

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: P401828

Luminaire Tested: **ENT-SA1F-735-U-SL2**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401828  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENT-SA1F-735-U-SL2  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 3500K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE II SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7224 lumens  
Efficiency: N/A  
Efficacy: 109.3 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B2 - U0 - G2

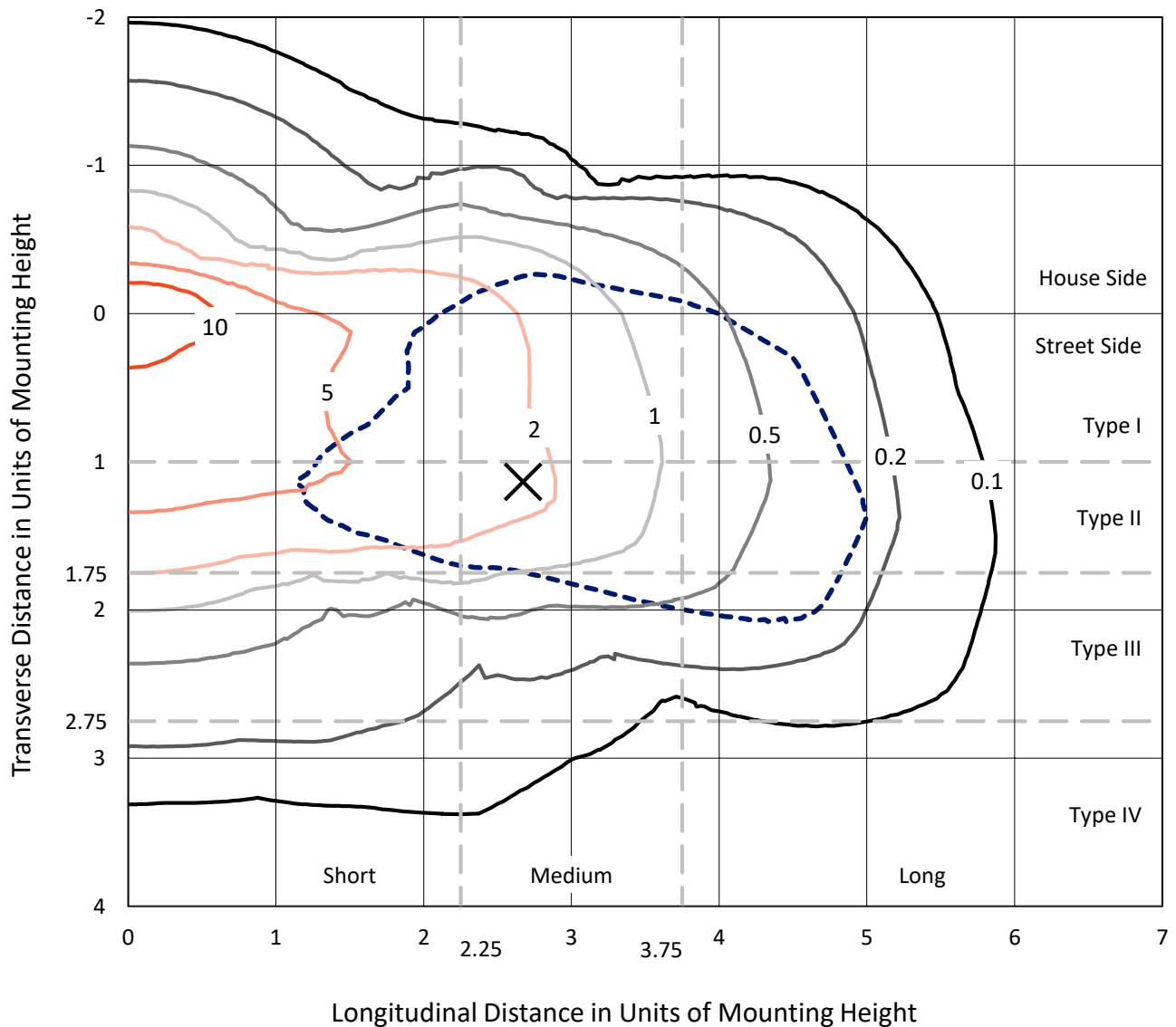
Input Watts (W): 66.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P401828  
 CATALOG NUMBER: ENT-SA1F-735-U-SL2

