

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: P401560

Luminaire Tested: **ENT-SA1D-827-U-SL3**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401560
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-3)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1D-827-U-SL3
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 2700K, 800mA LIGHTSQUARE WITH 16 LEDS AND TYPE III SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4072 lumens
Efficiency: N/A
Efficacy: 94.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium - Non-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

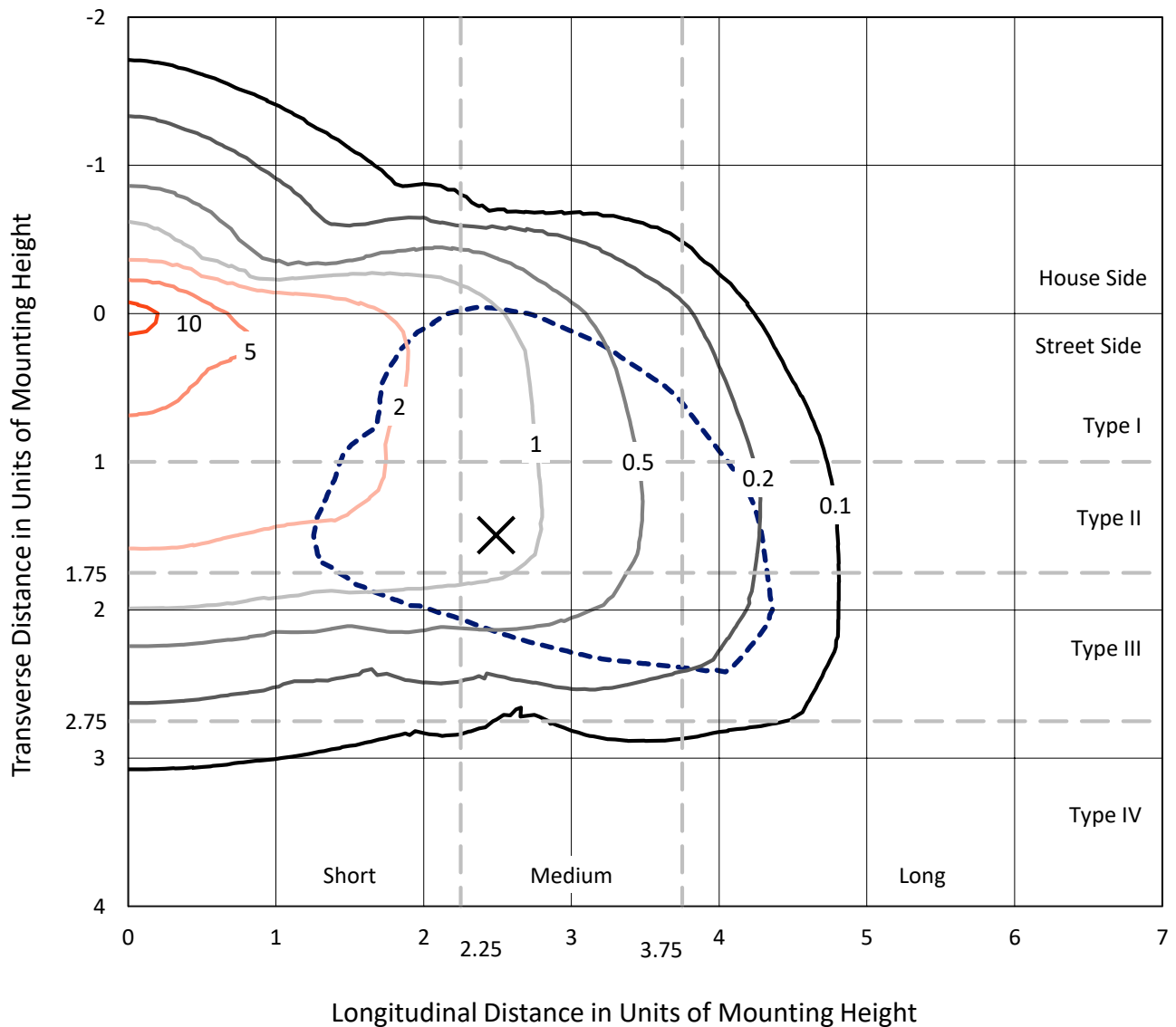


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Iso-Footcandle Lines of Horizontal Illumination

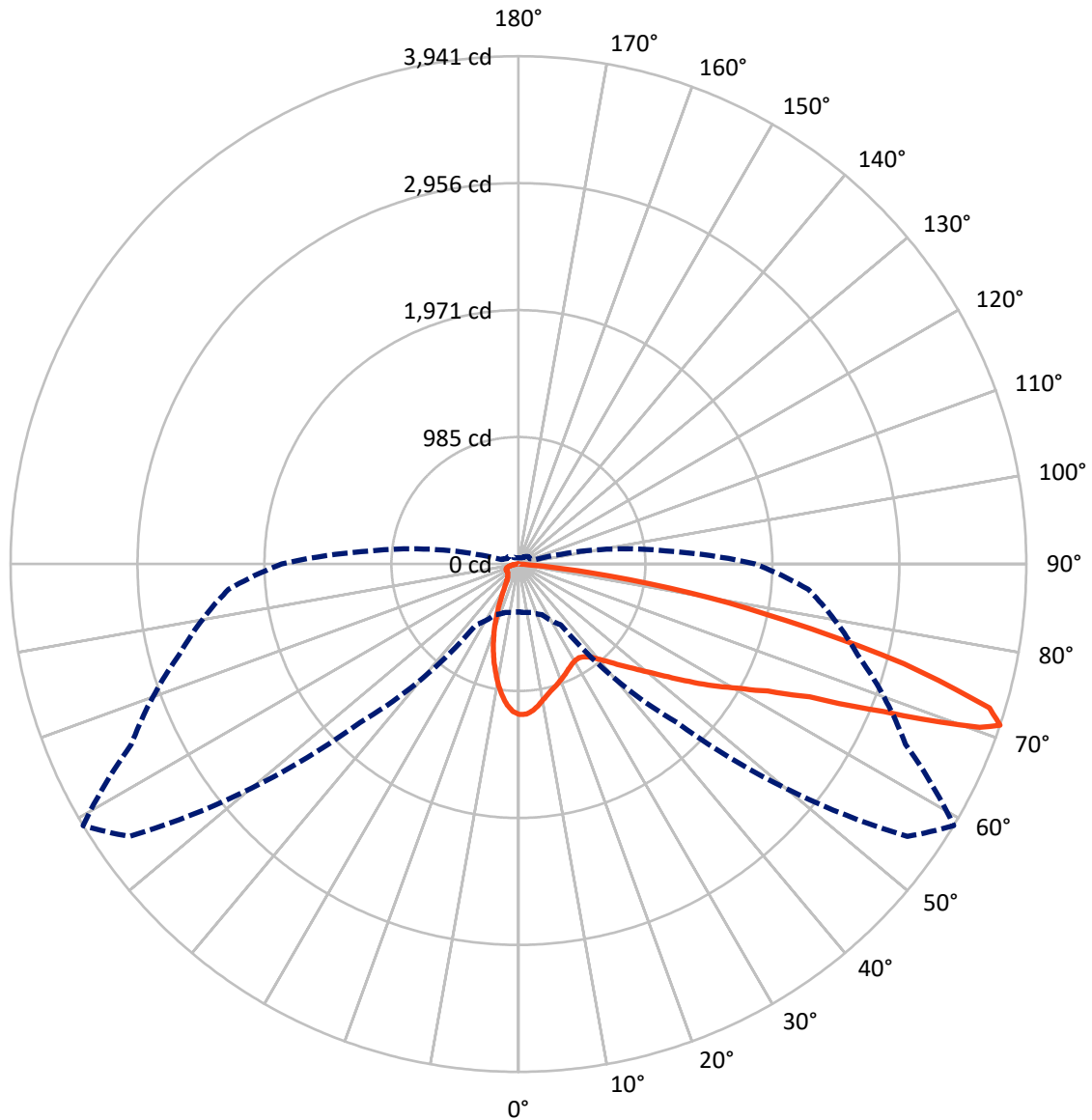
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11.7 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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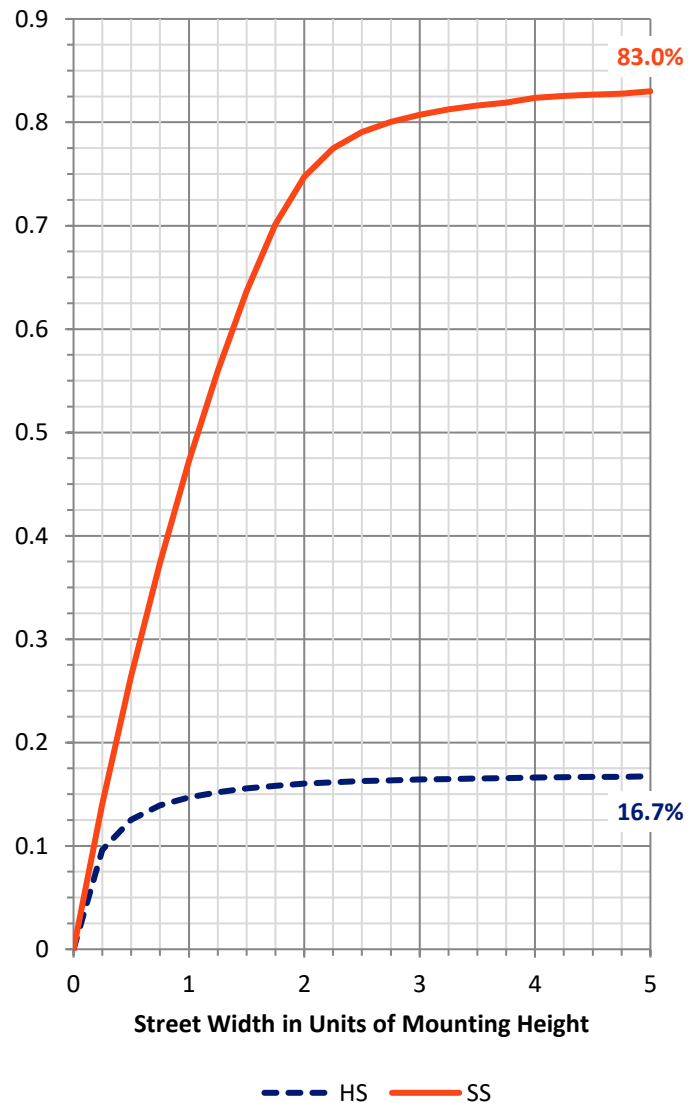
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	691.1	0.0	691.1
	% Fixture	17.0	0.0	17.0
Street Side	Lumens	3380.9	0.0	3380.9
	% Fixture	83.0	0.0	83.0
Total	Lumens	4072.0	0.0	4072.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.9	2.5
