

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: STREETWORKS

Report Number: P214711

Luminaire Tested: **ARCH-AF16-50-D-U-T3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214711
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29465)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-AF16-50-D-U-T3-7030
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 980mA LIGHT ENGINE WITH 16 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5785.3 lumens
Efficiency: N/A
Efficacy: 109.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B1 - U0 - G2

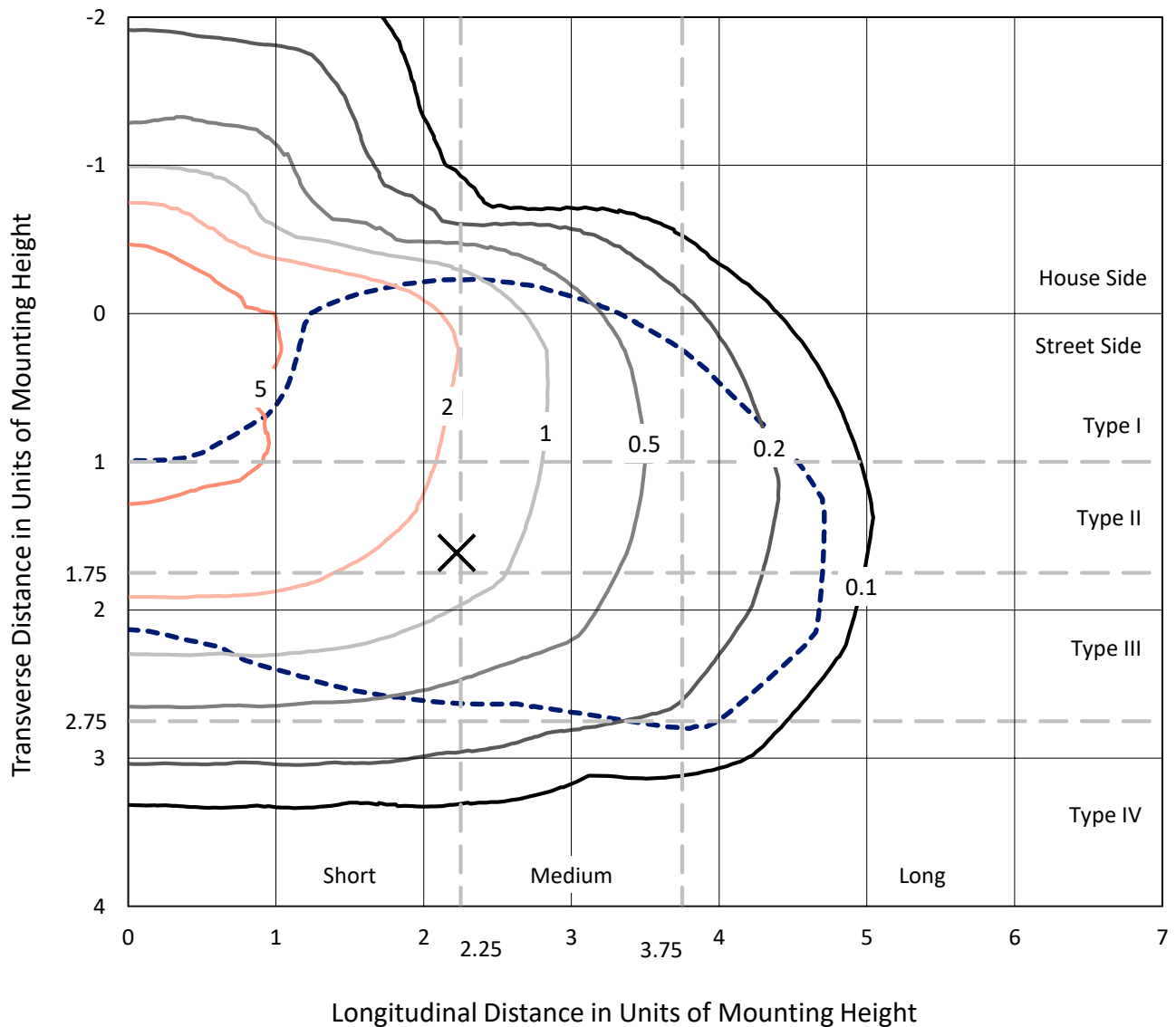
Input Watts (W): 53
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

