

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: P401770

Luminaire Tested: **ENT-SA1E-830-U-T4FT**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401770
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-15)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1E-830-U-T4FT
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 3000K, 1050mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5352 lumens
Efficiency: N/A
Efficacy: 93.6 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 - G2

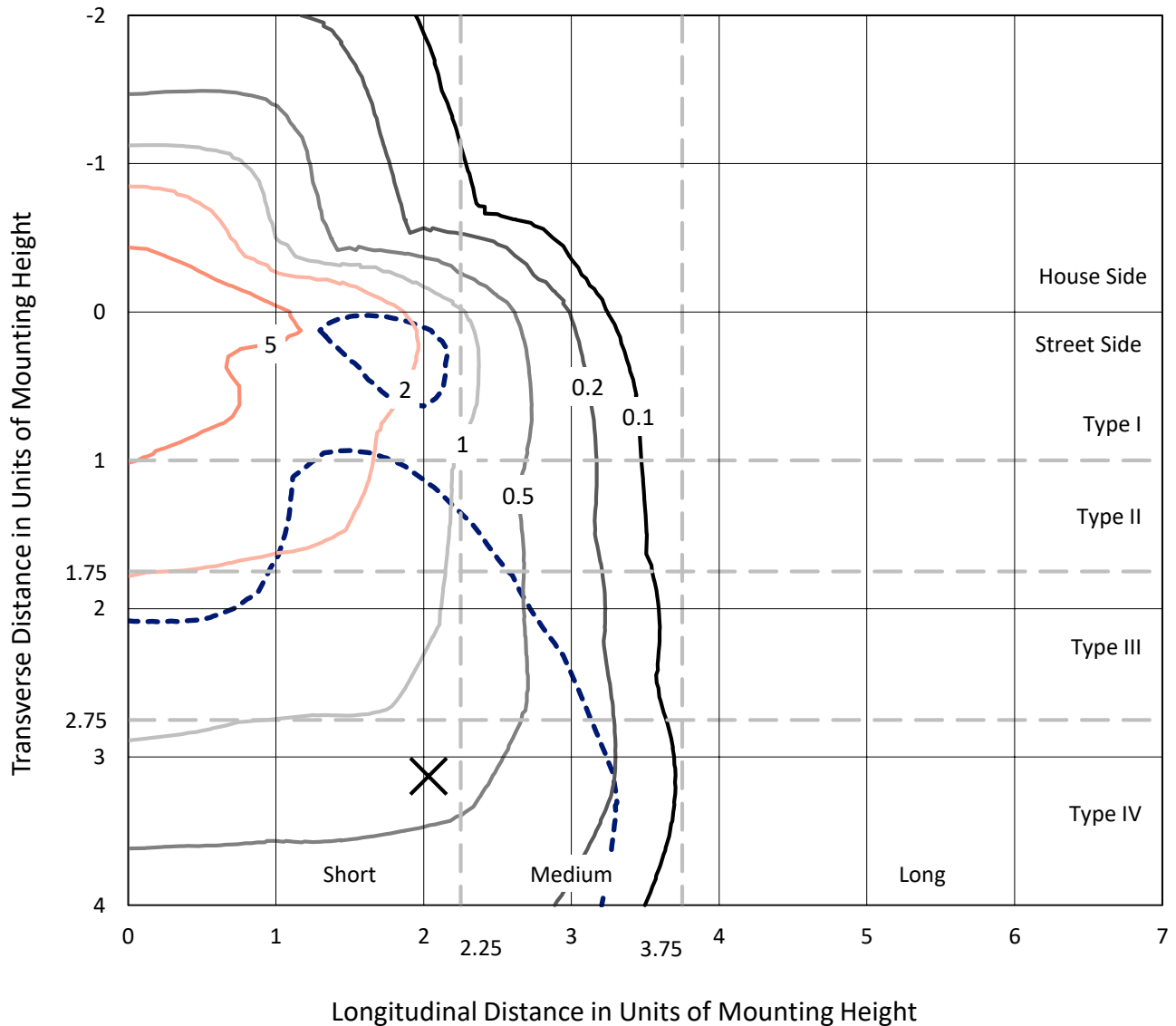
Input Watts (W): 57.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

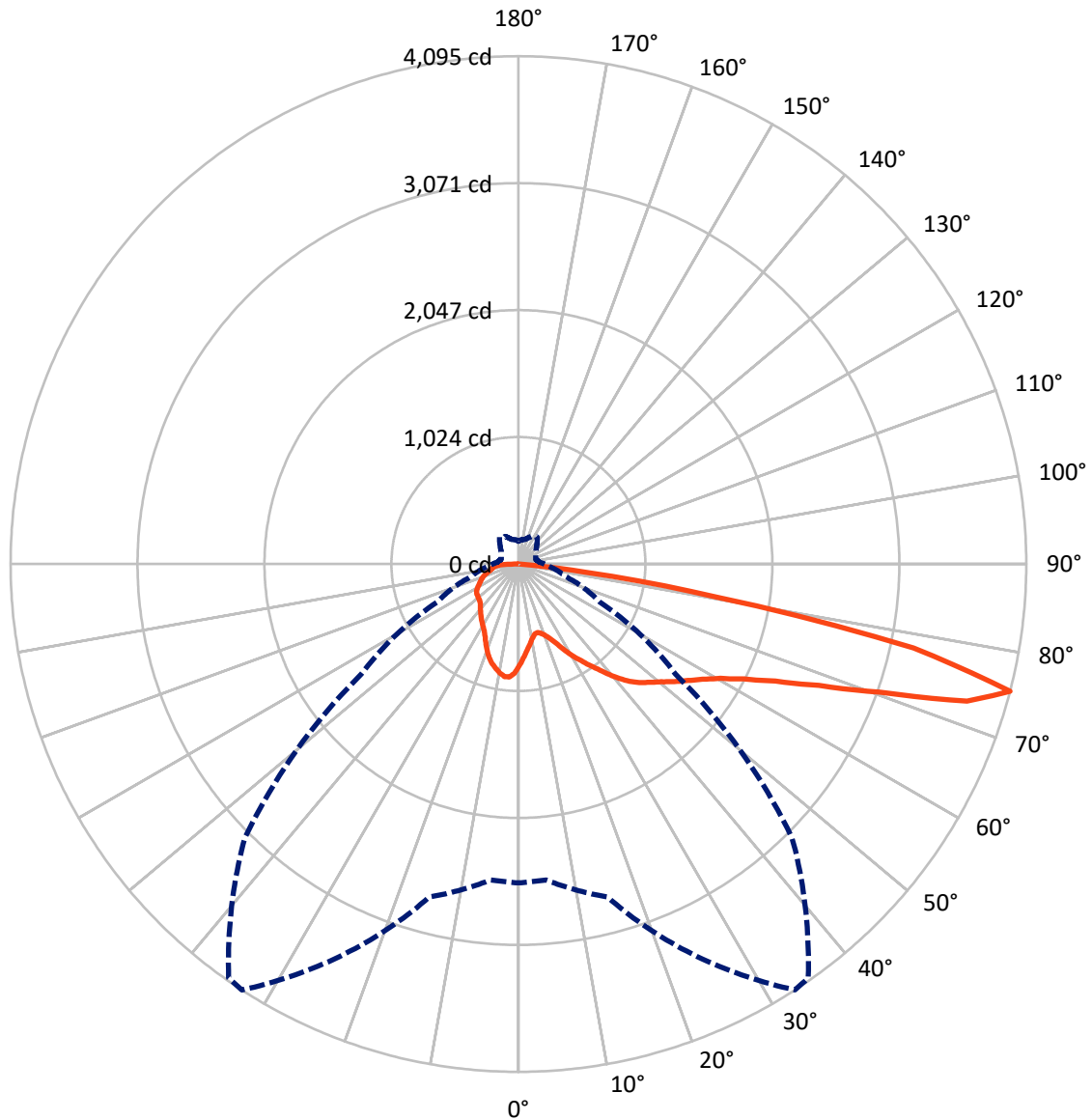
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.8 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 33-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1300.1	0.0	1300.1
	% Fixture	24.3	0.0	24.3
Street Side	Lumens	4051.9	0.0	4051.9
	% Fixture	75.7	0.0	75.7
Total	Lumens	5352.0	0.0	5352.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.6	1.4
10°-20°	215.5	4.0
20°-30°	358.3	6.7
30°-40°	534.5	10.0
40°-50°	746.7	14.0
50°-60°	996.7	18.6
60°-70°	1235.8	23.1
70°-80°	1068.5	20.0
80°-90°	119.4	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°	5352.0	100.0
0°-180°	5352.0	100.0



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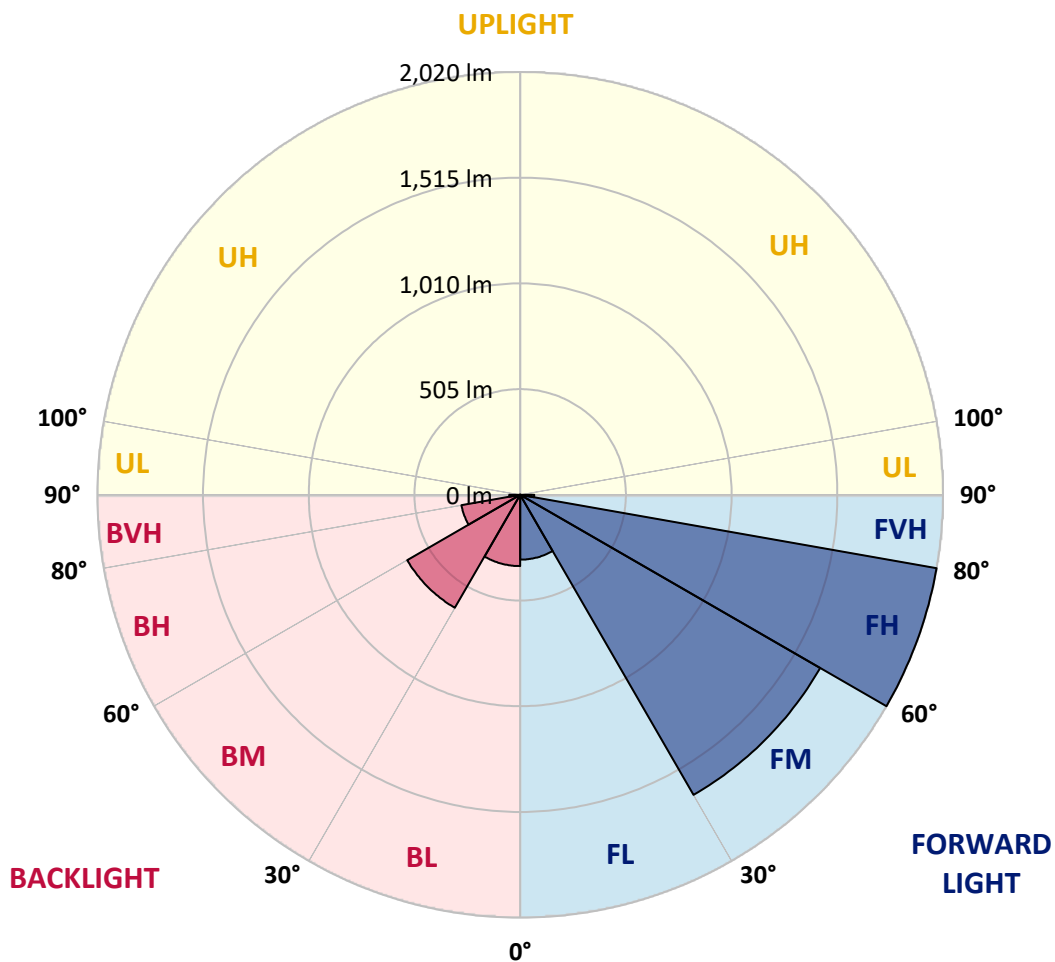
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	309.9	5.8			
