

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: P401445

Luminaire Tested: **ENT-SA1D-727-U-T4FT-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401445
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-16)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1D-727-U-T4FT-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 2700K, 800mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV FORWARD
THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3344 lumens
Efficiency: N/A
Efficacy: 77.6 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

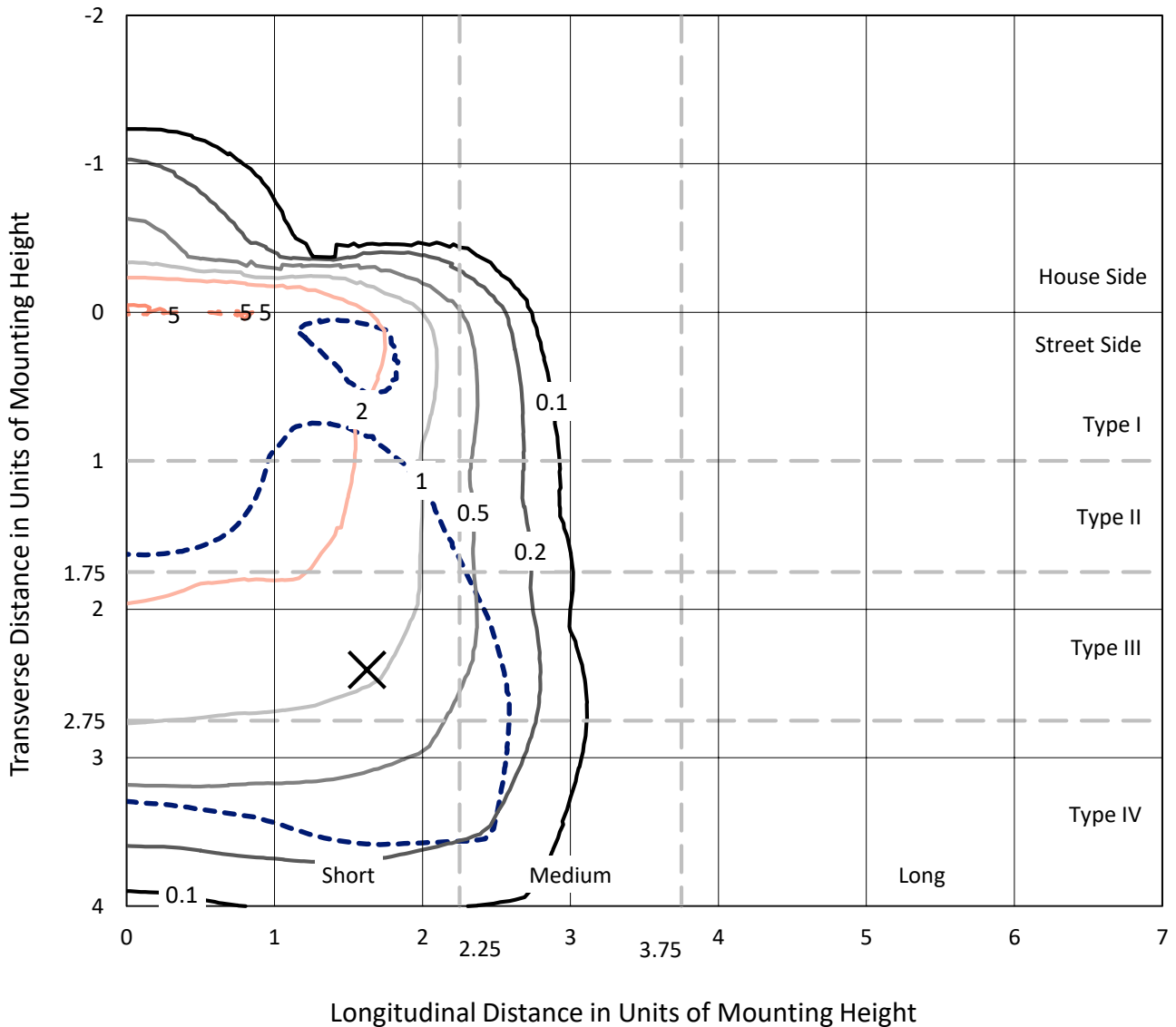
Input Watts (W): 43.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

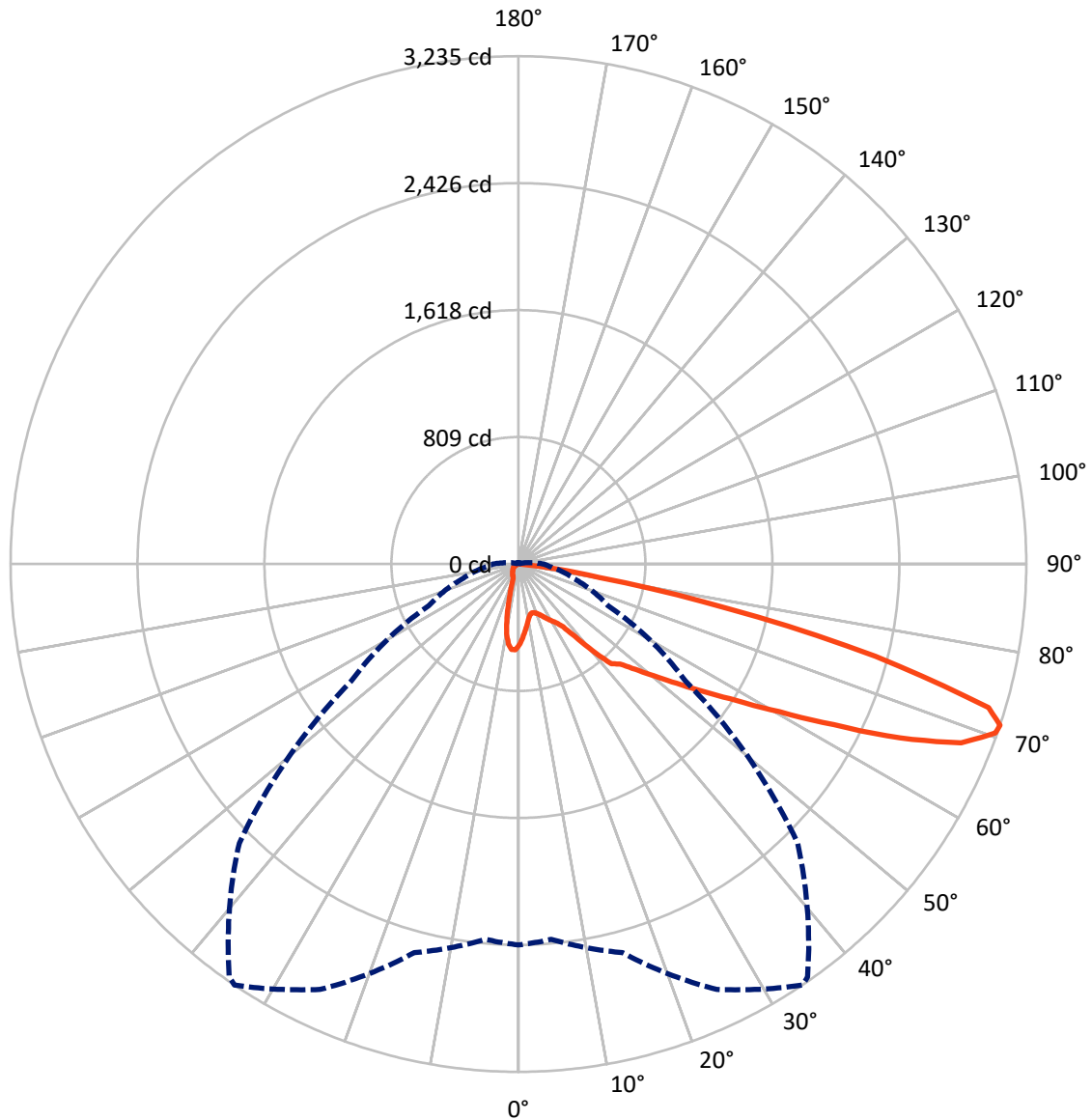
× Max cd
 - - - 1/2 Max cd



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 34-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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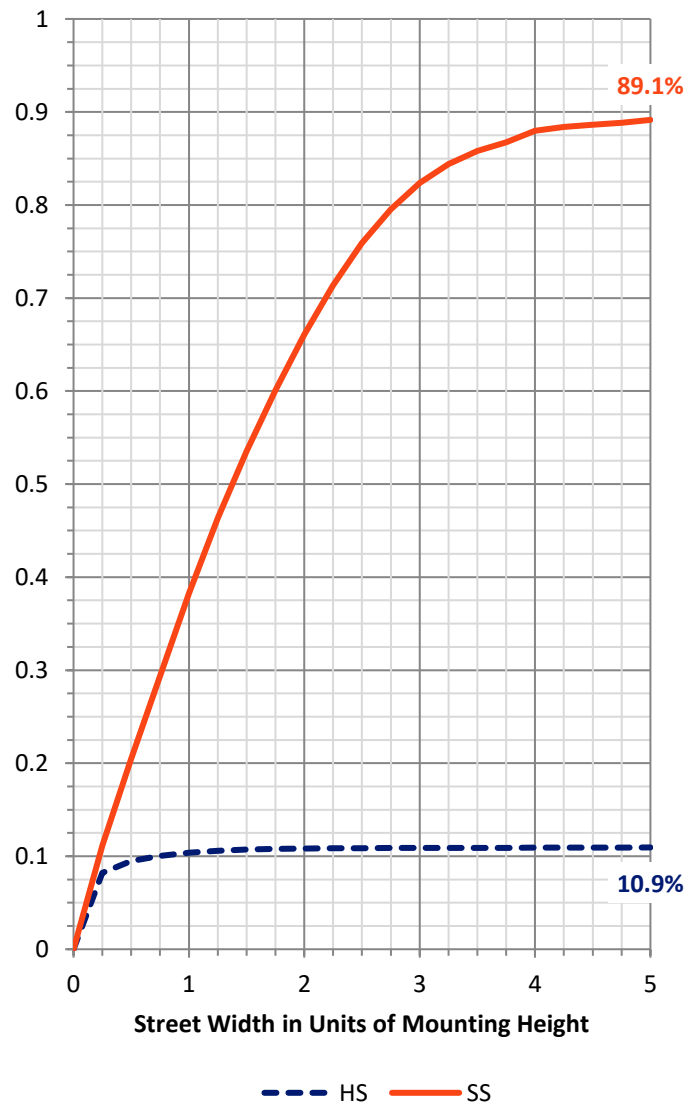
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	369.8	0.0	369.8
	% Fixture	11.1	0.0	11.1
Street Side	Lumens	2974.2	0.0	2974.2
	% Fixture	88.9	0.0	88.9
Total	Lumens	3344.0	0.0	3344.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.7	1.4