10°-20°	226.8	5.6
20°-30°	288.2	7.1
30°-40°	368.4	9.0
40°-50°	511.3	12.6
50°-60°	757.0	18.6
60°-70°	1023.2	25.1
70°-80°	725.6	17.8
80°-90°	70.5	1.7
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°	4072.0	100.0
0°-180°	4072.0	100.0



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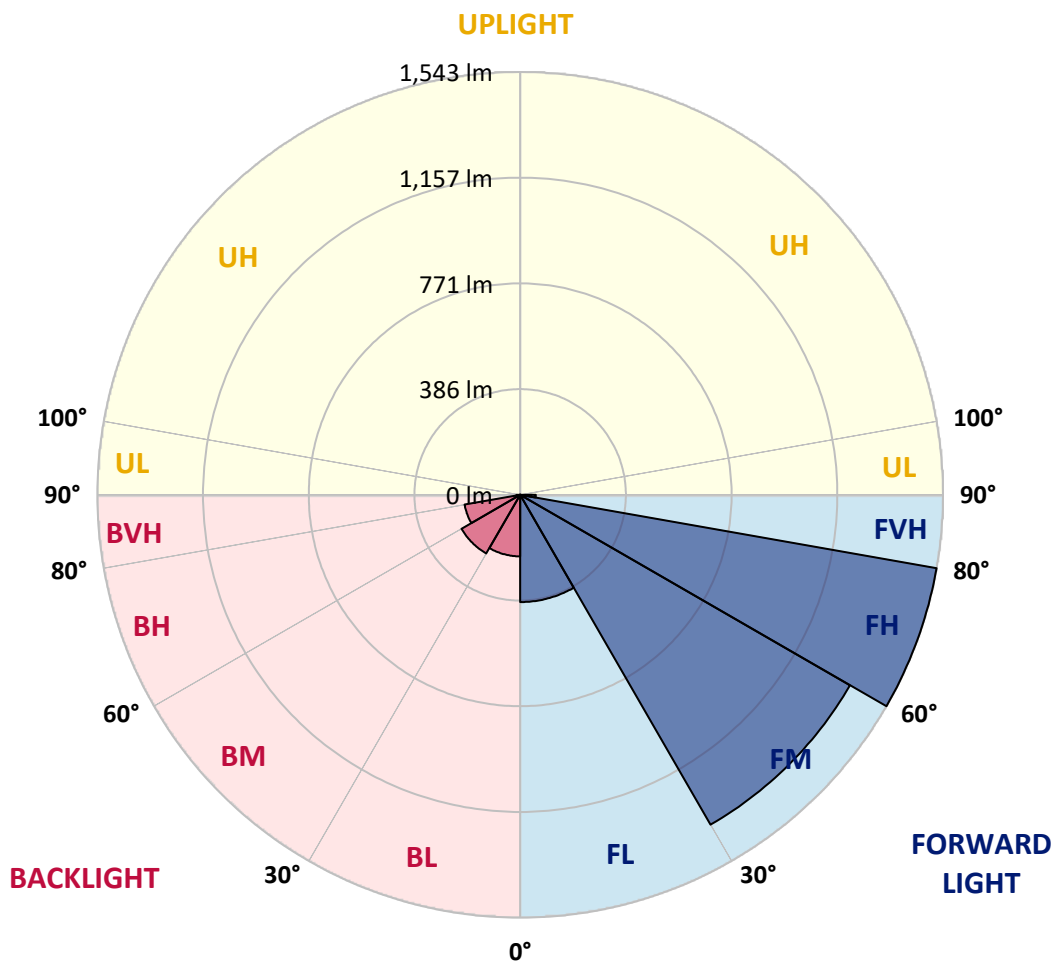
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	391.4	9.6			
FM	(30°-60°)	1389.6	34.1			
FH	(60°-80°)	1542.9	37.9			G1/1800
FVH	(80°-90°)	57.1	1.4			G1/100
BL	(0°-30°)	224.5	5.5	B1/500		
BM	(30°-60°)	247.2	6.1	B1/1000		
BH	(60°-80°)	206.0	5.1	B1/500		G1/500
BVH	(80°-90°)	13.4	0.3			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 III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	1168.2	1168.2	1168.2	1168.2	1168.2	1168.2	1168.2	1168.2	1168.2	1168.2	1168.2
2.5°	1158.2	1162.3	1164.1	1167.1	1167.1	1168.2	1167.1	1166.5	1168.8	1166.5	1160.0
5°	1106.9	1108.7	1114.0	1119.9	1125.8	1138.2	1141.7	1144.1	1149.4	1150.5	1144.1
7.5°	1037.3	1043.8	1050.8	1058.5	1070.9	1088.0	1102.8	1108.7	1118.7	1124.6	1115.1
10°	978.3	981.8	985.3	998.9	1018.4	1042.0	1057.3	1068.5	1084.5	1092.1	1083.3
12.5°	919.3	922.2	929.3	947.6	967.6	996.0	1023.7	1032.5	1051.4	1066.8	1059.7
