

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: P401400

Luminaire Tested: **ENT-SA1C-830-U-SL4**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401400  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENT-SA1C-830-U-SL4  
Description: ENTRI LED LUMINAIRE  
(1) 80 CRI, 3000K, 615mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3399 lumens  
Efficiency: N/A  
Efficacy: 102.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B1 - U0 - G1

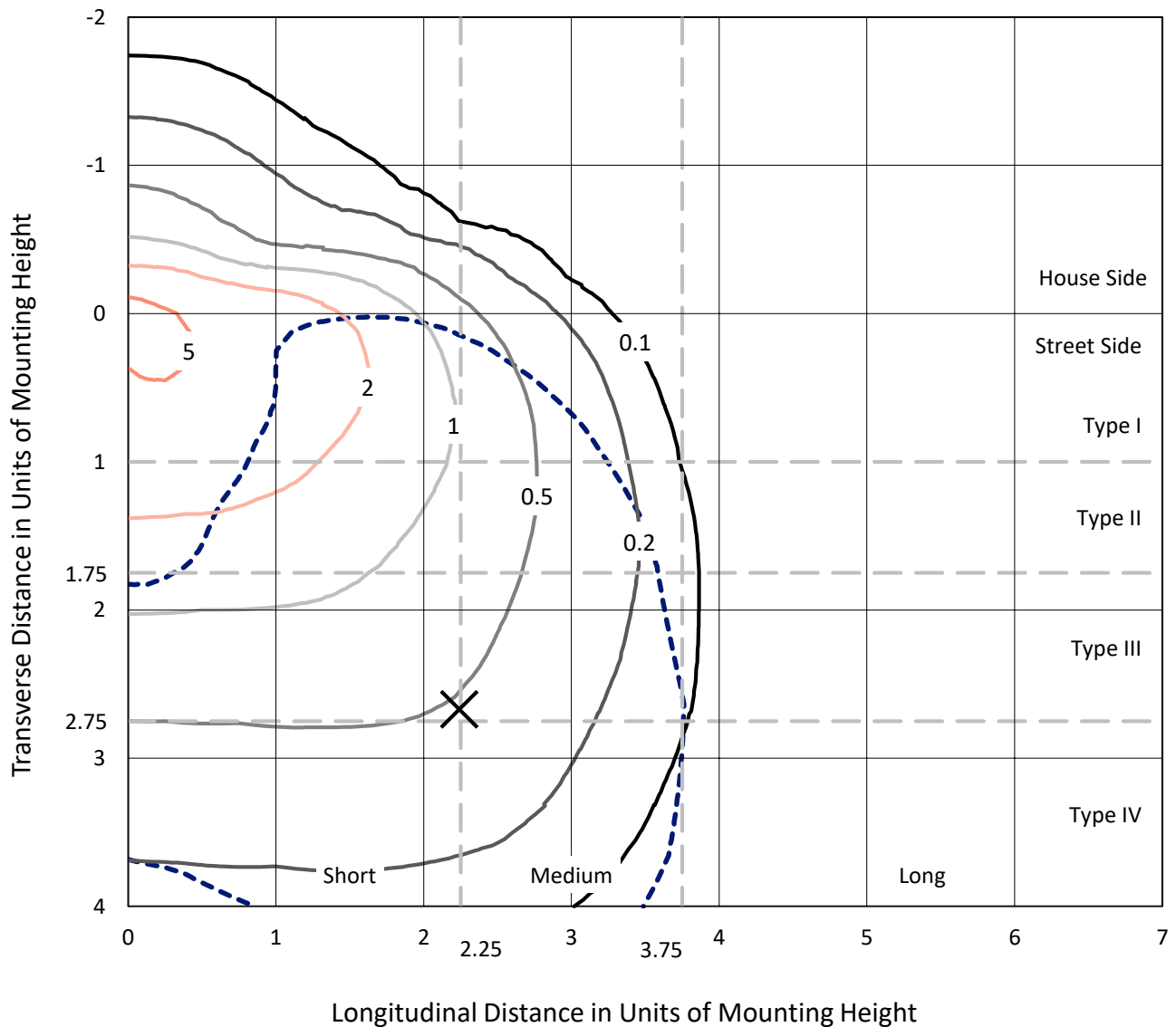
Input Watts (W): 33.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

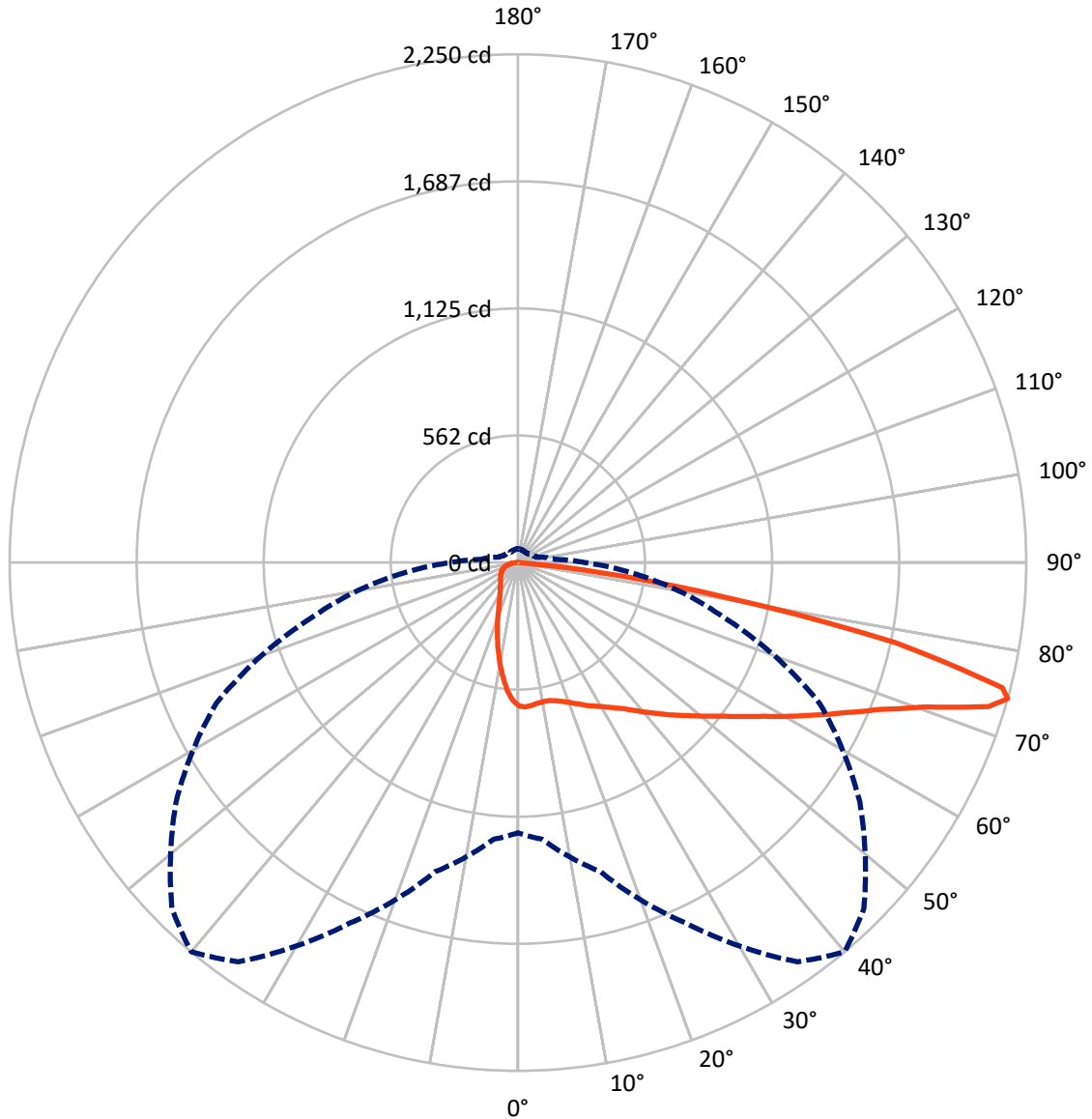
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.3 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral    - - - Horizontal Cone Through 74-Deg Vertical

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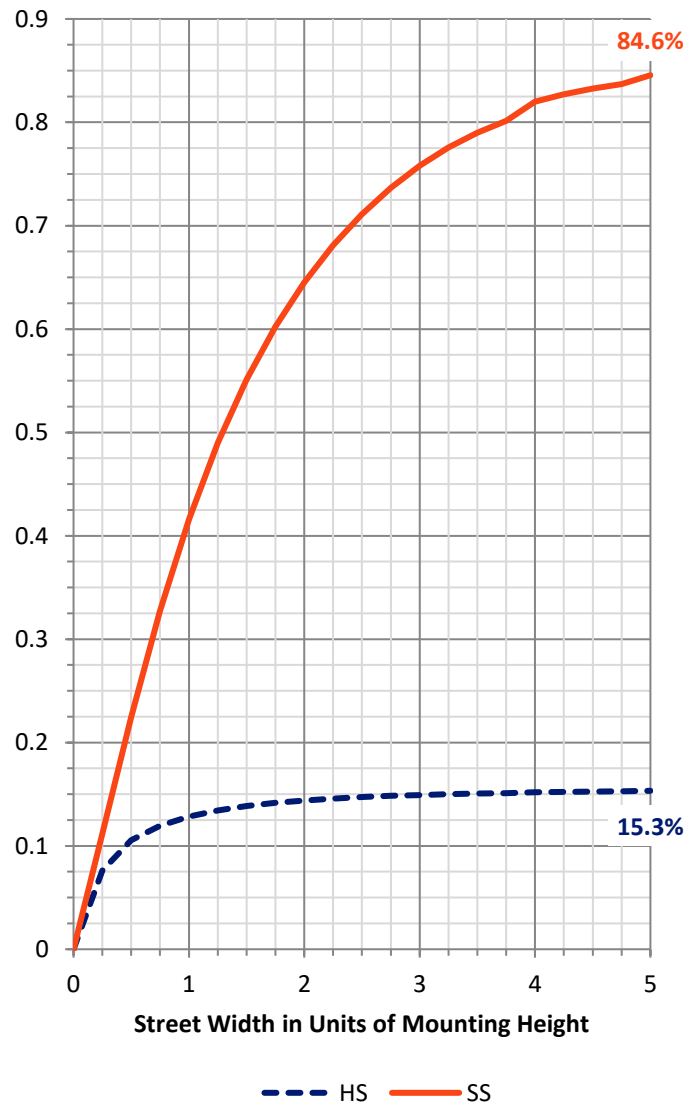
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	530.0	0.0	530.0
	% Fixture	15.6	0.0	15.6
<b>Street Side</b>	Lumens	2869.0	0.0	2869.0
	% Fixture	84.4	0.0	84.4
<b>Total</b>	Lumens	3399.0	0.0	3399.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.0	1.6
10°-20°	144.2	4.2
20°-30°	221.2	6.5
30°-40°	319.5	9.4
