180.8	123.5	28.7
82.5°	6.6	5.9	12.5	22.1	35.3	47.8	53.7	77.2	75.7	67.6	10.3
85°	0.0	0.0	0.7	0.7	0.7	1.5	1.5	9.6	19.1	22.1	2.9
87.5°	0.0	0.0	0.0	0.7	0.7	0.7	0.7	0.7	0.7	1.5	1.5
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°	341.8	341.8	341.8	341.8	341.8	341.8	341.8	341.8	341.8	341.8	341.8
2.5°	341.8	340.3	335.2	330.0	326.3	321.9	321.2	318.3	317.5	317.5	317.5
5°	345.5	341.1	331.5	323.4	316.1	309.4	306.5	303.6	301.4	300.6	300.6
7.5°	353.5	346.9	331.5	319.7	308.7	300.6	296.2	293.3	291.1	291.1	291.1
10°	365.3	355.0	335.9	319.7	306.5	296.2	289.6	285.2	282.2	281.5	282.2
12.5°	380.0	366.8	343.3	323.4	308.0	294.7	280.8	255.1	238.1	228.6	227.1
15°	394.0	378.5	351.3	328.6	310.2	280.8	230.1	190.4	163.9	155.8	154.4
17.5°	409.4	393.2	362.4	335.9	302.1	226.4	163.9	130.8	125.7	127.2	127.2
20°	428.5	409.4	374.1	343.3	260.2	161.0	119.8	115.4	116.9	119.8	119.8
22.5°	450.6	430.0	390.3	338.8	198.5	117.6	109.5	110.3	111.7	114.7	114.7
25°	479.2	457.9	407.9	305.8	138.2	102.9	103.6	104.4	106.6	109.5	110.3
27.5°	521.9	496.1	429.3	256.5	104.4	95.6	96.3	98.5	100.7	104.4	104.4
30°	567.4	535.8	448.4	197.7	91.1	87.5	88.2	90.4	94.1	97.0	98.5
32.5°	587.3	559.4	452.0	135.2	84.5	80.9	79.4	81.6	84.5	87.5	88.2
35°	598.3	586.5	434.4	97.8	79.4	75.0	72.0	71.3	72.0	74.2	74.2
37.5°	652.7	644.6	399.1	83.8	74.2	69.8	65.4	61.7	60.3	59.5	60.3
40°	757.1	739.4	352.8	77.2	69.8	64.7	58.8	52.9	47.8	45.6	45.6
42.5°	987.1	898.2	286.7	72.8	65.4	59.5	50.7	42.6	36.8	35.3	35.3
45°	1234.8	1095.2	215.4	69.1	61.0	53.7	42.6	33.8	28.7	27.2	27.2
47.5°	1473.0	1240.7	150.7	64.7	55.9	47.0	35.3	27.2	23.5	22.8	22.8
50°	1722.9	1367.1	105.1	59.5	50.7	40.4	28.7	22.1	19.8	19.8	19.8
52.5°	1966.2	1460.5	77.2	54.4	44.1	33.8	24.3	19.8	18.4	18.4	18.4
55°	2149.9	1496.5	58.8	47.8	37.5	28.7	22.1	19.1	17.6	16.9	16.9
57.5°	2272.7	1466.4	47.8	39.7	31.6	25.0	19.8	17.6	16.2	15.4	15.4
60°	2269.7	1366.4	38.2	32.3	25.7	21.3	18.4	16.2	14.7	14.0	14.0
62.5°	2136.7	1204.0	30.1	25.7	21.3	18.4	16.2	14.7	13.2	12.5	11.8
64°	2006.6	1103.3	25.7	22.1	19.1	16.9	14.7	13.2	11.8	10.3	10.3
65°	1865.5	1007.7	23.5	19.8	16.9	15.4	14.0	12.5	10.3	8.8	8.8
67.5°	1418.6	746.0	19.1	15.4	13.2	12.5	11.0	9.6	7.4	5.9	5.9
70°	921.0	482.9	16.2	12.5	11.0	11.0	10.3	8.1	5.9	5.1	4.4
72.5°	471.9	240.4	13.2	10.3	9.6	9.6	8.8	6.6	5.1	4.4	3.7
75°	199.9	97.8	11.0	8.8	8.1	7.4	6.6	5.9	4.4	3.7	3.7
77.5°	69.8	36.8	10.3	8.8	6.6	5.9	5.9	5.9	5.9	5.1	4.4
80°	23.5	14.0	6.6	6.6	7.4	8.1	8.1	7.4	8.1	6.6	5.1
82.5°	9.6	5.1	2.2	2.9	5.1	5.9	6.6	6.6	6.6	5.1	4.4
85°	2.2	1.5	1.5	2.2	2.2	2.9	2.9	3.7	3.7	2.9	2.9
87.5°	1.5	1.5	1.5	1.5	1.5	1.5	2.2	1.5	2.2	2.2	2.2
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)