

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: P401574

Luminaire Tested: **ENT-SA1D-827-U-T4W**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401574
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-17)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1D-827-U-T4W
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 2700K, 800mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4150 lumens
Efficiency: N/A
Efficacy: 96.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Semi-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

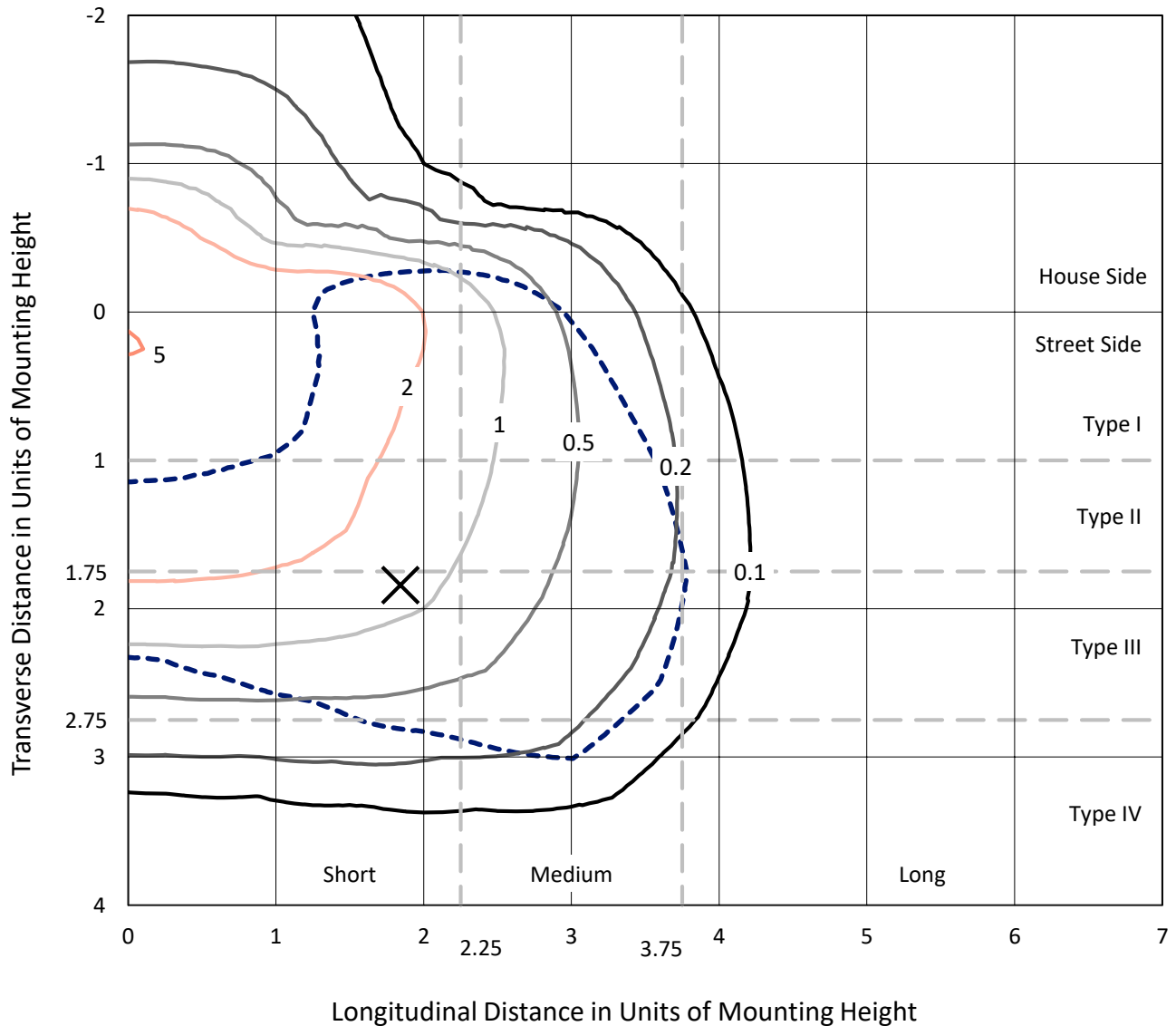


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

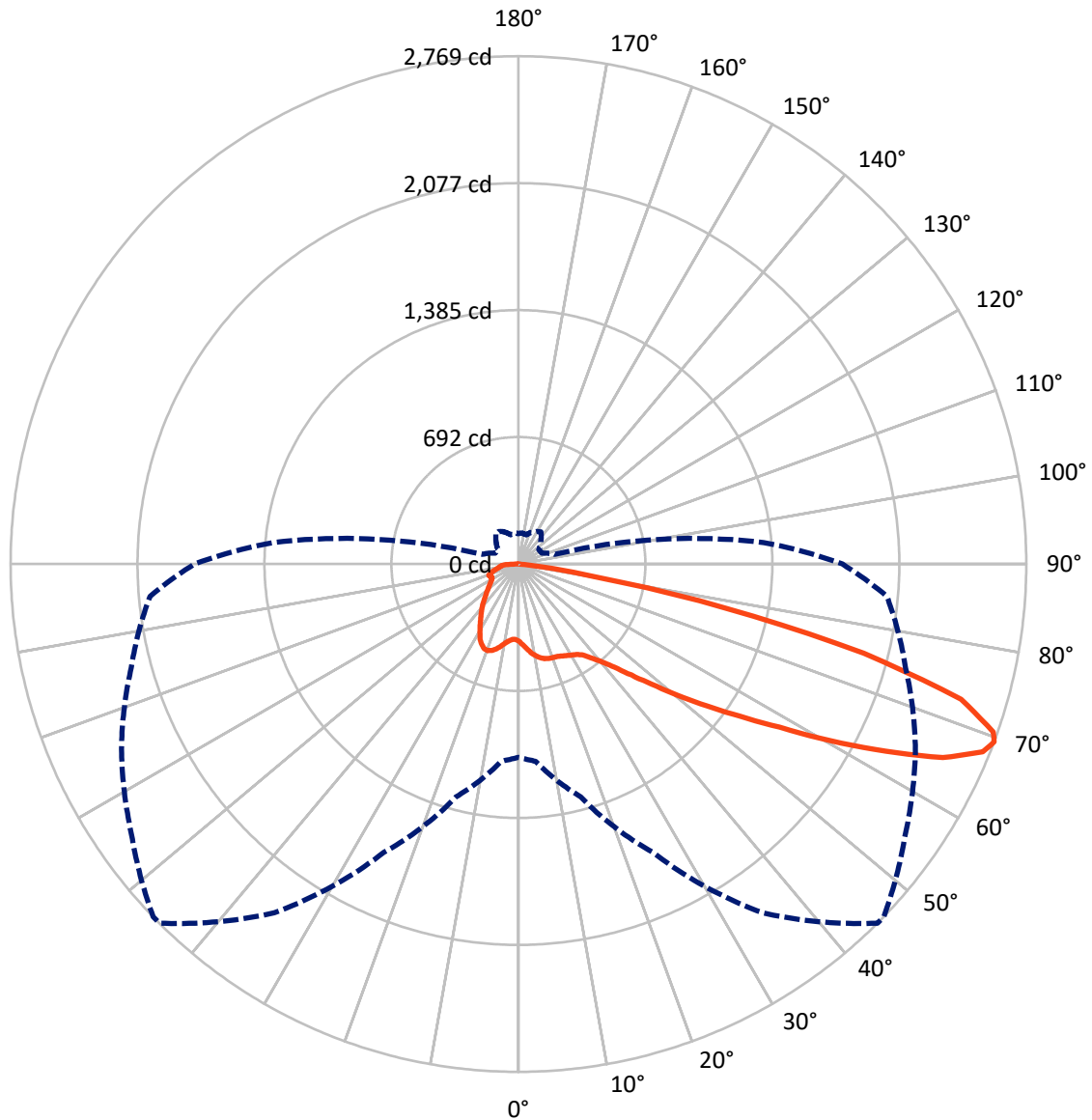


Based on 10 foot mounting height. Maximum calculated value = 5.2 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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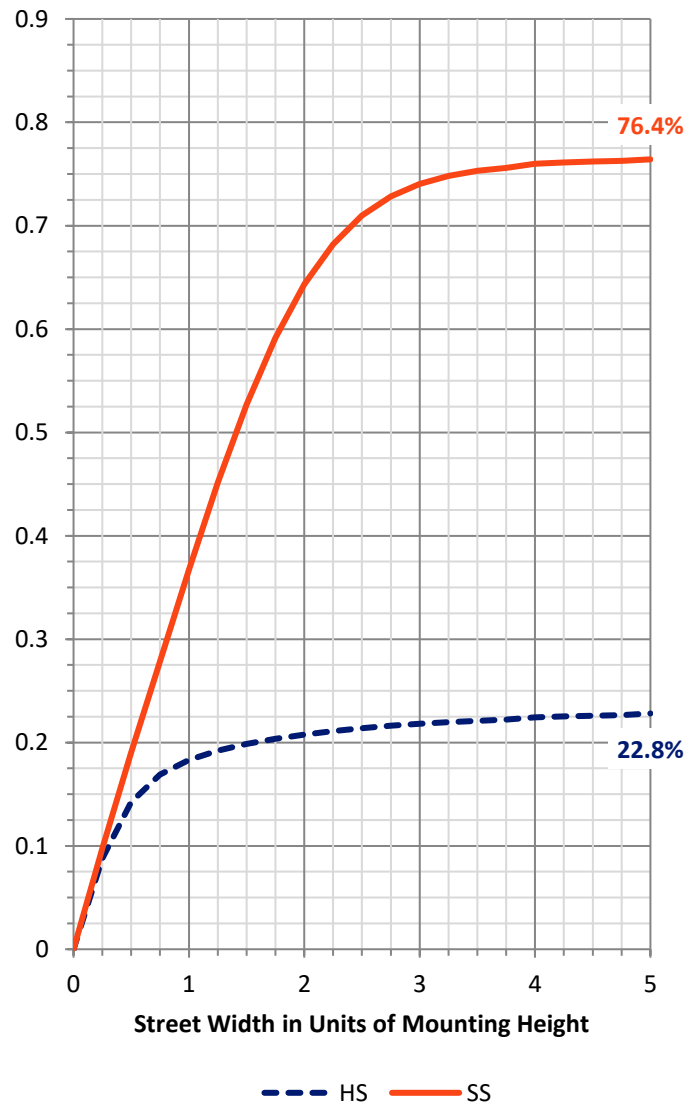
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	977.1	0.0	977.1
	% Fixture	23.5	0.0	23.5
Street Side	Lumens	3172.9	0.0	3172.9
	% Fixture	76.5	0.0	76.5
Total	Lumens	4150.0	0.0	4150.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.9	1.0
10°-20°	142.2	3.4
20°-30°	240.3	5.8
30°-40°	347.7	8.4