40°-50°	459.7	13.5
50°-60°	634.7	18.7
60°-70°	800.2	23.5
70°-80°	693.9	20.4
80°-90°	69.5	2.0
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°	3399.0	100.0
0°-180°	3399.0	100.0



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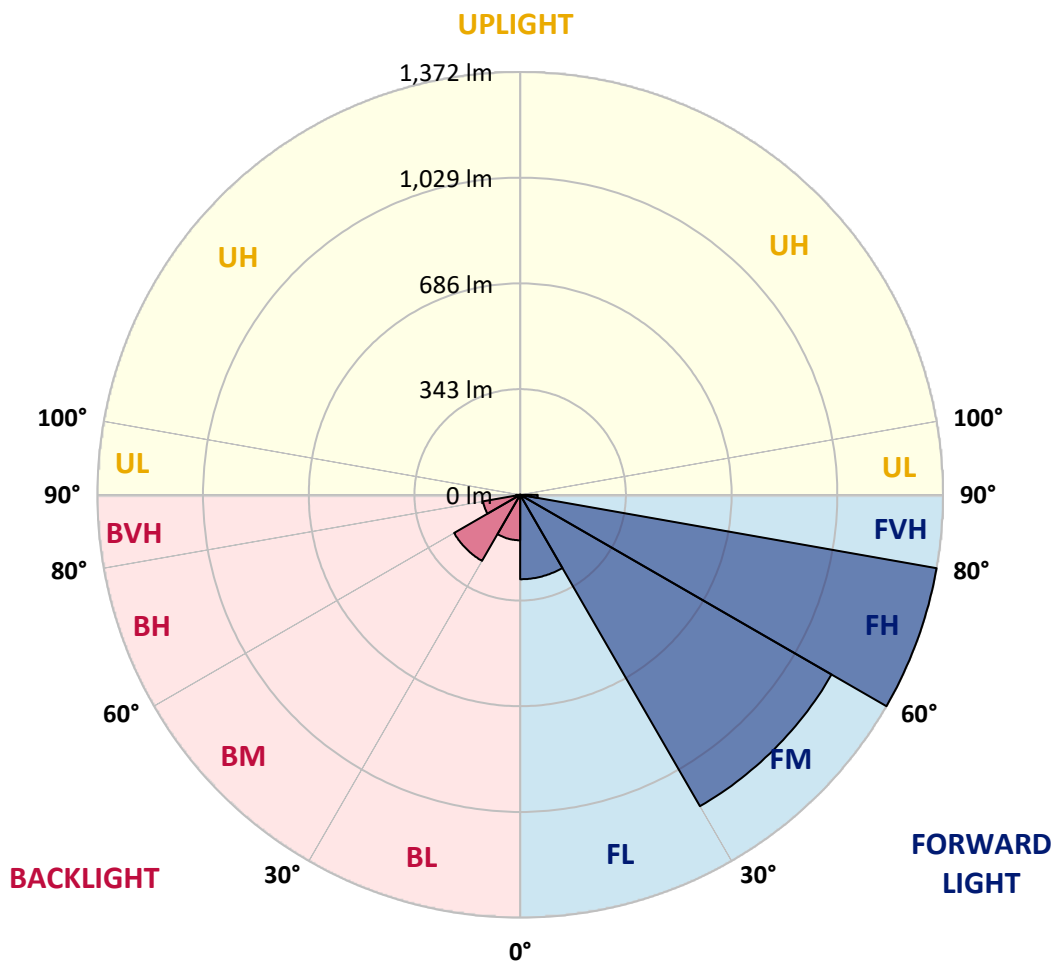
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	274.0	8.1			
FM	(30°-60°)	1166.4	34.3			
FH	(60°-80°)	1371.8	40.4			G1/1800
FVH	(80°-90°)	56.8	1.7			G1/100
BL	(0°-30°)	147.5	4.3	B1/500		
BM	(30°-60°)	247.5	7.3	B1/1000		
BH	(60°-80°)	122.3	3.6	B1/500		G1/500
BVH	(80°-90°)	12.7	0.4			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°	40°	45°	55°	65°	75°	85°
0°	634.5	634.5	634.5	634.5	634.5	634.5	634.5	634.5	634.5	634.5	634.5
2.5°	642.6	642.1	643.6	642.6	641.1	640.1	639.6	636.5	635.5	632.4	628.4
5°	640.1	640.1	640.1	639.1	636.0	635.0	634.0	629.4	626.3	621.2	613.6
7.5°	631.4	632.9	632.4	631.9	629.4	628.4	626.8	621.2	617.1	609.5	599.8
10°	623.3	623.3	623.8	625.8	624.8	625.3	624.8	618.7	613.1	603.4	591.2
12.5°	611.5	613.6	616.6	622.2	624.8	626.8	626.8	622.2	616.1	604.4	590.1
15°	604.4	606.9	614.6	624.8	630.9	634.5	635.5	629.9	622.2	610.5	594.7
17.5°	601.3	604.4	618.7	632.9	643.6	646.7	647.2	641.1	632.9	618.7	600.3