FM (30°-60°)	1654.9	30.9			
FH (60°-80°)	2019.6	37.7			G2/5000
FVH (80°-90°)	67.5	1.3			G1/100
BL (0°-30°)	340.5	6.4	B1/500		
BM (30°-60°)	623.0	11.6	B1/1000		
BH (60°-80°)	284.7	5.3	B1/500		G1/500
BVH (80°-90°)	51.9	1.0			G1/100
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°	33°	35°	45°	55°	65°	75°	85°
0°	820.1	820.1	820.1	820.1	820.1	820.1	820.1	820.1	820.1	820.1	820.1
2.5°	743.8	745.4	750.2	755.7	758.9	758.9	767.6	778.0	790.7	801.8	813.7
5°	681.8	684.2	688.2	695.3	704.1	705.7	723.1	741.4	764.5	789.1	812.9
7.5°	620.6	625.4	633.3	642.9	656.4	659.6	684.2	708.8	740.6	778.0	816.9
10°	573.7	576.9	580.9	594.4	611.1	616.7	649.2	680.2	723.9	770.0	821.7
12.5°	561.0	561.0	561.0	567.4	580.9	585.7	619.8	659.6	708.8	764.5	828.8
15°	579.3	578.5	569.8	565.0	572.9	576.9	606.3	645.3	700.9	766.0	842.3
17.5°	620.6	618.2	597.6	581.7	587.3	589.6	608.7	642.1	698.5	772.4	862.2
20°	674.7	669.1	637.3	613.5	612.7	614.3	628.6	651.6	702.5	783.5	883.7
22.5°	746.2	743.0	696.1	659.6	653.2	653.2	659.6	673.9	712.8	796.2	913.1
25°	838.4	829.6	773.2	723.9	709.6	705.7	704.9	704.9	731.1	815.3	949.6
27.5°	932.9	922.6	865.4	798.6	779.6	772.4	759.7	750.2	754.9	836.0	993.3
30°	1018.0	1003.7	955.2	886.0	857.4	846.3	823.3	803.4	790.7	864.6	1051.3
32.5°	1064.8	1059.3	1025.9	963.1	930.5	925.8	887.6	861.4	839.2	901.9	1129.2
35°	1127.6	1120.5	1099.0	1047.4	1008.4	996.5	967.9	936.9	901.1	952.0	1227.7