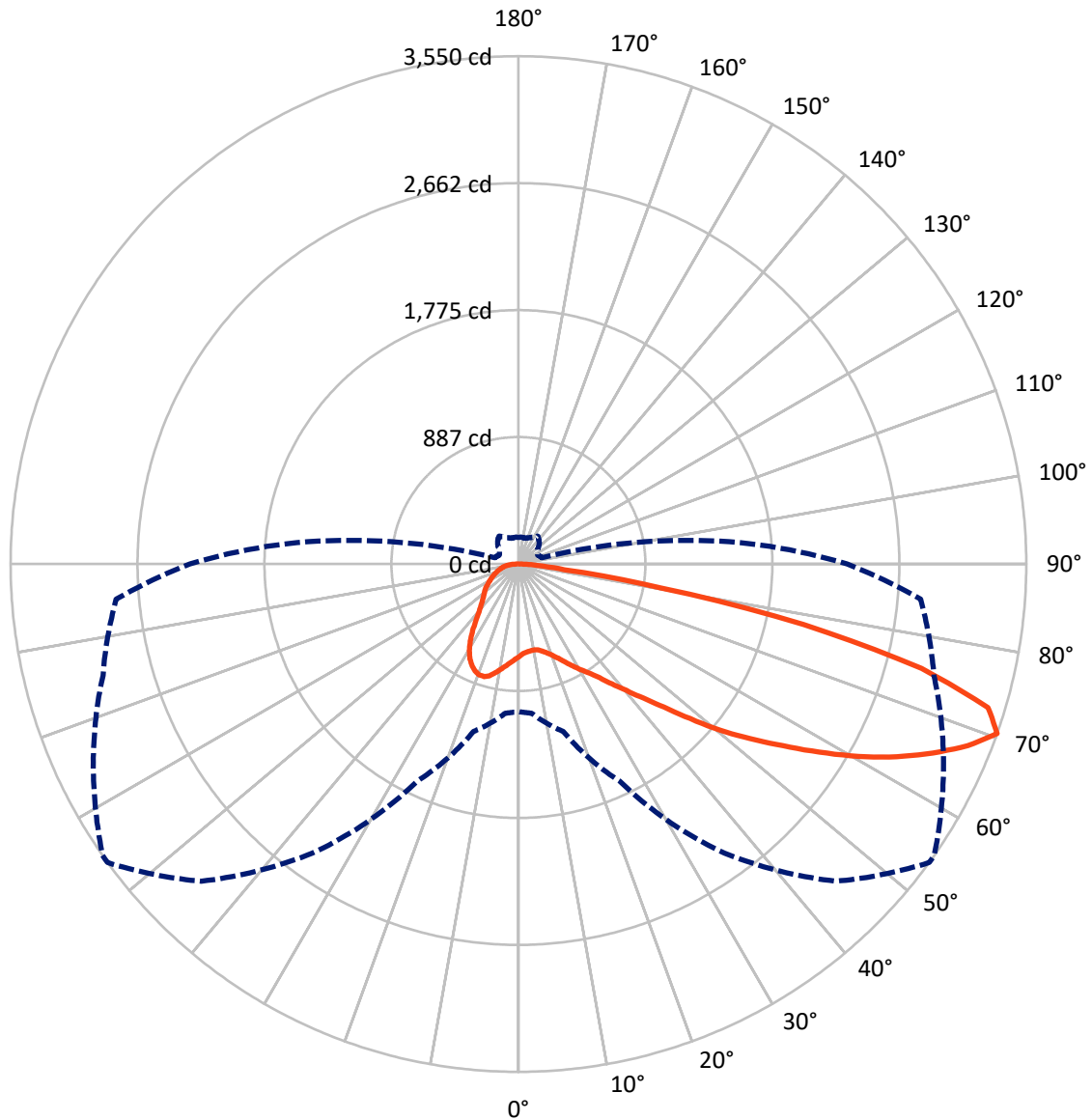
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.5 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1312.1	0.0	1312.1
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	4473.2	0.0	4473.2
	% Fixture	77.3	0.0	77.3
Total	Lumens	5785.3	0.0	5785.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.5	1.1
10°-20°	203.0	3.5
20°-30°	352.6	6.1
30°-40°	515.3	8.9
40°-50°	808.8	14.0
50°-60°	1243.7	21.5
60°-70°	1519.5	26.3
70°-80°	942.1	16.3
80°-90°	136.9	2.4
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°	5785.3	100.0
0°-180°	5785.3	100.0