20°	604.4	608.0	626.8	646.2	658.9	661.5	662.5	653.8	643.6	629.9	605.9
22.5°	616.1	621.2	642.1	663.0	676.3	679.8	678.8	666.6	656.4	641.6	613.1
25°	641.6	644.7	663.5	685.9	696.1	700.2	697.7	683.9	670.6	655.9	623.3
27.5°	671.2	675.2	695.1	711.9	718.6	719.6	717.0	702.8	688.0	675.7	639.1
30°	706.8	710.4	726.7	739.4	740.0	740.5	738.9	722.6	710.4	700.7	662.0
32.5°	744.5	745.1	761.9	768.0	763.9	765.4	763.9	746.1	737.4	734.4	692.1
35°	779.2	779.7	797.0	799.1	792.4	793.0	796.0	775.1	775.1	782.3	736.9
37.5°	812.3	813.9	829.1	827.1	824.6	829.1	833.2	815.4	825.6	846.0	791.4
40°	837.3	840.9	861.2	860.2	865.8	870.4	874.0	864.8	881.1	920.9	858.7
42.5°	853.6	860.7	889.8	896.9	906.6	914.8	920.9	920.4	948.9	1003.9	930.0
45°	870.4	877.6	916.3	933.6	949.9	962.7	974.4	980.5	1025.8	1091.6	1013.1
47.5°	890.8	896.9	940.2	974.4	995.3	1012.6	1033.5	1046.7	1104.3	1180.8	1090.1
50°	921.9	926.0	964.7	1017.7	1044.2	1068.1	1094.1	1121.1	1188.9	1272.0	1157.3
52.5°	962.1	964.7	993.2	1061.5	1103.8	1129.3	1168.0	1203.7	1275.0	1354.5	1212.4
55°	1008.0	1006.0	1027.9	1114.0	1163.4	1201.7	1249.6	1285.8	1365.8	1426.4	1256.2
57.5°	1053.9	1052.3	1069.7	1164.5	1238.9	1283.7	1333.1	1371.4	1448.8	1493.7	1287.8