10°-20°	104.7	3.1
20°-30°	156.2	4.7
30°-40°	260.9	7.8
40°-50°	471.2	14.1
50°-60°	747.7	22.4
60°-70°	1004.8	30.0
70°-80°	533.1	15.9
80°-90°	19.7	0.6
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°	3344.0	100.0
0°-180°	3344.0	100.0

Coefficient of Utilization



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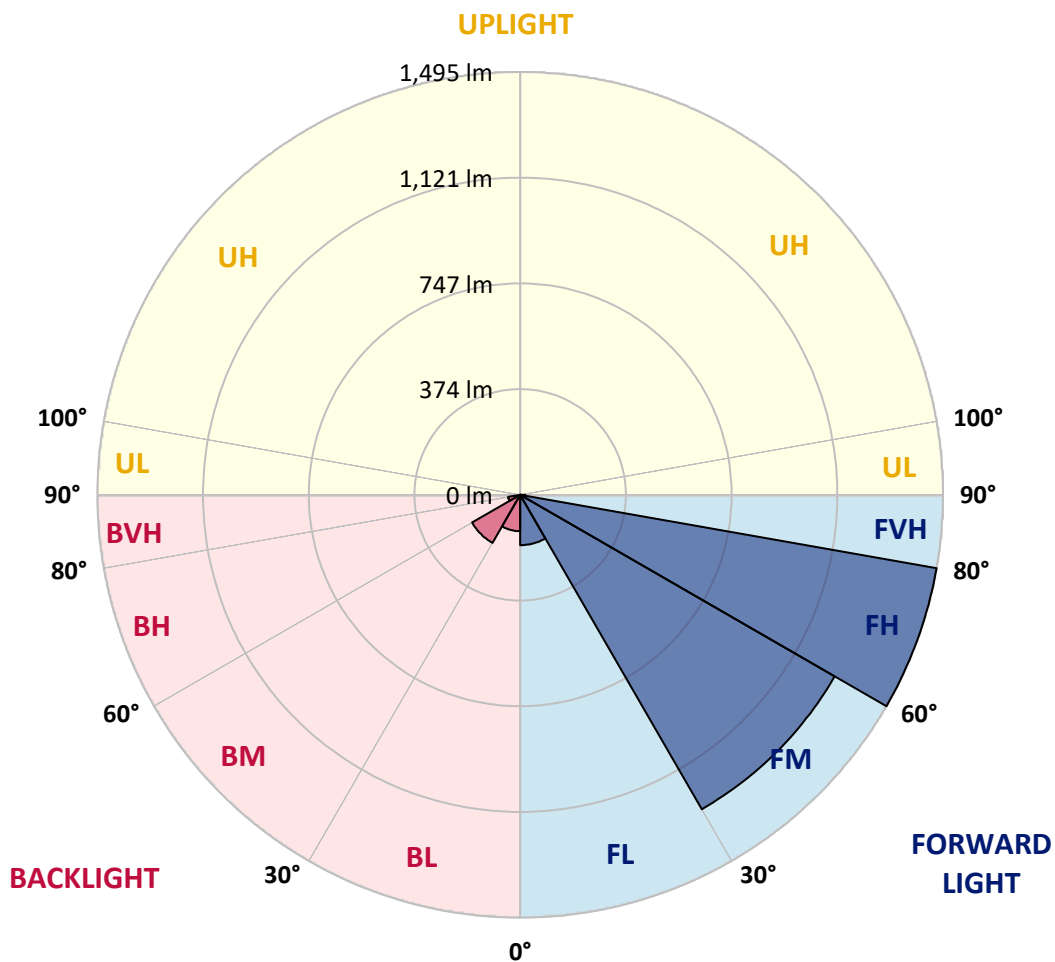
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	178.0	5.3			
FM	(30°-60°)	1283.7	38.4			
FH	(60°-80°)	1494.7	44.7			G1/1800
FVH	(80°-90°)	17.9	0.5			G1/100
BL	(0°-30°)	128.6	3.8	B1/500		
BM	(30°-60°)	196.2	5.9	B0/220		
BH	(60°-80°)	43.2	1.3	B0/110		G0/110
BVH	(80°-90°)	1.8	0.1			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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	518.1	518.1	518.1	518.1	518.1	518.1	518.1	518.1	518.1	518.1	518.1
2.5°	471.8	465.8	471.2	473.8	475.9	478.5	482.6	489.9	498.0	507.4	512.8
5°	411.4	414.8	416.8	424.2	431.6	432.9	445.6	460.4	479.2	498.0	514.1
7.5°	362.4	362.4	368.5	379.9	392.0	393.3	415.4	434.9	461.8	490.6	516.8
10°	323.5	324.8	329.5	340.9	356.4	359.7	384.6	411.4	445.0	482.6	519.5