### Iso-Footcandle Lines of Horizontal Illumination

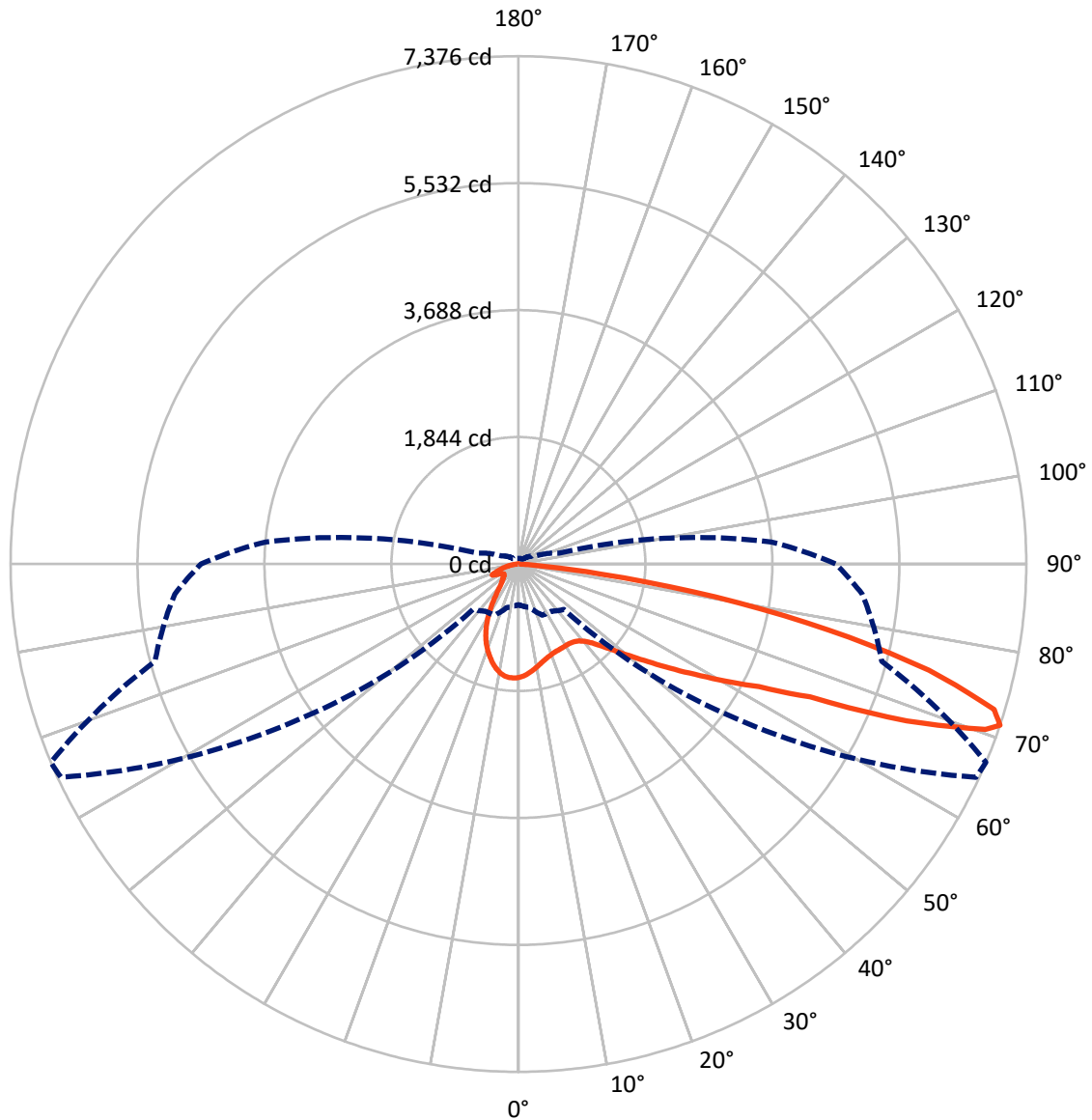
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 16.5 fc  
 Type III - Medium - Non-Cutoff