60°	1097.7	1092.1	1116.6	1223.6	1330.1	1381.6	1425.9	1461.1	1527.3	1542.1	1304.6
62.5°	1136.4	1136.4	1172.1	1296.5	1439.1	1485.5	1520.7	1544.1	1602.2	1577.8	1298.0
65°	1172.1	1176.7	1227.7	1378.0	1552.3	1599.7	1630.2	1639.4	1676.6	1579.3	1241.9
67.5°	1212.4	1219.5	1291.4	1473.3	1682.7	1733.2	1759.7	1756.6	1729.6	1555.8	1121.7
70°	1251.6	1263.3	1370.3	1596.1	1843.8	1912.1	1941.1	1881.0	1757.1	1425.9	931.6
72.5°	1280.1	1300.0	1435.1	1718.9	2074.6	2179.6	2167.9	1915.1	1628.2	1175.2	704.8
74°	1196.6	1229.7	1417.2	1761.2	2157.7	2249.9	2165.9	1847.3	1472.8	946.4	499.4
75°	1099.2	1131.3	1327.0	1744.4	2173.5	2214.8	2060.9	1728.1	1320.9	733.3	326.2
77.5°	813.9	838.8	1019.2	1375.4	1718.9	1706.7	1534.4	1171.1	650.8	221.2	137.6
80°	359.3	378.1	503.0	692.1	931.1	927.5	863.8	538.2	210.0	115.7	84.1
82.5°	108.5	108.0	144.7	201.8	353.7	360.3	306.3	185.5	100.4	47.9	40.8
85°	0.5	0.5	0.5	0.5	1.5	13.2	11.2	35.7	18.3	8.7	14.8
87.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	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



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	634.5	634.5	634.5	634.5	634.5	634.5	634.5	634.5	634.5	634.5	634.5
2.5°	625.8	625.3	623.8	620.2	617.7	610.0	612.6	607.5	606.9	605.9	605.4
