

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: P677209

Luminaire Tested: **CCW-SA-1F-840-U-SL4-HSS**

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P677209
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-SA-1F-840-U-SL4-HSS
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @1200mA w/
SL4 distribution lens and House Side Shield
Light Source: (16) 4000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

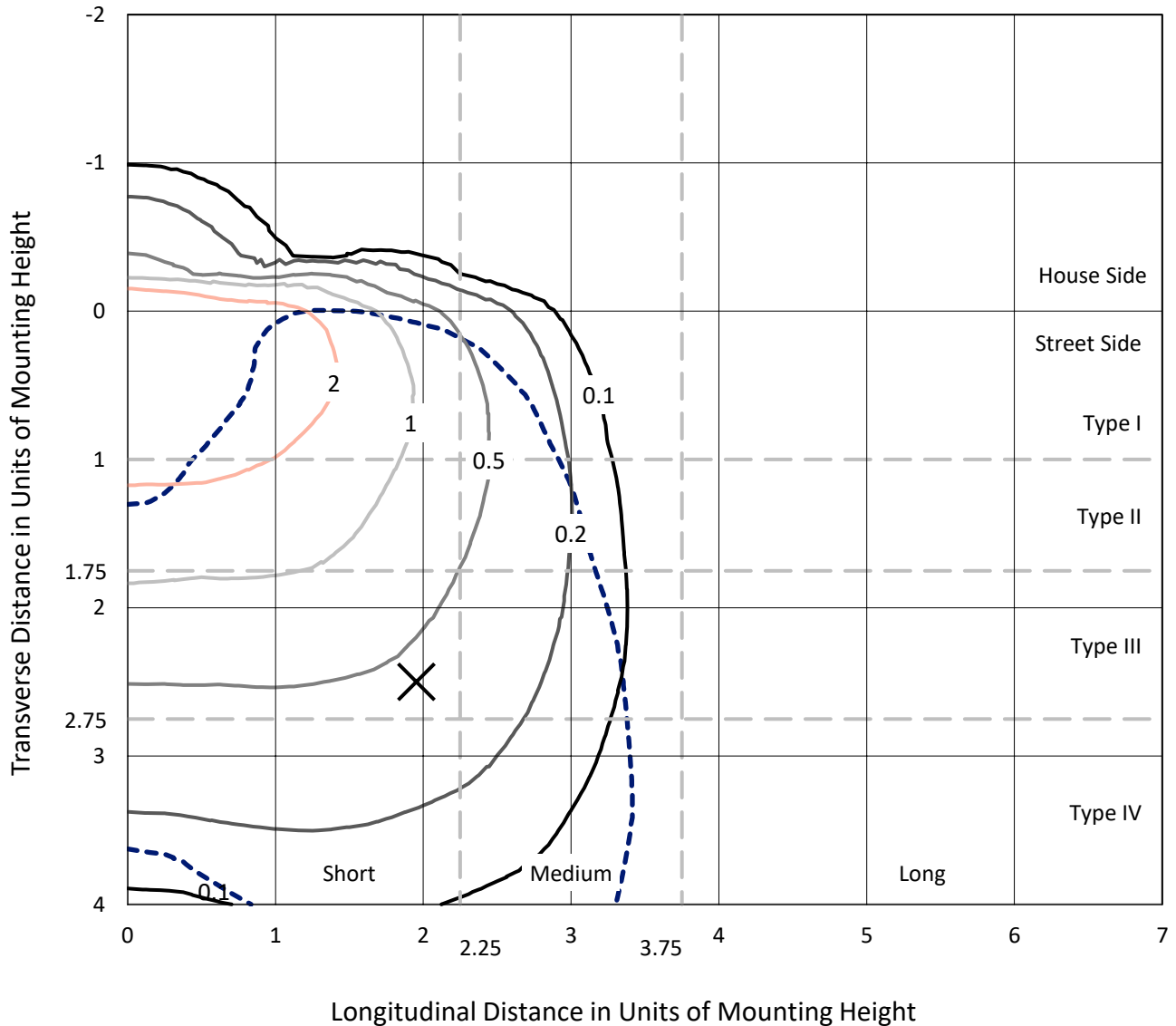
Lumens per Lamp: N/A
Luminaire Lumens: 5280.4 lumens
Efficiency: N/A
Efficacy: 78.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

Input Watts (W): 67
Input Voltage (V): 120
Input Current (A_{in}): 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

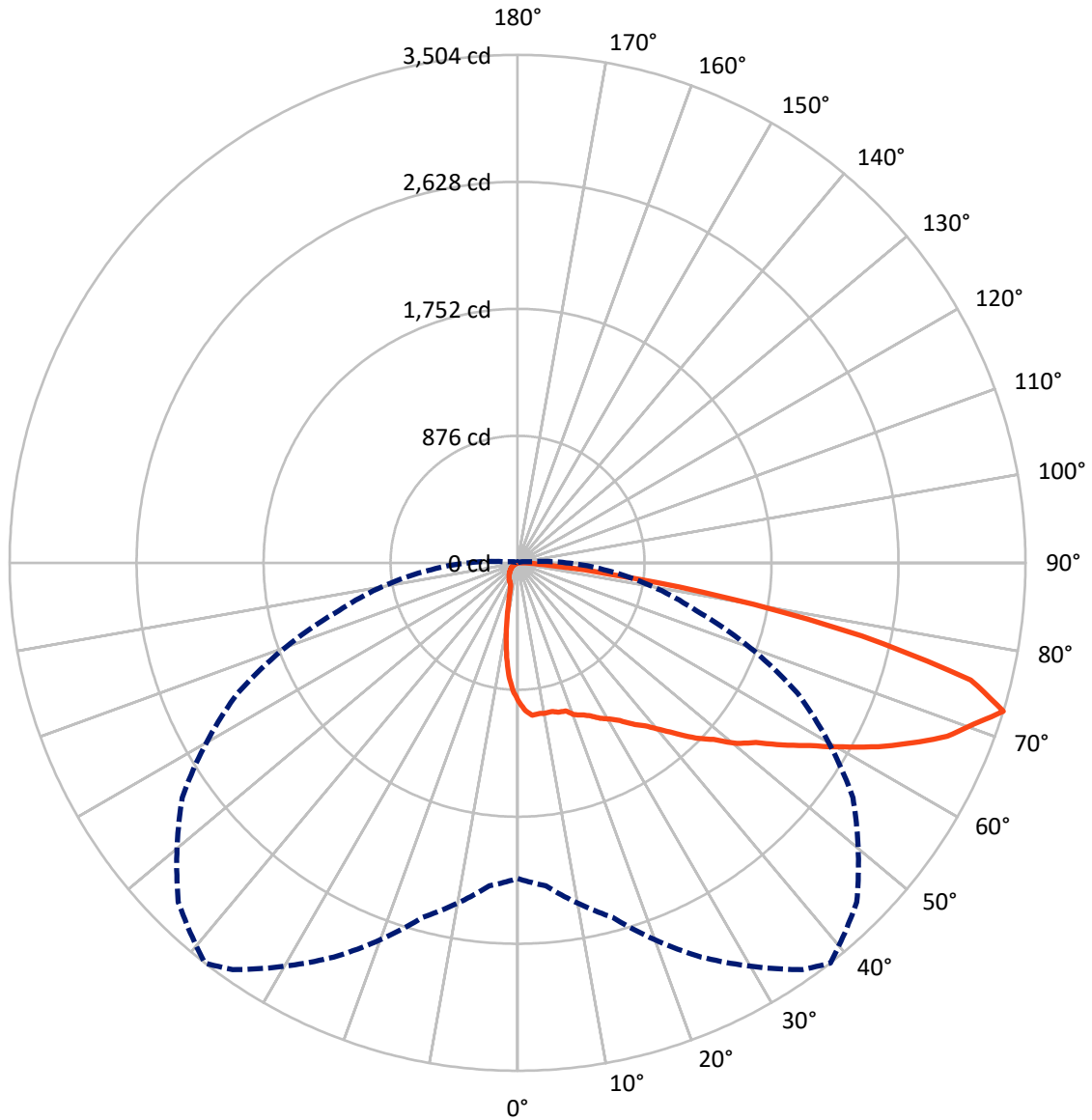
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 4.6 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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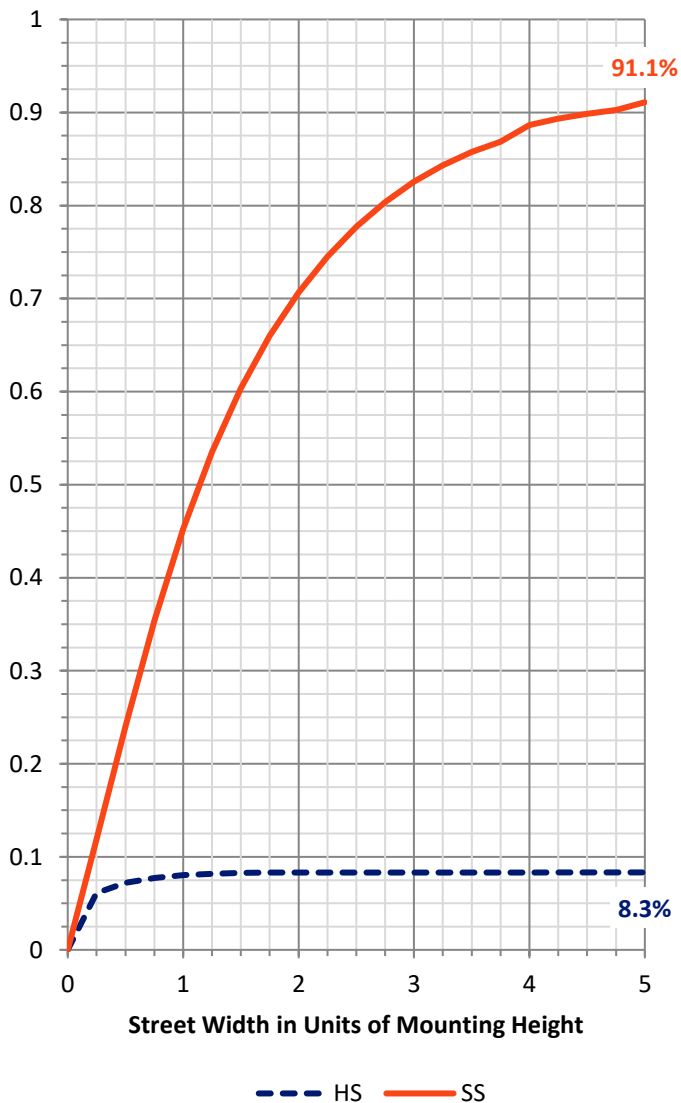
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	442.2	0.0	442.2
	% Fixture	8.4	0.0	8.4
Street Side	Lumens	4838.2	0.0	4838.2
	% Fixture	91.6	0.0	91.6
Total	Lumens	5280.4	0.0	5280.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.6	1.6