REPORT NUMBER: P401828  
CATALOG NUMBER: ENT-SA1F-735-U-SL2

### Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral    - - - Horizontal Cone Through 71-Deg Vertical

REPORT NUMBER: P401828

CATALOG NUMBER: ENT-SA1F-735-U-SL2

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1480.0	0.0	1480.0
	% Fixture	20.5	0.0	20.5
<b>Street Side</b>	Lumens	5744.0	0.0	5744.0
	% Fixture	79.5	0.0	79.5
<b>Total</b>	Lumens	7224.0	0.0	7224.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	146.0	2.0
10°-20°	358.7	5.0
20°-30°	484.3	6.7
30°-40°	637.9	8.8
40°-50°	908.6	12.6
50°-60°	1388.0	19.2
60°-70°	1733.1	24.0
70°-80°	1398.9	19.4
80°-90°	168.6	2.3
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°	7224.0	100.0
0°-180°	7224.0	100.0



REPORT NUMBER: P401828

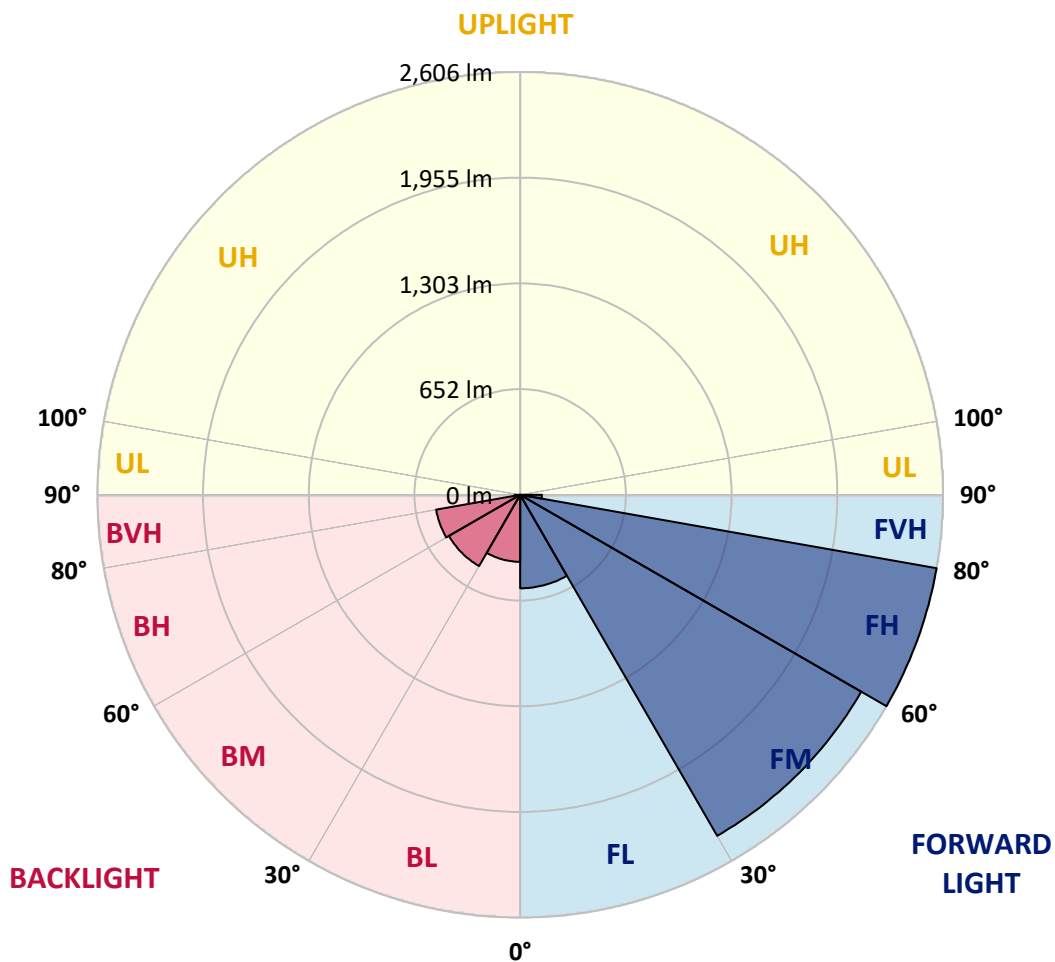
CATALOG NUMBER: ENT-SA1F-735-U-SL2

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	576.1	8.0			
FM	(30°-60°)	2427.4	33.6			
FH	(60°-80°)	2606.1	36.1			G2/5000
FVH	(80°-90°)	134.5	1.9			G2/225
BL	(0°-30°)	412.9	5.7	B1/500		
BM	(30°-60°)	507.0	7.0	B1/1000		
BH	(60°-80°)	525.9	7.3	B2/1000		G2/1000
BVH	(80°-90°)	34.1	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type III Medium





