

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: P401407

Luminaire Tested: **ENV-SA1C-830-U-T3-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401407
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-14)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1C-830-U-T3-HSS
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 3000K, 615mA LIGHTSQUARE WITH 16 LEDS AND TYPE III OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2754 lumens
Efficiency: N/A
Efficacy: 82.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B0 - U0 - G1

Input Watts (W): 33.3
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

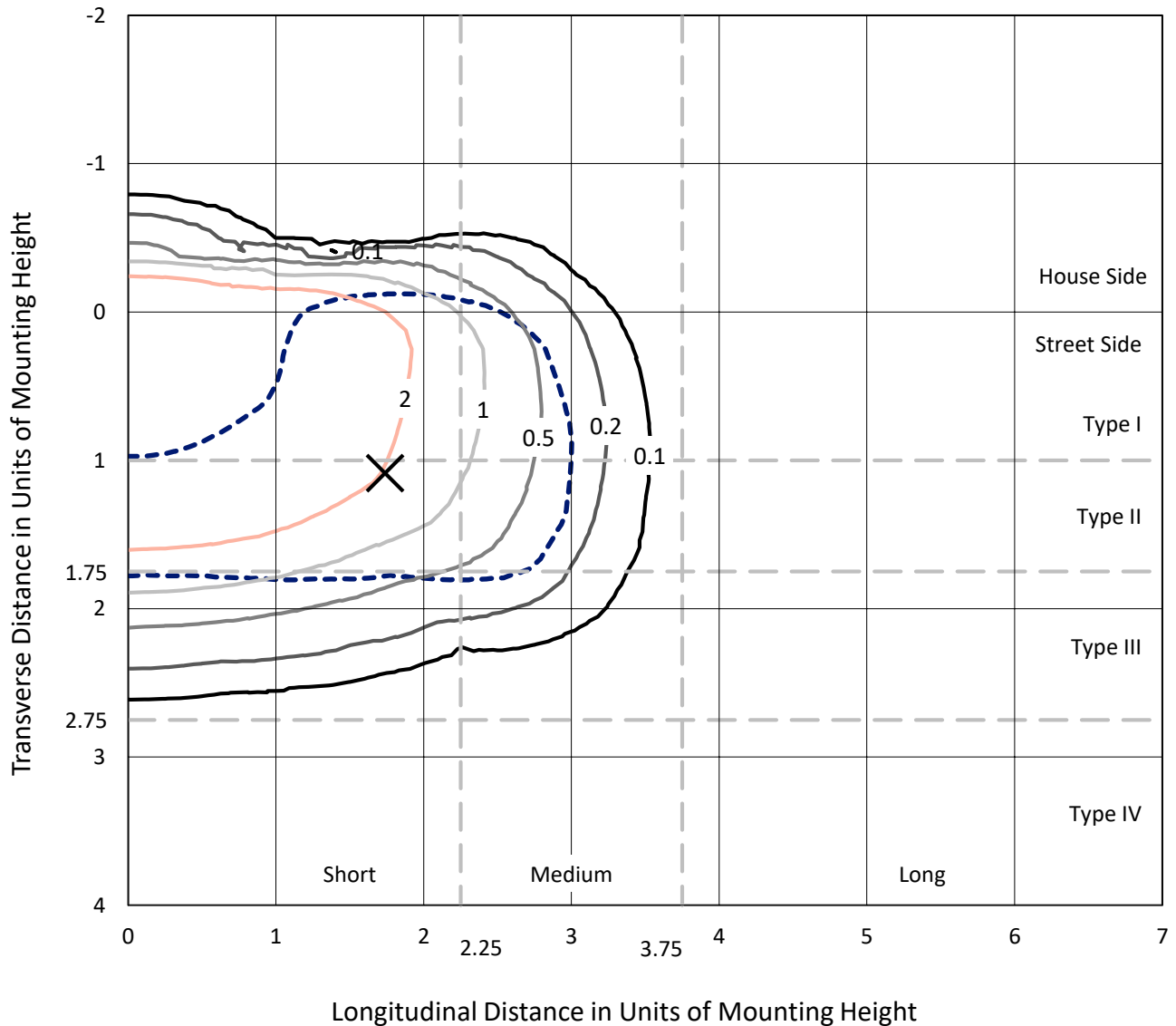


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

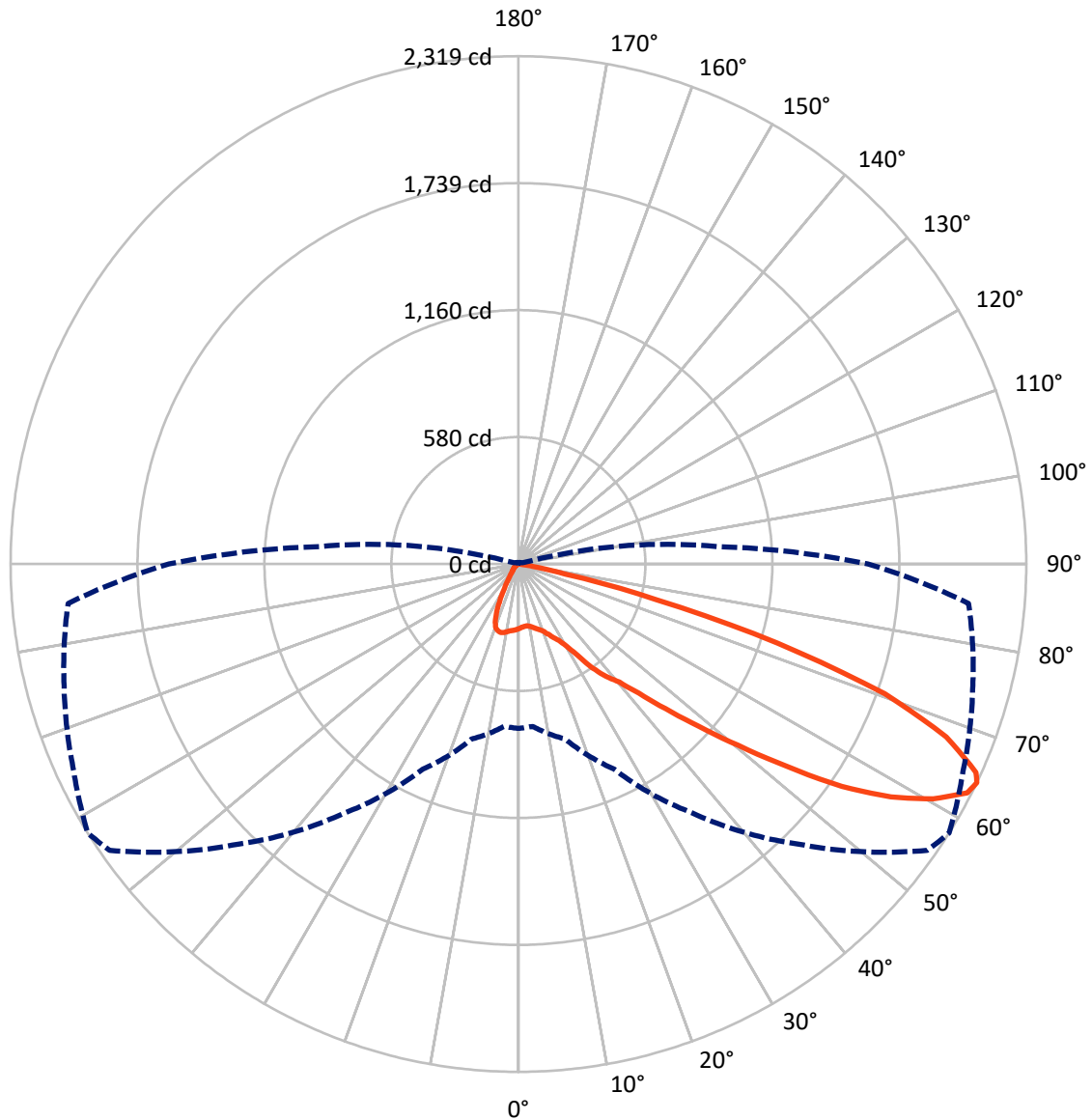


Based on 10 foot mounting height. Maximum calculated value = 4.4 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 64-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	328.3	0.0	328.3
	% Fixture	11.9	0.0	11.9
Street Side	Lumens	2425.7	0.0	2425.7
	% Fixture	88.1	0.0	88.1
Total	Lumens	2754.0	0.0	2754.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.9	1.0
10°-20°	81.3	3.0
20°-30°	146.0	5.3
30°-40°	255.9	9.3
40°-50°	468.0	17.0
50°-60°	800.5	29.1
60°-70°	776.6	28.2
70°-80°	192.4	7.0
80°-90°	5.5	0.2
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°	2754.0	100.0