10°-20°	204.6	3.9
20°-30°	328.1	6.2
30°-40°	495.3	9.4
40°-50°	753.8	14.3
50°-60°	1061.3	20.1
60°-70°	1296.4	24.6
70°-80°	941.4	17.8
80°-90°	115.9	2.2
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°	5280.4	100.0
0°-180°	5280.4	100.0

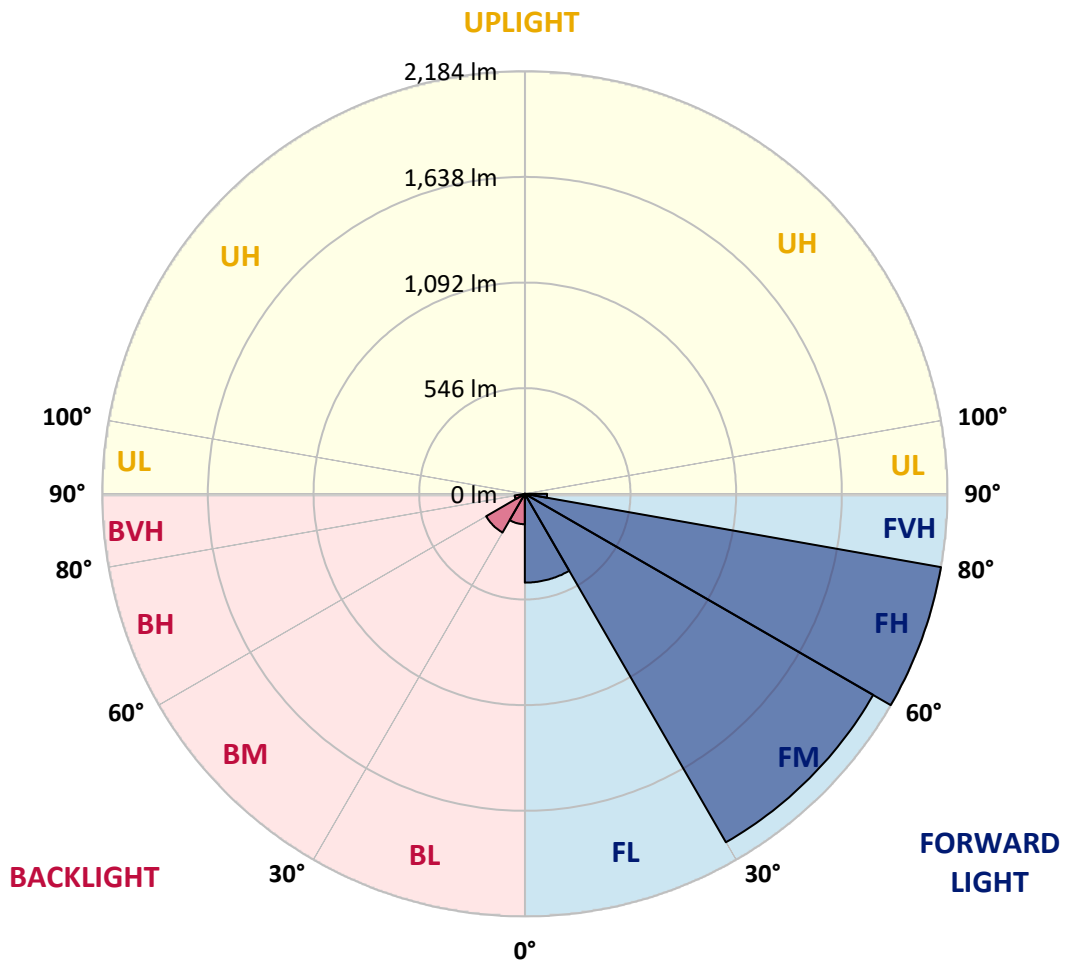


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	459.3	8.7			
FM (30°-60°)	2079.4	39.4			
FH (60°-80°)	2184.1	41.4			G2/5000
FVH (80°-90°)	115.3	2.2			G2/225
BL (0°-30°)	157.0	3.0	B1/500		
BM (30°-60°)	231.0	4.4	B1/1000		
BH (60°-80°)	53.6	1.0	B0/110		G0/110
BVH (80°-90°)	0.6	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	954.9	954.9	954.9	954.9	954.9	954.9	954.9	954.9	954.9	954.9	954.9
2.5°	1049.0	1049.0	1058.9	1049.0	1045.3	1021.8	1023.0	1010.6	998.2	980.9	964.8
5°	1061.4	1070.1	1076.3	1067.6	1054.0	1056.5	1065.1	1041.6	1008.2	987.1	951.2
7.5°	1056.5	1075.0	1070.1	1065.1	1056.5	1050.3	1037.9	1028.0	1011.9	992.1	949.9
10°	1052.7	1058.9	1060.2	1056.5	1037.9	1055.2	1041.6	1025.5	1005.7	982.1	930.1
12.5°	1039.1	1039.1	1050.3	1041.6	1044.1	1052.7	1046.6	1042.8	1021.8	1002.0	956.1
15°	1024.3	1029.2	1046.6	1060.2	1072.6	1068.8	1065.1	1054.0	1035.4	1013.1	964.8