37.5°	1185.6	1181.7	1173.7	1137.9	1096.6	1084.7	1058.5	1025.9	977.4	1025.9	1338.2
40°	1244.4	1239.7	1236.5	1223.8	1194.4	1186.4	1173.7	1135.6	1070.4	1107.0	1447.1
42.5°	1330.3	1319.9	1286.6	1285.8	1288.1	1294.5	1295.3	1253.2	1172.1	1207.9	1542.4
45°	1442.3	1413.7	1339.0	1336.6	1364.4	1381.1	1421.6	1385.9	1277.8	1311.2	1648.9
47.5°	1499.5	1470.1	1393.0	1388.3	1424.8	1449.5	1549.6	1514.6	1387.5	1427.2	1759.4
50°	1527.3	1508.3	1440.7	1455.8	1493.2	1517.0	1671.2	1643.4	1501.1	1552.8	1898.4
52.5°	1566.3	1534.5	1486.8	1518.6	1574.2	1598.9	1780.0	1775.3	1597.3	1689.4	2051.0
55°	1552.8	1536.1	1544.8	1587.7	1657.7	1694.2	1889.7	1889.7	1695.0	1835.7	2202.0
57.5°	1563.9	1552.8	1625.1	1663.2	1751.4	1803.9	2021.6	1986.6	1777.6	1958.0	2303.7
60°	1658.5	1626.7	1683.1	1758.6	1872.2	1923.1	2172.6	2088.4	1845.2	2063.7	2322.0
62.5°	1825.3	1799.9	1805.5	1892.1	2039.1	2097.9	2322.0	2178.2	1890.5	2108.2	2253.6
65°	2101.9	2089.9	2021.6	2074.1	2276.7	2329.9	2508.7	2256.0	1877.8	2074.9	2073.3
67.5°	2473.8	2426.1	2333.9	2380.8	2614.4	2668.5	2733.6	2285.4	1795.1	1875.4	1666.4
70°	2782.1	2742.4	2700.2	2823.4	3092.0	3121.4	2968.0	2257.6	1594.1	1467.7	1117.3
72.5°	2978.4	2949.8	2988.7	3351.1	3781.0	3725.4	3199.3	2062.9	1243.6	898.8	558.6
75°	2570.7	2557.2	2779.7	3514.8	4094.9	4074.2	3119.0	1544.0	721.5	395.7	254.3
77.5°	1292.9	1439.9	1674.3	2493.6	3258.1	3262.1	2272.7	742.2	303.6	221.7	174.8
80°	364.0	368.7	558.6	1028.3	1626.7	1733.1	859.8	251.9	173.2	165.3	130.3