0°-180°	2754.0	100.0



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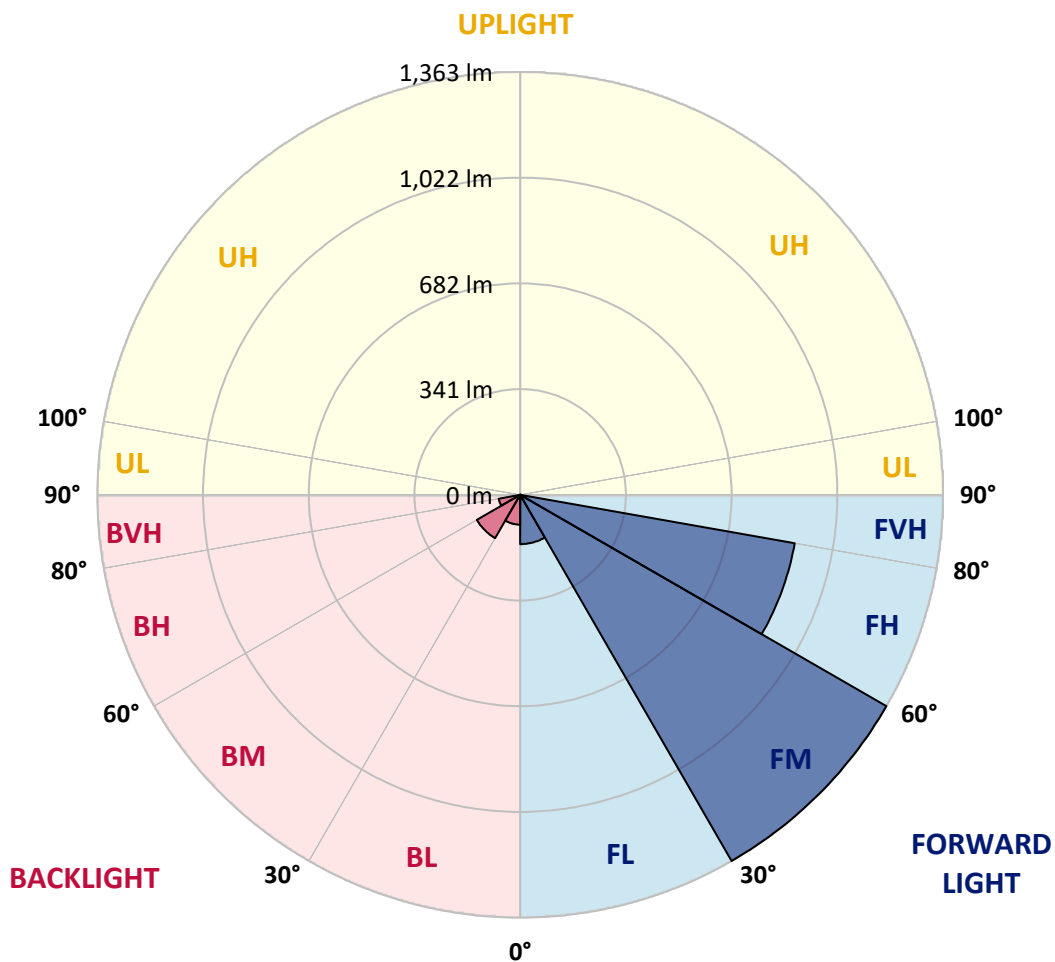
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	159.0	5.8			
FM (30°-60°)	1363.2	49.5			
FH (60°-80°)	898.8	32.6			G1/1800
FVH (80°-90°)	4.6	0.2			G0/10
BL (0°-30°)	96.1	3.5	B0/110		
BM (30°-60°)	161.3	5.9	B0/220		
BH (60°-80°)	70.1	2.5	B0/110		G0/110
BVH (80°-90°)	0.8	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	295.0	295.0	295.0	295.0	295.0	295.0	295.0	295.0	295.0	295.0	295.0
2.5°	282.8	282.8	283.8	284.3	285.8	287.4	289.4	289.9	290.9	293.5	294.5
5°	267.5	268.0	269.0	271.6	275.1	279.2	284.3	285.8	289.9	295.0	298.6
7.5°	261.4	261.9	263.4	266.5	271.1	277.2	283.3	285.3	290.9	299.1	304.2
10°	260.4	260.4	262.4	267.0	272.6	280.2	286.8	289.4	297.0	306.7	314.9
12.5°	260.4	260.4	262.9	268.5	275.1	284.8	294.0	297.5	306.2	318.4	328.6
15°	264.9	266.0	267.5	271.1	278.7	289.4	302.1	306.2	316.9	331.7	344.4
17.5°	297.5	296.5	291.4	286.8	285.3	294.5	309.8	315.4	331.2	350.0	363.8
20°	360.7	360.2	351.0	328.6	308.8	303.7	321.5	328.1	351.0	376.0	386.2
22.5°	437.1	439.7	425.4	395.4	354.6	328.6	338.8	348.0	377.5	407.6	413.7
25°	513.1	516.1	502.9	465.2	415.2	369.9	362.8	370.9	404.5	434.6	432.1
27.5°	602.7	600.2	586.9	544.1	486.1	425.4	394.9	396.4	422.4	456.0	447.8
30°	668.5	664.9	652.2	623.1	568.6	499.3	440.7	436.1	443.8	481.0	472.3