17.5°	1028.0	1030.5	1057.7	1082.5	1076.3	1073.8	1093.6	1070.1	1051.5	1026.7	972.2
20°	1041.6	1049.0	1080.0	1112.2	1118.4	1118.4	1111.0	1097.3	1071.3	1037.9	985.9
22.5°	1055.2	1057.7	1108.5	1149.3	1155.5	1139.4	1145.6	1106.0	1081.2	1062.7	999.5
25°	1107.2	1102.3	1156.8	1189.0	1185.3	1169.2	1163.0	1128.3	1118.4	1084.9	1029.2
27.5°	1177.8	1156.8	1210.0	1229.9	1210.0	1215.0	1197.7	1160.5	1139.4	1119.6	1042.8
30°	1221.2	1233.6	1262.1	1281.9	1248.4	1249.7	1241.0	1200.1	1167.9	1172.9	1088.7
32.5°	1288.1	1296.7	1317.8	1326.5	1300.4	1298.0	1289.3	1257.1	1233.6	1228.6	1150.6
35°	1359.9	1376.0	1377.2	1379.7	1356.2	1366.1	1353.7	1307.9	1320.3	1328.9	1224.9
37.5°	1430.5	1415.6	1440.4	1451.5	1425.5	1425.5	1429.3	1398.3	1420.6	1446.6	1330.2
40°	1457.7	1463.9	1507.3	1498.6	1529.6	1511.0	1524.6	1517.2	1535.8	1595.2	1478.8
42.5°	1486.2	1493.7	1551.9	1568.0	1605.1	1611.3	1631.1	1632.4	1686.9	1784.7	1621.2
45°	1540.7	1528.3	1607.6	1647.2	1707.9	1725.3	1748.8	1768.6	1854.1	1969.3	1783.5
47.5°	1590.3	1572.9	1663.3	1742.6	1816.9	1820.6	1885.0	1906.1	2007.6	2138.9	1944.5
50°	1659.6	1665.8	1704.2	1840.4	1916.0	1959.3	2003.9	2073.3	2186.0	2325.9	2060.9