15°	873.8	873.8	879.1	899.2	920.4	958.2	990.7	1004.2	1027.8	1049.7	1040.8
17.5°	833.7	835.5	839.0	852.0	881.5	921.0	962.3	979.4	1008.9	1037.3	1025.5
20°	811.3	810.1	812.5	819.0	842.6	884.4	934.0	954.1	990.7	1029.6	1010.7
22.5°	803.6	802.4	800.7	800.1	815.4	850.8	903.9	928.7	974.1	1025.5	997.1
25°	809.5	809.5	804.2	794.2	801.3	825.4	876.8	903.3	955.8	1022.5	984.7
27.5°	825.4	825.4	817.8	804.8	801.8	812.5	853.2	881.5	940.5	1024.3	974.7
30°	847.3	846.7	839.0	827.8	819.0	815.4	842.0	867.9	929.9	1032.0	970.0
32.5°	872.1	870.9	867.3	859.7	849.0	833.7	843.1	866.2	927.5	1045.5	970.6
35°	901.6	899.8	901.6	897.4	887.4	870.9	865.0	883.3	939.3	1070.9	980.6
37.5°	927.5	926.3	935.2	937.5	935.2	913.4	905.7	917.5	967.0	1111.0	1001.3
40°	949.3	950.5	966.5	983.6	987.1	968.2	962.9	972.9	1011.9	1160.0	1038.4
42.5°	973.5	977.1	1000.7	1031.4	1043.2	1030.8	1033.7	1040.8	1068.5	1226.7	1092.1
45°	997.1	1004.8	1037.3	1076.8	1106.9	1106.9	1116.9	1124.0	1141.7	1310.4	1170.6
47.5°	1038.4	1043.8	1079.2	1126.9	1173.0	1187.7	1215.4	1213.1	1226.7	1402.5	1262.7
50°	1092.1	1101.0	1137.0	1186.5	1245.0	1286.8	1318.7	1323.4	1328.7	1496.9	1371.8
52.5°	1166.5	1177.1	1206.6	1252.6	1321.7	1390.1	1457.4	1454.4	1447.3	1599.6	1496.9
55°	1241.4	1252.6	1280.4	1317.5	1398.9	1504.0	1613.7	1609.6	1577.1	1704.6	1612.5