32.5°	728.6	731.1	721.4	682.7	631.3	575.2	509.5	497.3	494.2	525.8	511.5
35°	788.2	787.7	784.1	750.0	699.5	646.6	591.5	582.9	581.8	612.4	573.7
37.5°	859.5	856.0	849.3	814.7	774.4	724.0	665.4	651.6	649.1	655.2	609.9
40°	935.9	940.5	929.8	893.7	849.8	812.1	730.1	709.2	691.9	709.7	680.7
42.5°	1049.6	1053.1	1034.3	1009.3	952.8	917.6	834.6	806.0	797.9	824.9	792.3
45°	1192.2	1185.6	1172.9	1155.5	1108.7	1055.2	968.6	941.6	932.9	979.3	925.8
47.5°	1303.3	1302.3	1302.8	1299.2	1292.1	1227.9	1125.0	1106.6	1098.0	1164.7	1105.6
50°	1373.6	1377.7	1395.0	1439.3	1471.9	1444.9	1324.2	1301.8	1295.1	1364.4	1284.4
52.5°	1426.6	1436.3	1465.3	1552.9	1657.4	1666.6	1566.7	1535.1	1519.8	1539.2	1428.1
55°	1453.6	1458.2	1502.5	1631.9	1795.5	1861.2	1819.4	1792.9	1731.3	1694.6	1596.8
57.5°	1390.4	1383.3	1459.7	1624.3	1866.8	2018.1	2036.0	2005.9	1907.0	1878.5	1801.6
60°	1224.8	1221.8	1307.9	1505.6	1804.6	2054.8	2196.4	2177.6	2086.9	2019.1	1946.8
62.5°	934.4	939.5	1030.7	1232.0	1583.0	1949.3	2285.6	2300.9	2204.6	2103.7	2054.3
64°	750.5	744.4	827.9	1032.8	1388.9	1808.7	2279.0	2319.2	2240.3	2148.0	2064.0
65°	630.2	617.0	697.0	882.4	1224.8	1706.8	2232.1	2296.8	2242.8	2158.7	2028.8
67.5°	331.7	338.8	373.0	536.0	826.9	1290.6	2010.0	2107.8	2129.7	2012.5	1768.0
70°	148.8	149.8	171.7	273.6	457.5	837.1	1616.6	1775.1	1787.3	1653.3	1280.9
72.5°	49.4	49.9	75.9	109.5	192.1	387.7	1091.9	1236.0	1262.5	1072.0	695.0