52.5°	1731.5	1725.3	1789.7	1923.4	2042.3	2058.4	2158.7	2236.8	2359.4	2464.7	2112.9
55°	1819.4	1826.8	1851.6	2027.5	2178.6	2217.0	2329.7	2411.4	2545.2	2524.1	2130.3
57.5°	1907.3	1899.9	1955.6	2143.9	2349.5	2378.0	2527.8	2576.1	2666.5	2563.7	2086.9
60°	1994.0	2007.6	2031.2	2275.2	2536.5	2578.6	2697.5	2722.3	2742.1	2582.3	2053.5
62.5°	2093.1	2060.9	2134.0	2413.9	2704.9	2792.9	2887.0	2789.2	2771.8	2548.9	1976.7
65°	2142.6	2152.6	2247.9	2572.4	2929.1	2993.5	3005.9	2879.6	2790.4	2474.6	1904.8
67.5°	2219.4	2233.1	2354.4	2734.7	3159.5	3195.4	3150.8	2961.3	2774.3	2378.0	1646.0
70°	2229.3	2262.8	2496.9	2904.3	3304.4	3335.3	3300.7	3015.8	2644.2	1997.7	1218.7
72.5°	2177.3	2236.8	2531.5	3000.9	3425.8	3503.8	3309.3	2823.8	2131.5	1274.4	624.2
75°	1644.8	1694.3	2317.3	2857.3	3210.3	3228.8	2905.6	2155.0	1213.8	434.7	159.8
77.5°	852.1	937.6	1546.9	2183.5	2446.1	2426.3	2022.5	1269.5	417.4	113.9	64.4
80°	489.2	510.3	676.2	1226.1	1538.2	1462.7	1118.4	547.4	183.3	57.0	42.1
82.5°	241.5	271.2	364.1	548.7	769.1	632.9	419.9	328.2	102.8	31.0	37.2
85°	52.0	54.5	185.8	262.6	312.1	205.6	143.7	276.2	37.2	18.6	35.9
87.5°	37.2	35.9	52.0	117.7	86.7	53.3	85.5	144.9	8.7	8.7	7.4
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°	954.9	954.9	954.9	954.9	954.9	954.9	954.9	954.9	954.9	954.9	954.9