REPORT NUMBER: P401828

CATALOG NUMBER: ENT-SA1F-735-U-SL2

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	1647.3	1647.3	1647.3	1647.3	1647.3	1647.3	1647.3	1647.3	1647.3	1647.3	1647.3
2.5°	1553.7	1560.9	1562.0	1576.5	1581.7	1598.4	1607.7	1623.3	1625.4	1634.8	1641.0
5°	1452.8	1453.8	1460.1	1472.6	1492.3	1522.5	1545.3	1583.8	1591.1	1618.1	1642.1
7.5°	1362.3	1367.5	1377.9	1396.6	1419.5	1454.9	1490.2	1543.3	1553.7	1597.3	1643.1
10°	1301.0	1306.2	1314.5	1335.3	1358.2	1397.7	1440.3	1501.7	1513.1	1573.4	1640.0
12.5°	1252.1	1257.3	1263.5	1286.4	1311.4	1350.9	1394.6	1463.2	1474.6	1544.3	1632.7
15°	1219.8	1220.9	1229.2	1247.9	1276.0	1314.5	1358.2	1428.9	1442.4	1521.4	1630.6
17.5°	1200.1	1202.2	1209.4	1224.0	1249.0	1286.4	1329.0	1400.8	1416.4	1502.7	1631.7
20°	1201.1	1203.2	1207.4	1212.6	1230.2	1262.5	1307.2	1380.0	1395.6	1491.3	1638.9
22.5°	1223.0	1224.0	1225.0	1217.8	1224.0	1246.9	1290.6	1365.4	1382.1	1486.1	1647.3
25°	1264.6	1264.6	1262.5	1245.8	1232.3	1241.7	1281.2	1360.2	1376.9	1481.9	1655.6
27.5°	1321.8	1325.9	1315.5	1295.8	1264.6	1249.0	1279.1	1356.1	1372.7	1481.9	1659.7
30°	1399.8	1401.8	1397.7	1371.7	1320.7	1278.1	1285.4	1353.0	1369.6	1479.8	1660.8
32.5°	1478.8	1485.0	1490.2	1467.4	1406.0	1330.1	1310.3	1357.1	1371.7	1478.8	1657.7
35°	1558.9	1563.0	1588.0	1583.8	1517.3	1408.1	1350.9	1373.8	1386.2	1484.0	1659.7
37.5°	1627.5	1636.9	1673.3	1701.3	1649.3	1514.2	1420.6	1410.2	1417.4	1510.0	1671.2
40°	1701.3	1714.9	1768.9	1822.0	1799.1	1647.3	1519.4	1475.7	1473.6	1557.8	1699.3
42.5°	1784.5	1800.1	1869.8	1946.8	1954.0	1816.8	1651.4	1568.2	1566.1	1640.0	1760.6