40°-50°	525.1	12.7
50°-60°	885.3	21.3
60°-70°	1218.0	29.3
70°-80°	674.9	16.3
80°-90°	73.5	1.8
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°	4150.0	100.0
0°-180°	4150.0	100.0



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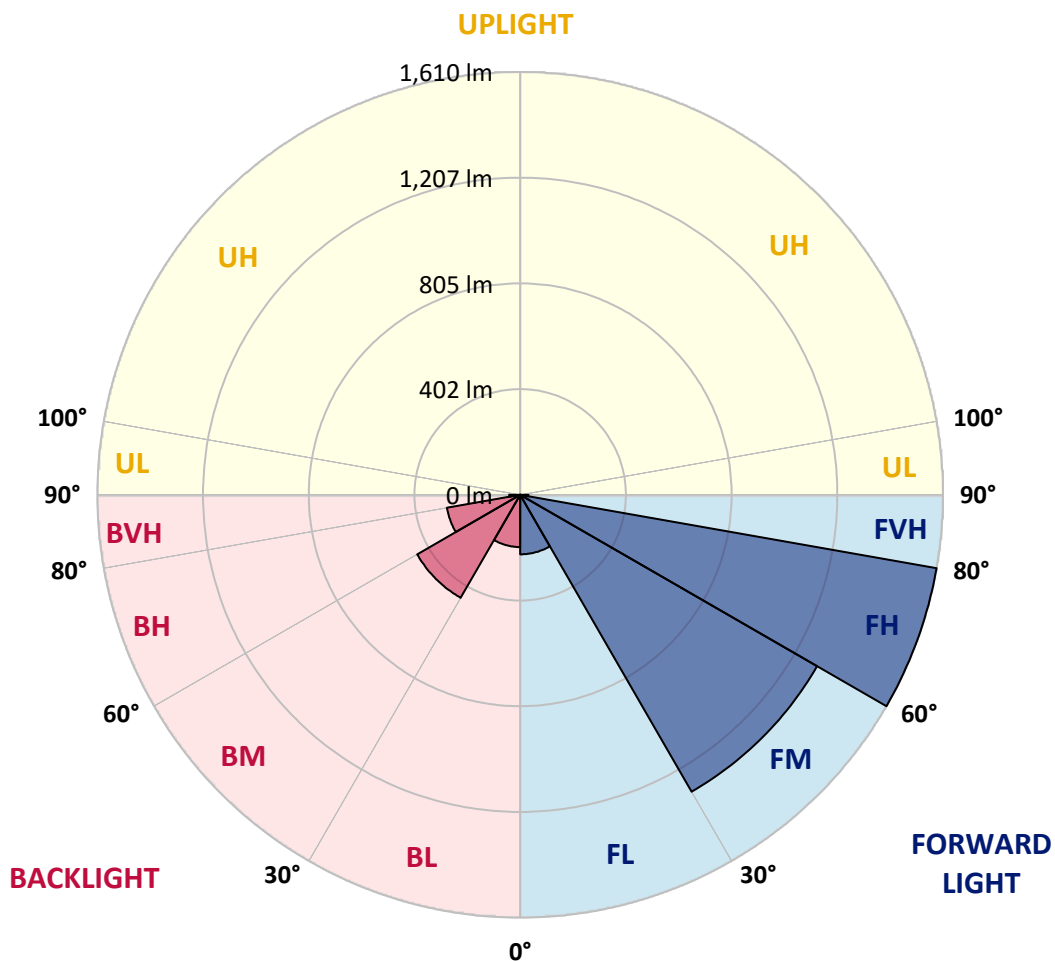
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	226.5	5.5			
FM	(30°-60°)	1305.2	31.5			
FH	(60°-80°)	1609.7	38.8			G1/1800
FVH	(80°-90°)	31.5	0.8			G1/100
BL	(0°-30°)	198.9	4.8	B1/500		
BM	(30°-60°)	452.9	10.9	B1/1000		
BH	(60°-80°)	283.2	6.8	B1/500		G1/500
BVH	(80°-90°)	42.0	1.0			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	421.2	421.2	421.2	421.2	421.2	421.2	421.2	421.2	421.2	421.2	421.2
2.5°	447.8	447.2	447.8	445.4	443.1	439.5	438.3	434.2	431.3	427.1	423.6
5°	480.8	482.6	482.0	479.1	469.6	462.5	462.5	453.7	444.2	435.4	427.1
7.5°	516.8	516.8	513.3	507.4	497.9	487.3	486.1	474.3	460.8	448.4	435.4
10°	542.8	543.9	538.6	530.4	518.6	507.4	506.2	492.6	479.6	463.7	447.8
12.5°	561.1	561.1	556.3	548.7	534.5	523.9	522.7	510.3	496.8	480.2	461.9
15°	570.5	569.3	565.2	556.9	544.5	535.7	533.9	523.3	512.1	495.6	476.1
17.5°	568.7	568.7	565.2	556.9	548.1	541.0	539.8	532.1	523.9	508.0	488.5