75°	30.6	31.6	40.3	59.1	89.2	135.5	553.3	651.1	656.7	475.4	252.7
77.5°	19.4	20.4	24.5	35.2	48.9	51.5	181.4	219.6	248.6	171.2	78.5
80°	12.2	12.2	15.8	21.4	25.5	21.9	49.4	65.2	78.5	57.6	26.5
82.5°	4.6	4.6	8.2	11.7	10.7	7.6	13.2	17.3	30.1	28.5	12.7
85°	0.0	0.0	0.5	1.0	0.5	1.0	2.5	3.6	5.6	8.2	4.1
87.5°	0.0	0.0	0.0	0.0	0.5	0.5	1.0	1.0	1.0	1.0	1.0
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°	295.0	295.0	295.0	295.0	295.0	295.0	295.0	295.0	295.0	295.0	295.0
2.5°	296.0	297.0	299.1	299.6	300.1	298.6	300.1	298.6	299.6	299.6	299.6
5°	300.6	302.1	303.7	304.2	303.7	300.1	301.1	298.6	298.1	298.1	298.1
7.5°	306.7	308.2	310.8	309.3	306.2	301.1	300.6	297.0	295.5	295.5	296.0
10°	317.9	319.5	320.5	317.4	311.3	303.7	298.1	290.4	286.8	285.3	285.3
12.5°	332.2	333.7	333.2	328.1	316.9	301.1	285.3	270.5	259.8	255.8	251.7
15°	347.5	349.5	348.5	337.8	316.4	288.4	257.8	223.2	201.8	188.0	185.5
17.5°	365.3	367.3	362.3	342.9	308.8	261.4	203.3	156.4	125.3	113.6	113.1
20°	387.2	386.2	374.0	343.4	295.0	211.4	136.0	97.8	84.6	81.5	81.0
22.5°	412.2	407.6	385.2	340.3	257.3	143.7	87.6	77.4	75.9	74.9	74.9
25°	426.4	418.3	389.3	331.7	198.2	91.7	74.4	72.3	70.3	68.3	67.8
27.5°	437.7	425.4	390.8	303.2	132.0	70.3	67.3	65.2	62.2	59.1	58.6
30°	458.0	439.7	393.3	253.2	81.0	60.1	58.6	55.0	50.4	47.4	46.4
32.5°	494.7	468.2	403.5	189.5	59.1	53.0	48.9	44.3	39.2	36.2	36.2