57.5°	1317.5	1327.0	1355.9	1388.3	1484.5	1638.5	1778.9	1781.9	1715.2	1821.4	1727.0
60°	1349.4	1363.5	1434.9	1497.5	1617.8	1787.8	1947.7	1955.3	1858.6	1939.4	1853.3
62.5°	1205.4	1222.5	1340.5	1509.3	1800.8	2075.7	2167.2	2171.9	2031.5	2069.8	1991.3
65°	892.1	891.5	1013.7	1266.2	1764.2	2462.2	2558.3	2484.0	2246.2	2242.7	2173.6
67.5°	511.0	526.3	565.2	755.2	1344.1	2533.6	3254.6	3060.5	2626.8	2511.7	2416.7
70°	411.8	408.3	420.1	470.8	732.8	2083.4	3708.3	3796.8	3167.2	2731.2	2361.9
71°	371.1	376.4	388.2	434.3	578.2	1738.2	3685.9	3941.4	3314.8	2725.3	2257.4
72.5°	319.2	320.4	347.5	401.8	475.0	1226.1	3408.0	3822.2	3469.3	2648.0	2104.0
75°	217.1	220.1	262.6	323.3	433.7	582.4	2438.6	3091.7	3157.8	2474.6	1737.6
77.5°	124.5	126.9	157.5	236.6	369.4	410.7	1496.9	2136.5	2270.4	1809.6	931.6
80°	64.3	67.3	87.3	149.3	282.0	332.2	858.5	1343.5	1291.6	625.4	215.9
82.5°	17.1	19.5	25.4	53.7	136.3	216.5	380.6	555.8	397.1	129.8	78.5
85°	0.0	0.0	0.0	0.6	1.2	30.1	80.2	99.7	55.5	25.4	21.2
87.5°	0.0	0.0	0.0	0.0	0.6	1.2	1.2	1.2	1.2	1.8	2.4
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°	1168.2	1168.2	1168.2	1168.2	1168.2	1168.2	1168.2	1168.2	1168.2	1168.2	1168.2
2.5°	1158.8	1158.8	1155.3	1150.0	1144.1	1130.5	1132.8	1122.2	1123.4	1122.2	1122.2