20°	561.1	560.5	559.3	552.8	546.9	543.9	542.8	539.2	533.9	520.3	502.1
22.5°	554.0	553.4	551.6	547.5	545.1	546.9	546.9	546.3	545.7	535.1	517.4
25°	558.1	557.5	554.0	548.1	547.5	555.7	556.3	558.1	559.3	550.4	532.1
27.5°	587.0	585.2	575.2	559.9	554.6	565.2	566.4	571.7	570.5	561.1	545.1
30°	643.7	644.2	621.8	588.8	571.1	575.8	576.4	582.3	580.5	572.9	559.9
32.5°	729.2	729.2	692.6	642.5	597.6	588.2	586.4	591.7	598.8	588.8	575.8
35°	837.7	834.8	790.6	713.3	643.1	609.4	608.3	605.9	618.3	608.8	590.0
37.5°	946.9	936.3	893.2	808.3	706.8	650.7	646.0	638.9	646.0	626.0	609.4
40°	1034.8	1033.0	997.6	911.5	782.3	700.9	697.3	666.1	670.8	654.9	648.4
42.5°	1131.6	1132.7	1109.1	1022.4	872.6	768.7	759.3	710.9	724.5	718.6	715.6
45°	1237.7	1236.6	1218.9	1128.0	982.9	863.1	851.3	791.7	819.5	815.9	832.4
47.5°	1319.2	1325.7	1315.6	1251.3	1113.9	977.6	968.7	896.2	938.0	966.4	997.6
50°	1430.1	1429.5	1402.3	1375.8	1266.1	1123.9	1115.0	1034.2	1094.4	1135.7	1192.9
52.5°	1567.5	1562.8	1506.8	1497.3	1451.3	1283.8	1276.1	1191.7	1277.9	1313.9	1430.1
55°	1653.7	1653.1	1624.2	1640.7	1641.9	1461.9	1452.5	1377.6	1474.9	1516.2	1692.0
57.5°	1725.6	1726.2	1750.4	1808.2	1847.2	1678.4	1674.9	1583.5	1682.0	1739.8	1947.5
60°	1781.1	1792.9	1860.7	1992.9	2057.8	1954.6	1939.2	1842.5	1908.5	1931.5	2142.8