12.5°	310.7	310.1	309.4	317.5	330.2	333.6	361.1	393.3	432.9	478.5	526.2
15°	318.8	316.8	312.1	313.4	321.5	324.8	349.0	381.2	425.5	477.9	537.6
17.5°	331.6	328.9	320.1	317.5	326.2	329.5	349.7	377.9	422.8	481.2	551.0
20°	347.0	344.3	330.9	327.5	336.3	338.9	359.7	383.9	424.2	487.9	569.1
22.5°	369.1	365.8	346.3	342.3	351.0	353.7	375.8	398.0	432.2	500.0	594.0
25°	396.0	392.0	367.1	361.8	372.5	375.2	397.3	418.1	445.6	516.1	625.5
27.5°	425.5	420.8	394.6	383.9	396.0	400.0	420.8	443.6	465.1	536.3	667.1
30°	452.4	447.0	421.5	409.4	421.5	423.5	448.3	473.8	496.7	570.5	728.2
32.5°	526.9	513.4	473.8	438.9	447.0	451.0	481.2	521.5	555.7	611.4	806.7
35°	638.3	627.5	579.2	518.8	490.6	492.0	530.9	581.9	597.3	659.1	904.1
37.5°	745.7	736.3	694.0	638.3	584.6	586.6	593.3	642.3	660.4	741.6	1022.8
40°	863.1	848.3	814.8	761.8	724.9	716.1	683.2	717.5	757.1	845.7	1152.4
42.5°	917.5	903.4	868.5	871.8	867.8	852.4	787.3	834.9	879.2	996.7	1295.3
45°	1007.4	979.9	908.1	913.4	908.1	909.4	925.5	994.7	1032.9	1156.4	1457.1
47.5°	1090.6	1059.1	983.9	978.6	1002.0	1014.1	1100.7	1184.6	1188.0	1295.3	1583.9
50°	1166.5	1143.7	1074.5	1075.2	1118.2	1131.6	1304.7	1381.2	1313.5	1402.1	1683.3
52.5°	1267.1	1234.9	1173.2	1195.3	1262.5	1274.5	1508.1	1553.7	1404.1	1498.7	1761.1