5°	610.0	608.0	601.9	594.7	586.6	573.8	569.7	562.1	557.5	556.0	557.0
7.5°	593.7	589.1	577.4	562.1	545.8	526.9	513.2	502.5	494.8	492.3	488.7
10°	583.5	575.9	556.0	530.5	504.0	477.5	454.6	438.8	427.1	417.9	417.9
12.5°	579.9	569.7	540.7	503.5	465.3	427.6	394.4	373.5	353.7	344.0	342.5
15°	582.0	567.7	528.0	479.0	428.1	379.2	338.4	308.3	289.5	277.7	281.8
17.5°	584.0	566.2	514.7	453.0	391.9	335.3	287.9	253.8	230.9	224.7	222.2
20°	586.6	563.1	497.9	425.0	354.7	293.0	243.1	208.4	191.1	183.5	183.5
22.5°	590.1	559.0	480.6	393.9	316.5	251.7	205.4	179.4	165.6	161.0	161.0
25°	595.2	556.5	462.7	362.8	280.3	219.1	180.4	160.0	152.9	149.8	149.3
27.5°	604.9	557.0	445.4	331.2	244.6	191.6	162.6	149.3	143.7	142.2	141.7
30°	619.7	562.1	427.1	297.6	213.0	170.7	150.3	141.2	137.6	136.6	136.6
32.5°	640.1	571.3	411.8	267.5	189.6	153.9	140.1	134.0	132.0	131.0	131.5
35°	671.7	587.1	393.4	240.0	167.7	142.2	132.0	127.4	125.9	125.9	126.4
37.5°	712.9	611.5	375.6	214.5	152.9	132.0	124.3	121.8	120.3	121.3	121.8
40°	764.9	640.6	358.8	191.6	140.7	123.8	117.7	115.7	115.2	116.2	117.2
42.5°	821.0	675.7	343.5	172.8	131.0	117.2	112.1	111.1	110.6	111.1	112.6
45°	886.2	716.0	330.7	158.5	123.8	111.6	107.0	106.0	105.5	106.5	107.5