2.5°	954.9	943.8	931.4	907.8	901.6	897.9	876.9	875.6	871.9	863.3	859.5
5°	928.9	910.3	886.8	862.0	842.2	806.3	762.9	740.6	713.4	714.6	706.0
7.5°	925.2	890.5	857.1	805.0	741.9	675.0	608.1	564.8	533.8	515.2	518.9
10°	907.8	881.8	827.3	730.7	629.2	527.6	442.2	377.7	340.6	312.1	320.8
12.5°	915.3	864.5	787.7	658.9	514.0	388.9	282.4	220.5	193.2	183.3	185.8
15°	910.3	864.5	764.2	580.9	403.8	263.8	183.3	163.5	158.5	158.5	156.1
17.5°	925.2	874.4	724.5	504.1	289.8	175.9	157.3	153.6	149.9	149.9	149.9
20°	946.2	879.4	697.3	418.6	204.4	154.8	147.4	144.9	143.7	143.7	142.4
22.5°	947.5	874.4	646.5	324.5	157.3	146.1	140.0	138.7	138.7	136.2	136.2
25°	954.9	879.4	592.0	244.0	146.1	137.5	132.5	131.3	132.5	131.3	130.0
27.5°	973.5	888.0	537.5	178.3	137.5	130.0	126.3	125.1	125.1	125.1	122.6
30°	997.0	888.0	476.8	147.4	130.0	122.6	118.9	117.7	116.4	116.4	116.4
32.5°	1046.6	916.5	402.5	131.3	120.1	113.9	110.2	110.2	109.0	109.0	107.8
35°	1108.5	936.3	327.0	121.4	111.5	105.3	101.6	101.6	100.3	100.3	99.1
37.5°	1185.3	985.9	250.2	113.9	102.8	96.6	92.9	92.9	92.9	91.7	91.7
40°	1294.3	1036.6	185.8	104.0	94.1	87.9	85.5	84.2	83.0	83.0	80.5