82.5°	86.6	80.3	143.0	304.4	545.9	568.2	258.3	90.6	96.9	103.3	80.3
85°	0.8	0.8	0.8	0.8	0.8	1.6	9.5	9.5	23.0	29.4	23.0
87.5°	0.0	0.0	0.0	0.8	0.8	0.8	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°	820.1	820.1	820.1	820.1	820.1	820.1	820.1	820.1	820.1	820.1	820.1
2.5°	819.3	827.2	840.0	851.1	860.6	867.8	878.9	880.5	883.7	885.2	886.8
5°	826.4	841.5	865.4	886.0	900.3	904.3	913.9	913.1	913.9	913.9	913.1
7.5°	836.0	856.6	890.0	913.1	921.0	918.6	916.2	907.5	900.3	897.2	893.2
10°	847.9	871.7	910.7	927.4	923.4	910.7	895.6	879.7	867.0	860.6	859.0
12.5°	859.8	890.8	927.4	932.1	916.2	893.2	867.8	850.3	833.6	824.9	824.9
15°	879.7	913.9	940.9	931.3	902.7	873.3	838.4	814.5	795.5	783.5	782.7
17.5°	903.5	940.1	955.2	927.4	886.0	844.7	802.6	771.6	747.0	735.1	727.9
20°	932.9	967.1	962.3	914.7	861.4	810.6	758.1	720.8	695.3	682.6	680.2
22.5°	966.3	994.9	964.7	894.0	828.0	762.9	705.7	668.3	651.6	642.1	642.9
25°	1006.8	1029.1	965.5	869.4	780.4	700.1	650.0	632.5	630.2	626.2	627.8
27.5°	1057.7	1064.8	962.3	836.0	719.2	634.1	604.7	611.9	618.2	615.9	617.4
30°	1118.1	1107.8	955.2	787.5	643.7	573.7	575.3	591.2	600.0	597.6	598.4
32.5°	1188.8	1150.7	941.7	728.7	572.2	537.2	549.9	565.8	574.5	574.5	575.3
35°	1268.3	1202.3	915.4	652.4	522.1	514.9	526.1	538.8	544.3	541.2	543.5
37.5°	1351.7	1246.8	873.3	567.4	484.7	497.5	503.8	507.0	506.2	501.4	499.0
40°	1429.6	1281.8	797.8	483.2	453.7	479.2	482.4	473.6	463.3	454.5	449.0