55°	1360.4	1343.0	1297.4	1330.2	1432.9	1464.5	1714.8	1686.6	1467.8	1584.6	1798.7
57.5°	1513.5	1496.7	1484.6	1501.4	1639.0	1678.6	1924.2	1780.6	1517.5	1641.7	1781.3
60°	1768.5	1751.7	1715.5	1730.9	1910.1	1930.3	2088.6	1875.9	1537.0	1657.8	1712.8
62.5°	2083.3	2062.5	2004.1	2075.2	2255.1	2254.4	2259.1	1926.2	1512.1	1610.1	1532.3
65°	2367.2	2338.3	2308.1	2453.1	2671.9	2641.7	2440.3	1932.3	1433.6	1379.9	1185.3
67.5°	2573.9	2562.5	2579.3	2805.4	3041.0	3010.8	2616.2	1849.0	1193.3	996.0	732.2
70°	2565.8	2542.4	2649.1	3010.1	3224.2	3199.4	2608.8	1519.5	796.0	527.5	306.7
71°	2426.9	2400.1	2562.5	2990.0	3235.0	3211.5	2514.8	1300.0	629.5	372.5	202.0
72.5°	1875.2	1956.4	2214.8	2774.6	3131.6	3101.4	2259.1	995.3	398.7	215.4	101.3
75°	793.3	837.6	1314.8	1980.6	2349.1	2333.6	1522.9	459.7	183.2	97.3	38.9
77.5°	204.0	201.3	402.7	849.7	1367.8	1392.0	702.0	157.7	95.3	69.1	22.1
80°	39.6	43.0	114.8	295.3	522.2	536.3	228.9	69.1	63.8	54.4	11.4
82.5°	4.0	4.7	20.1	91.3	175.2	169.1	50.3	26.2	38.9	36.9	5.4
85°	0.0	0.0	0.7	0.7	0.7	0.7	0.7	2.7	9.4	10.1	1.3
87.5°	0.0	0.0	0.7	0.7	0.0	0.0	0.0	0.0	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	518.1	518.1	518.1	518.1	518.1	518.1	518.1	518.1	518.1	518.1	518.1