47.5°	946.4	752.2	320.5	148.8	117.7	107.5	102.9	101.4	101.4	101.4	102.4
50°	995.3	780.7	314.4	142.2	112.6	102.9	98.9	97.3	96.8	96.3	96.8
52.5°	1037.6	802.1	312.4	138.1	108.5	98.9	94.8	93.8	92.7	91.7	92.2
55°	1065.6	812.8	308.3	134.5	105.0	94.3	90.7	89.7	88.7	87.1	87.1
57.5°	1081.9	811.8	299.1	132.5	102.9	90.2	86.6	86.6	85.6	83.1	83.6
60°	1083.4	794.0	276.7	130.0	101.4	86.1	82.0	83.1	83.1	81.0	81.0
62.5°	1057.4	747.1	233.4	123.3	99.4	83.1	78.5	81.0	82.0	80.0	80.0
65°	977.4	636.5	187.5	113.6	94.3	79.5	74.4	79.5	82.6	81.0	80.5
67.5°	824.0	504.0	154.9	102.9	88.7	74.9	70.3	77.0	81.0	81.0	80.5
70°	661.5	382.7	127.4	91.2	80.0	69.3	65.7	71.3	74.9	75.9	75.9
72.5°	455.6	233.9	103.5	78.5	70.3	62.7	59.6	63.2	65.2	67.3	66.8
74°	294.0	164.1	90.7	71.3	64.2	57.6	56.1	57.6	58.6	60.6	61.2
75°	196.7	134.0	84.6	66.2	60.6	54.0	53.0	54.5	55.5	57.1	57.1
77.5°	113.1	95.8	68.3	55.0	50.5	46.4	45.9	46.4	47.9	49.4	48.9
80°	78.5	72.9	54.0	42.8	39.7	37.7	38.2	38.7	41.3	41.8	41.3
82.5°	47.4	52.5	38.2	32.1	30.1	29.6	31.1	32.1	34.1	34.7	34.1
85°	18.9	25.0	18.9	17.8	19.9	21.9	24.5	26.0	27.0	27.0	27.0
87.5°	0.0	3.6	4.6	7.1	11.2	13.2	17.3	18.9	19.9	19.4	18.9
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)