5°	1138.7	1135.2	1126.4	1109.8	1091.5	1067.4	1063.8	1044.3	1033.1	1029.6	1033.7
7.5°	1111.0	1101.0	1078.6	1049.7	1014.8	983.6	954.7	928.7	909.2	901.0	897.4
10°	1074.4	1062.0	1025.5	974.7	926.9	878.0	832.5	803.0	764.1	752.3	748.7
12.5°	1044.3	1023.1	968.2	897.4	823.1	758.2	696.8	634.9	597.7	571.1	567.0
15°	1018.4	988.3	909.8	818.4	725.7	636.0	552.9	469.7	417.1	394.7	378.8
17.5°	995.4	956.4	851.4	732.8	618.3	499.8	398.3	318.6	285.6	268.5	269.1
20°	971.8	922.2	790.6	647.3	512.1	380.6	281.4	244.3	227.7	224.2	222.4
22.5°	949.3	883.3	726.3	562.9	403.6	279.7	226.6	208.3	204.1	204.1	204.1
25°	924.0	843.7	661.4	476.7	305.6	220.7	194.7	188.2	189.4	191.8	192.3
27.5°	903.3	809.5	597.1	377.0	237.2	187.6	174.1	172.9	177.6	182.9	182.9
30°	885.0	778.2	527.5	294.4	188.8	164.6	159.9	161.7	166.4	171.1	172.9
32.5°	872.6	749.9	464.9	228.9	161.1	148.7	147.5	149.9	154.6	156.9	158.7
35°	867.3	729.3	397.7	184.7	143.4	136.9	136.3	138.1	140.4	141.0	140.4
37.5°	873.2	715.1	328.6	156.4	132.2	128.6	128.0	128.0	128.0	128.6	128.0
40°	890.3	709.8	266.7	138.1	125.1	122.1	120.4	118.6	117.4	117.4	116.8
42.5°	926.3	718.1	214.2	127.4	119.8	116.2	112.7	110.3	108.6	108.0	108.0
45°	984.2	741.1	178.2	120.4	115.1	109.7	105.6	103.3	101.5	102.1	101.5