2.5°	516.8	522.8	529.5	534.2	538.9	539.6	546.3	545.0	547.0	547.7	547.0
5°	522.8	530.9	543.6	550.4	553.0	548.3	547.0	539.6	536.9	533.6	530.2
7.5°	529.5	539.6	554.4	557.7	548.3	530.9	516.8	498.7	481.9	471.2	472.5
10°	536.9	549.7	561.8	553.0	528.9	494.6	455.0	414.8	379.2	365.8	370.5
12.5°	546.3	561.8	567.1	543.0	496.0	426.9	355.0	294.0	257.1	234.9	232.2
15°	560.4	575.9	569.8	526.9	443.6	335.6	246.3	184.6	149.0	137.6	131.5
17.5°	577.9	592.6	569.8	498.0	369.1	240.3	149.7	112.1	100.7	98.0	98.7
20°	599.3	613.4	567.1	454.4	284.6	147.7	100.0	92.6	92.6	92.6	91.9
22.5°	628.2	635.6	563.1	396.7	196.0	100.0	88.6	87.9	88.6	88.6	88.6
25°	663.1	661.8	555.7	327.5	123.5	85.2	84.6	84.6	85.2	85.9	85.9
27.5°	709.4	695.3	543.0	245.0	87.3	79.2	80.5	81.9	83.2	84.6	84.6
30°	773.8	739.6	522.2	165.8	73.8	73.2	75.8	79.9	81.9	83.2	83.2
32.5°	843.0	785.3	486.6	106.0	67.8	67.1	69.8	75.8	81.2	82.6	82.6
35°	930.2	834.3	433.6	76.5	63.8	62.4	65.1	70.5	78.5	82.6	82.6
37.5°	1022.2	886.6	356.4	64.4	59.7	58.4	60.4	64.4	73.8	81.2	81.9
40°	1120.2	932.9	267.8	59.7	55.7	55.0	55.7	59.7	67.1	77.2	79.2
42.5°	1218.8	971.8	187.3	55.0	52.4	51.0	52.4	55.0	61.7	70.5	71.8