42.5°	1489.2	1300.1	692.9	422.0	424.3	458.5	460.9	443.4	423.6	410.0	406.9
45°	1550.4	1306.4	588.8	372.7	392.6	437.9	444.2	420.4	393.4	377.5	375.1
47.5°	1620.3	1322.3	486.3	338.5	365.5	423.6	433.9	404.5	374.3	350.4	346.5
50°	1714.1	1352.5	409.2	312.3	346.5	416.4	430.7	391.8	353.6	327.4	324.2
52.5°	1833.3	1397.0	337.7	291.6	331.4	405.3	425.9	379.1	338.5	306.7	302.0
55°	1935.8	1413.7	291.6	274.2	315.5	391.8	422.0	374.3	321.8	286.1	280.5
57.5°	1982.7	1366.0	259.1	256.7	298.8	375.1	414.0	358.4	303.6	275.7	271.0
60°	1961.2	1247.6	234.4	240.8	279.7	353.6	393.4	342.5	290.8	267.8	263.0
62.5°	1865.9	1110.9	216.1	225.7	258.3	326.6	369.5	328.2	279.7	259.1	252.7
65°	1698.2	960.7	202.6	212.2	239.2	300.4	350.4	311.5	267.0	246.3	240.8
67.5°	1385.9	764.5	188.3	198.7	223.3	278.9	333.0	298.0	252.7	239.2	234.4
70°	917.0	514.1	174.8	185.2	207.4	258.3	314.7	283.7	239.2	230.5	224.1
72.5°	421.2	276.5	160.5	170.9	189.1	235.2	291.6	262.2	220.9	215.4	205.8
75°	208.2	170.1	143.0	152.6	166.9	207.4	264.6	244.0	204.2	194.7	183.6
77.5°	151.8	127.1	123.2	132.7	144.6	183.6	236.0	224.9	187.5	174.0	167.7
80°	112.8	98.5	103.3	112.8	124.0	166.1	220.9	210.6	173.2	159.7	155.0
82.5°	69.1	66.0	79.5	90.6	104.1	152.6	210.6	192.3	155.8	143.0	137.5
85°	19.9	23.8	40.5	58.8	73.9	123.2	196.3	168.5	131.1	109.7	105.7
87.5°	0.0	2.4	12.7	27.0	43.7	81.8	151.0	131.9	100.1	81.1	77.9
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)