42.5°	1410.7	1114.7	138.7	96.6	86.7	81.7	78.0	74.3	74.3	70.6	70.6
45°	1537.0	1182.8	112.7	87.9	79.3	73.1	69.4	66.9	63.2	60.7	60.7
47.5°	1660.9	1224.9	99.1	78.0	71.8	66.9	63.2	58.2	53.3	52.0	50.8
50°	1761.2	1237.3	87.9	70.6	65.6	60.7	55.7	49.5	44.6	42.1	40.9
52.5°	1761.2	1169.2	79.3	63.2	59.4	54.5	48.3	40.9	34.7	32.2	31.0
55°	1761.2	1061.4	70.6	58.2	53.3	49.5	40.9	33.4	27.2	23.5	22.3
57.5°	1735.2	931.4	63.2	52.0	47.1	42.1	34.7	26.0	19.8	16.1	16.1
60°	1663.3	795.1	54.5	45.8	40.9	34.7	27.2	18.6	12.4	8.7	8.7
62.5°	1571.7	632.9	47.1	38.4	33.4	28.5	21.1	12.4	5.0	2.5	2.5
65°	1411.9	466.9	40.9	32.2	26.0	21.1	13.6	5.0	0.0	0.0	0.0
67.5°	1165.4	312.1	32.2	26.0	22.3	14.9	8.7	1.2	0.0	0.0	0.0
70°	819.9	177.1	24.8	18.6	16.1	9.9	2.5	0.0	0.0	0.0	0.0
72.5°	336.9	78.0	17.3	13.6	11.1	5.0	0.0	0.0	0.0	0.0	0.0
75°	91.7	34.7	11.1	7.4	6.2	1.2	0.0	0.0	0.0	0.0	0.0
77.5°	53.3	23.5	5.0	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
80°	42.1	11.1	2.5	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	42.1	6.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	35.9	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.0	0.0	0.0	0.0	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

(END OF REPORT)