62.5°	1758.7	1774.0	1907.4	2102.0	2269.0	2247.2	2241.9	2102.0	2101.5	2089.7	2288.5
65°	1581.7	1614.7	1824.8	2097.9	2408.2	2544.5	2536.8	2346.9	2280.8	2221.8	2332.1
67.5°	1294.4	1301.5	1554.6	1937.4	2407.1	2731.5	2723.3	2525.0	2392.3	2247.8	2204.1
69°	1053.7	1079.6	1313.9	1734.5	2322.1	2769.3	2769.3	2574.6	2388.2	2185.8	2016.5
70°	911.5	912.7	1138.6	1572.8	2206.5	2746.9	2752.2	2574.6	2354.5	2105.0	1850.1
72.5°	427.1	453.7	596.5	1026.5	1782.3	2525.0	2538.0	2404.7	2159.3	1813.6	1388.2
75°	128.0	132.7	198.8	486.7	1021.2	1945.1	1974.0	2000.6	1758.7	1335.1	854.9
77.5°	76.1	75.5	96.2	165.2	472.6	1153.4	1166.4	1279.6	1141.0	742.2	388.2
80°	37.2	38.3	51.3	80.2	177.0	418.9	460.8	598.2	505.6	290.3	142.2
82.5°	12.4	13.6	21.2	32.4	74.9	135.1	149.3	187.6	161.7	105.6	60.8
85°	0.0	0.0	0.6	1.2	4.1	10.0	10.0	22.4	33.6	37.2	20.1
87.5°	0.0	0.0	0.6	0.6	1.2	1.2	1.2	1.2	1.2	1.2	1.8
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°	421.2	421.2	421.2	421.2	421.2	421.2	421.2	421.2	421.2	421.2	421.2
2.5°	421.8	420.6	418.3	415.9	414.7	411.8	412.4	411.2	410.6	410.6	411.2
5°	423.0	421.2	417.7	415.3	413.0	411.8	414.7	415.9	417.1	417.1	417.7
7.5°	430.1	426.5	422.4	419.5	420.1	421.8	426.5	430.1	431.9	433.0	434.2