45°	1882.3	1896.8	1991.5	2083.0	2127.7	2006.0	1813.7	1699.3	1700.3	1754.4	1858.4
47.5°	2002.9	2025.8	2117.3	2233.8	2313.9	2219.2	2010.2	1882.3	1874.0	1927.0	2018.5
50°	2172.4	2191.2	2267.1	2380.4	2520.8	2477.1	2257.7	2102.8	2096.5	2121.5	2232.7
52.5°	2350.3	2356.5	2392.9	2510.4	2746.5	2790.2	2562.4	2376.3	2352.3	2365.9	2499.0
55°	2360.7	2374.2	2398.1	2546.8	2949.3	3165.6	2898.3	2698.6	2667.4	2658.1	2801.6
57.5°	2144.4	2166.2	2197.4	2389.8	2957.6	3599.2	3375.6	3075.1	3018.9	2972.1	3125.0
60°	1685.7	1713.8	1771.0	2007.1	2746.5	3846.7	4172.2	3497.3	3447.4	3288.3	3441.2
62.5°	1218.8	1230.2	1285.4	1391.4	2179.7	3861.3	5002.1	4048.5	3924.7	3596.1	3713.6
65°	981.7	1000.4	1017.1	1016.0	1290.6	3424.5	5553.3	5029.1	4655.8	3940.3	4013.1
67.5°	809.1	815.3	855.9	926.6	877.7	2115.2	5608.4	6462.2	6083.6	4404.1	4368.8
70°	676.0	678.0	718.6	845.5	840.3	1091.9	4702.6	7286.9	7195.3	5165.4	4925.2
71°	591.7	609.4	654.1	818.4	836.1	932.8	3995.4	7330.5	7376.3	5463.8	5011.5
72.5°	465.9	465.9	529.3	750.8	843.4	861.1	2944.1	7092.4	7224.5	5802.9	4861.7
75°	273.5	271.4	305.7	523.1	862.1	857.9	1607.7	5894.4	6161.6	5864.2	4499.8
77.5°	153.9	157.0	175.7	291.2	684.3	823.6	923.5	4291.8	4606.9	4905.4	3805.1
80°	70.7	74.9	88.4	141.4	403.5	711.3	659.3	2787.0	2906.6	2948.2	1798.1
82.5°	18.7	20.8	27.0	54.1	156.0	484.6	487.7	1166.8	1205.3	696.8	385.8
85°	0.0	0.0	0.0	0.0	2.1	59.3	138.3	210.1	174.7	92.6	79.0
87.5°	0.0	0.0	0.0	0.0	0.0	2.1	3.1	4.2	4.2	4.2	5.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P401828