45°	1327.6	1014.8	124.8	51.0	49.7	48.3	49.7	51.7	56.4	61.1	61.7
47.5°	1406.7	1030.2	85.9	46.3	45.6	46.3	47.0	48.3	51.0	51.7	51.0
50°	1459.1	1022.2	61.7	41.6	42.3	44.3	44.3	45.0	45.0	43.0	42.3
52.5°	1497.4	992.6	47.7	35.6	39.6	41.6	41.6	40.3	38.9	36.2	35.6
55°	1501.4	926.2	37.6	30.9	35.6	38.9	38.3	35.6	32.9	30.2	30.2
57.5°	1450.4	825.5	30.9	26.2	30.9	34.2	32.9	30.2	26.8	24.8	24.8
60°	1367.8	722.2	26.2	22.1	25.5	28.9	26.8	24.8	21.5	19.5	19.5
62.5°	1215.5	620.2	21.5	18.1	20.8	22.8	22.1	20.1	16.8	15.4	14.8
65°	931.6	471.8	16.1	14.1	16.1	18.8	17.5	15.4	13.4	11.4	10.7
67.5°	559.7	283.9	12.8	10.7	12.8	14.8	13.4	11.4	9.4	8.1	8.1
70°	236.9	121.5	10.1	8.1	9.4	11.4	10.7	9.4	7.4	6.7	6.7
71°	161.1	86.6	8.7	7.4	8.7	10.7	10.1	8.7	7.4	6.7	6.7
72.5°	82.6	44.3	7.4	6.0	8.1	9.4	9.4	8.1	6.7	6.7	6.7
75°	29.5	18.8	6.0	5.4	6.7	6.7	7.4	7.4	7.4	7.4	6.7
77.5°	16.8	11.4	5.4	5.4	5.4	6.0	7.4	8.1	8.7	8.7	8.1
80°	9.4	6.0	3.4	4.0	5.4	6.0	7.4	8.1	9.4	9.4	8.7
82.5°	4.7	2.0	0.7	2.0	3.4	5.4	6.0	6.7	8.1	7.4	7.4
85°	0.7	0.0	0.0	0.7	2.0	2.7	4.0	5.4	6.7	6.7	6.0
87.5°	0.0	0.0	0.0	0.0	0.7	1.3	2.0	3.4	4.7	5.4	4.7
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)