10°	441.9	437.8	431.9	431.3	432.4	437.2	443.7	449.0	453.7	456.6	456.6
12.5°	454.3	449.0	444.2	445.4	450.7	457.8	464.3	470.2	474.3	477.3	477.9
15°	467.8	462.5	457.8	460.8	469.6	477.9	483.8	486.1	487.9	490.9	491.4
17.5°	480.2	475.5	471.4	479.1	486.7	493.2	495.0	493.8	491.4	493.2	494.4
20°	493.2	489.1	486.7	495.0	500.3	500.9	496.2	490.9	485.0	485.0	485.5
22.5°	509.1	503.8	502.6	506.8	505.0	497.9	486.1	477.9	469.6	468.4	470.2
25°	524.5	519.2	518.6	515.6	500.3	482.0	466.1	456.6	450.1	450.7	454.3
27.5°	539.8	536.3	536.9	520.9	486.7	459.0	437.8	430.1	431.9	433.0	436.6
30°	555.2	555.2	557.5	520.9	467.8	426.5	406.5	405.9	410.6	414.2	418.3
32.5°	572.9	578.2	574.0	514.4	442.5	393.5	377.6	378.8	384.1	390.0	393.5
35°	590.0	602.4	590.6	499.7	407.7	363.4	350.4	348.7	352.8	358.1	359.9
37.5°	617.1	637.2	604.7	476.7	371.7	336.9	323.9	319.2	315.0	319.2	318.6
40°	664.3	688.5	615.3	438.3	336.9	312.1	298.5	289.7	279.6	270.8	270.8
42.5°	739.8	755.7	621.2	391.7	302.1	287.3	273.7	260.8	245.4	229.5	229.5
45°	863.1	866.7	623.6	342.2	270.2	262.5	248.4	236.0	215.9	200.0	196.5
47.5°	1027.7	1012.4	629.5	294.4	242.5	240.7	228.9	214.7	192.9	178.2	176.4
50°	1249.0	1182.9	655.5	256.0	220.1	221.8	213.0	196.5	175.8	165.2	162.8