35°	534.0	495.2	408.6	124.8	51.5	46.4	40.3	34.6	30.1	27.5	27.0
37.5°	570.1	534.0	407.1	76.4	45.9	39.7	33.1	27.5	23.4	21.4	21.4
40°	644.0	601.7	386.2	52.5	40.3	33.6	27.0	21.4	18.9	17.3	17.3
42.5°	749.5	676.1	339.8	44.8	35.2	28.0	21.4	17.8	15.8	14.3	14.3
45°	867.7	758.1	271.1	40.3	30.6	23.4	17.8	14.8	12.7	12.2	12.2
47.5°	1022.6	857.5	199.2	36.2	26.5	19.9	14.8	12.2	11.2	10.7	10.7
50°	1158.1	938.0	136.0	31.6	23.4	16.8	12.7	11.2	10.2	9.7	9.7
52.5°	1281.4	994.0	89.7	27.5	20.9	13.8	11.7	10.2	9.7	9.2	9.2
55°	1426.6	1036.8	60.6	23.9	18.3	12.7	11.2	10.2	9.2	9.2	8.7
57.5°	1549.9	1062.3	43.3	20.4	16.3	11.7	10.7	9.7	8.7	8.2	8.2
60°	1621.7	1032.2	31.6	17.8	14.3	10.7	9.7	8.7	8.2	7.6	7.6
62.5°	1641.6	974.2	24.5	15.3	12.2	9.7	8.7	7.6	7.1	6.6	6.6
64°	1595.7	912.0	20.9	13.2	10.7	8.7	8.2	7.1	6.1	5.1	5.1
65°	1531.0	854.4	18.9	12.2	9.7	8.2	7.6	6.6	5.1	4.1	4.1
67.5°	1275.8	681.2	15.3	10.2	7.6	7.1	6.1	5.1	3.6	2.5	2.5
70°	905.9	476.4	11.7	8.2	6.6	6.6	5.6	4.1	2.0	1.0	1.0
72.5°	479.4	247.6	9.7	6.6	5.1	5.1	4.6	2.5	1.5	1.0	0.5
75°	167.6	81.5	8.2	5.6	4.6	3.6	3.1	2.0	1.5	1.0	0.5
77.5°	50.9	27.0	7.1	5.6	4.1	3.1	3.6	3.1	3.1	2.0	1.5
80°	16.3	9.7	4.1	3.6	4.1	4.1	3.6	3.1	3.6	2.5	2.0
82.5°	6.1	3.6	1.5	2.0	2.0	2.5	2.5	2.0	1.5	0.5	0.0
85°	2.0	1.5	1.0	1.5	1.5	1.5	1.0	1.0	0.5	0.0	0.0
87.5°	1.0	1.0	1.0	1.0	1.0	1.0	0.5	0.5	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)