CATALOG NUMBER: ENT-SA1F-735-U-SL2

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1647.3	1647.3	1647.3	1647.3	1647.3	1647.3	1647.3	1647.3	1647.3	1647.3	1647.3
2.5°	1646.2	1650.4	1657.7	1656.6	1654.5	1642.1	1649.3	1642.1	1641.0	1637.9	1638.9
5°	1650.4	1656.6	1660.8	1651.4	1635.8	1608.8	1599.4	1575.5	1559.9	1551.6	1547.4
7.5°	1656.6	1660.8	1658.7	1632.7	1592.1	1541.2	1497.5	1463.2	1426.8	1420.6	1418.5
10°	1656.6	1660.8	1644.1	1594.2	1524.6	1444.5	1377.9	1321.8	1265.6	1244.8	1247.9
12.5°	1652.5	1654.5	1616.1	1536.0	1435.1	1325.9	1232.3	1139.8	1068.0	1024.3	1016.0
15°	1649.3	1646.2	1578.6	1463.2	1329.0	1193.9	1052.4	927.6	842.4	785.2	777.9
17.5°	1649.3	1637.9	1533.9	1380.0	1213.6	1027.5	840.3	705.1	610.4	577.2	576.1
20°	1651.4	1626.5	1486.1	1293.7	1070.1	829.9	627.1	511.7	476.3	471.1	472.1
22.5°	1653.5	1610.9	1434.1	1195.9	909.9	618.8	448.2	406.6	409.7	422.2	421.2
25°	1651.4	1590.1	1372.7	1086.7	735.2	446.1	361.9	351.5	370.2	384.8	388.9
27.5°	1646.2	1563.0	1307.2	956.7	560.5	351.5	316.1	315.1	333.8	347.3	346.3
30°	1630.6	1530.8	1231.3	819.5	404.5	299.5	284.9	288.1	300.5	313.0	313.0
32.5°	1614.0	1494.4	1151.2	669.7	310.9	271.4	266.2	267.3	275.6	284.9	283.9
35°	1596.3	1459.0	1069.1	513.7	272.5	254.8	252.7	251.7	254.8	256.9	256.9
37.5°	1585.9	1427.8	978.6	386.9	251.7	244.4	240.2	236.1	235.0	232.9	230.9
40°	1590.1	1407.0	891.2	299.5	239.2	232.9	226.7	220.5	216.3	214.2	213.2
42.5°	1619.2	1400.8	794.5	257.9	227.7	222.5	214.2	203.8	199.7	199.7	198.6
45°	1686.8	1419.5	704.0	237.1	217.3	211.1	197.6	190.3	187.2	188.2	188.2
47.5°	1792.9	1472.6	622.9	226.7	210.1	200.7	185.1	177.8	175.7	176.8	176.8
50°	1952.0	1572.4	539.7	217.3	201.7	189.3	175.7	167.4	164.3	164.3	164.3
52.5°	2184.9	1736.7	479.4	211.1	194.5	179.9	166.4	157.0	152.9	152.9	151.8
55°	2468.8	1950.9	456.5	206.9	185.1	171.6	157.0	147.7	141.4	139.4	140.4
57.5°	2779.8	2228.6	489.8	205.9	174.7	162.2	147.7	136.2	130.0	129.0	127.9
60°	3100.1	2504.2	585.5	200.7	166.4	150.8	137.3	126.9	120.6	118.6	117.5
62.5°	3376.7	2778.7	743.6	196.5	160.2	140.4	125.8	116.5	111.3	108.2	108.2
65°	3710.5	3093.8	984.8	201.7	157.0	130.0	115.4	107.1	103.0	99.8	99.8
67.5°	4166.0	3560.8	1167.9	226.7	164.3	121.7	104.0	97.8	94.6	92.6	92.6
70°	4614.2	3822.8	812.2	266.2	183.0	114.4	93.6	89.4	87.4	85.3	85.3
71°	4608.0	3682.4	610.4	275.6	189.3	112.3	89.4	86.3	84.2	83.2	82.2
72.5°	4377.1	3347.6	437.8	267.3	186.1	106.1	84.2	81.1	79.0	79.0	78.0
75°	3925.8	2950.3	342.1	223.6	156.0	94.6	74.9	72.8	70.7	69.7	70.7
77.5°	3216.5	2360.7	269.3	176.8	118.6	78.0	66.6	63.4	62.4	61.4	62.4
80°	1477.8	1028.5	196.5	137.3	88.4	62.4	56.2	55.1	54.1	53.0	53.0
82.5°	355.7	288.1	105.0	91.5	60.3	47.8	44.7	44.7	44.7	43.7	43.7
85°	78.0	78.0	42.6	42.6	36.4	33.3	35.4	35.4	35.4	33.3	33.3
87.5°	4.2	12.5	13.5	19.8	20.8	19.8	23.9	25.0	23.9	22.9	21.8
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)