52.5°	1497.9	1398.2	675.5	225.4	200.6	205.9	199.4	183.5	165.8	156.9	155.2
55°	1769.9	1605.3	670.8	204.7	185.8	191.7	189.4	175.8	159.9	152.2	150.4
57.5°	1991.7	1751.0	629.5	186.4	171.1	179.3	181.7	171.1	156.3	149.3	147.5
60°	2158.1	1830.7	544.5	171.1	159.3	169.3	175.8	168.1	155.8	151.6	149.9
62.5°	2233.6	1823.6	434.2	159.3	150.4	162.2	176.4	172.9	164.6	167.5	168.1
65°	2191.1	1734.5	325.7	150.4	145.1	163.4	186.4	186.4	174.0	179.3	179.9
67.5°	1973.4	1501.5	237.2	144.0	139.8	169.3	205.3	193.5	169.9	174.0	172.3
69°	1766.4	1343.3	203.5	140.4	135.7	172.3	213.6	194.7	165.2	169.9	165.2
70°	1614.1	1200.6	182.9	137.5	133.9	172.3	215.9	193.5	162.8	166.4	161.1
72.5°	1148.7	833.6	150.4	131.6	127.4	159.3	211.8	187.0	156.3	152.2	142.2
75°	667.8	460.8	128.0	125.1	112.7	139.8	201.2	179.9	149.9	142.2	135.1
77.5°	280.2	205.9	109.1	113.9	99.7	124.5	188.2	172.9	142.2	131.6	128.0
80°	113.9	102.7	90.9	98.5	86.7	109.7	173.4	161.1	131.0	120.4	115.0
82.5°	59.6	56.6	69.6	79.6	72.0	100.9	163.4	152.8	121.5	110.9	104.4
85°	17.7	23.6	39.5	54.3	54.9	90.9	158.7	141.6	105.6	91.4	90.3
87.5°	1.2	4.7	13.6	28.3	36.0	69.6	128.6	116.2	85.5	72.0	72.6
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)