47.5°	1063.8	779.4	157.5	115.6	110.3	103.3	99.1	96.8	96.2	97.9	98.5
50°	1154.1	833.7	145.1	112.1	106.8	97.9	93.2	91.5	92.0	95.6	96.2
52.5°	1260.3	903.9	139.8	109.7	103.8	93.2	89.1	87.3	88.5	92.6	93.2
55°	1374.8	984.2	147.5	110.9	100.9	90.3	85.6	83.2	85.0	88.5	89.1
57.5°	1491.0	1083.3	173.5	111.5	97.4	87.9	82.0	78.5	79.7	82.6	83.2
60°	1608.4	1181.8	218.3	112.1	96.2	85.6	79.1	73.8	74.3	76.1	76.7
62.5°	1746.5	1306.9	277.3	114.5	97.4	83.8	73.8	67.9	67.9	69.0	69.0
65°	1955.9	1493.4	316.3	113.3	100.3	82.0	68.4	62.5	62.0	62.5	62.5
67.5°	2106.4	1518.1	220.7	106.8	102.1	82.6	65.5	57.8	56.6	56.1	56.1
70°	1947.1	1277.4	145.7	100.9	99.1	83.8	63.1	54.9	52.5	50.7	50.2
71°	1836.7	1151.1	135.1	98.5	96.8	82.6	62.0	53.1	50.7	49.6	49.0
72.5°	1673.3	1027.2	124.5	95.0	91.5	80.2	60.2	51.3	48.4	46.6	46.0
75°	1322.2	787.7	109.2	87.3	79.1	66.1	55.5	47.8	44.8	42.5	41.9
77.5°	597.7	313.3	83.8	75.5	64.3	52.5	48.4	44.3	40.7	38.9	38.4
80°	167.0	119.2	61.4	59.6	48.4	40.7	38.9	37.8	36.6	34.2	34.2
82.5°	77.3	69.6	43.7	41.9	33.0	28.9	30.7	31.3	31.3	28.9	28.3
85°	21.2	23.0	20.1	22.4	21.2	19.5	22.4	24.2	25.4	23.0	21.2
87.5°	1.8	4.1	5.3	8.9	10.6	11.2	14.2	17.1	17.7	14.2	14.8
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)