Coefficient of Utilization



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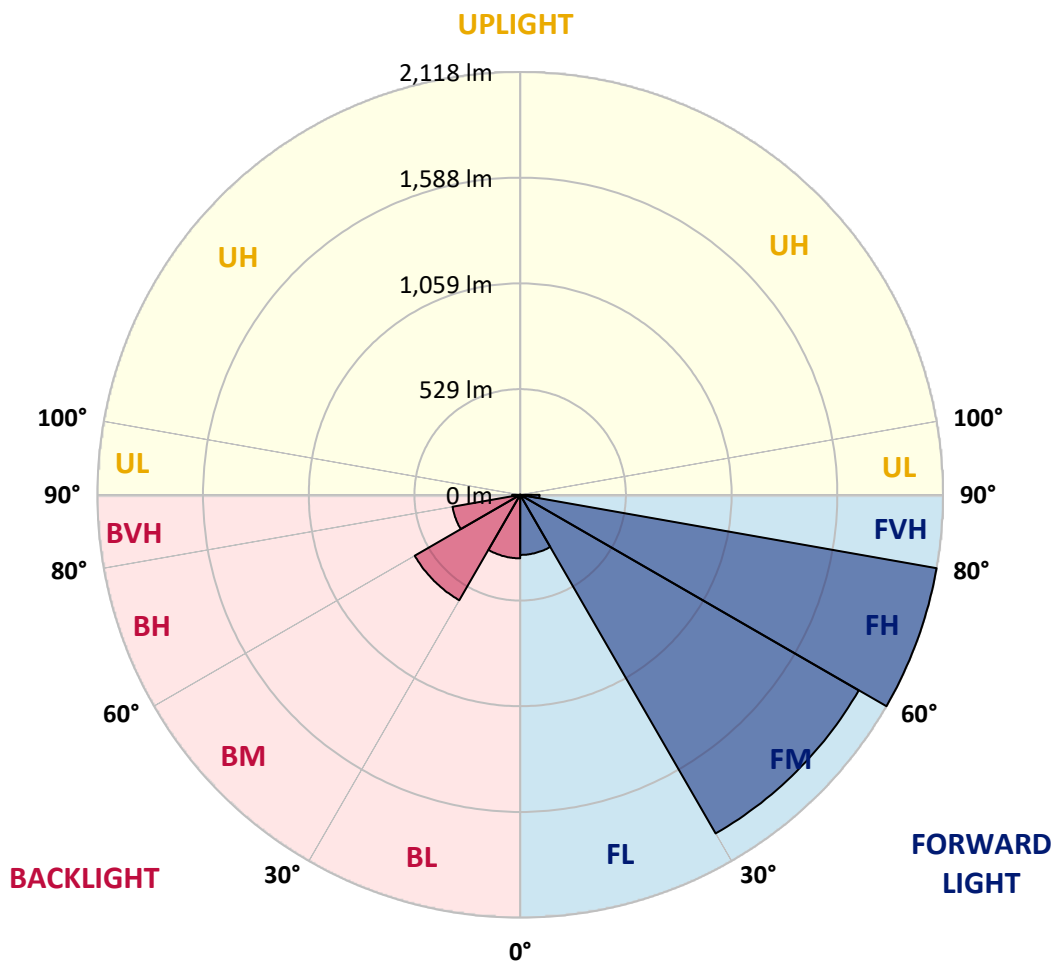
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	301.0	5.2			
FM	(30°-60°)	1958.0	33.8			
FH	(60°-80°)	2117.5	36.6			G2/5000
FVH	(80°-90°)	96.6	1.7			G1/100
BL	(0°-30°)	318.1	5.5	B1/500		
BM	(30°-60°)	609.7	10.5	B1/1000		
BH	(60°-80°)	344.1	5.9	B1/500		G1/500
BVH	(80°-90°)	40.2	0.7			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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	647.3	647.3	647.3	647.3	647.3	647.3	647.3	647.3	647.3	647.3	647.3
2.5°	621.8	619.7	619.7	622.9	624.0	627.1	627.1	628.2	631.4	636.7	643.0
5°	602.8	601.7	602.8	607.1	609.1	615.4	617.7	618.6	625.0	633.4	643.0
7.5°	583.7	582.7	584.7	591.1	597.4	607.1	612.3	613.4	622.9	634.6	647.3
10°	577.3	576.3	579.5	584.7	591.1	601.7	610.2	611.2	625.0	638.7	656.7
12.5°	585.8	584.7	588.0	593.3	599.7	607.1	616.6	617.7	635.6	653.6	672.7
15°	607.1	607.1	608.0	611.2	617.7	624.0	632.4	633.4	652.6	673.7	692.8
17.5°	639.8	637.7	637.7	636.7	641.0	644.1	654.7	655.8	675.9	694.9	714.0
20°	680.1	679.0	674.7	669.5	668.4	670.6	681.1	682.3	702.3	718.3	736.2
22.5°	728.9	729.9	720.3	708.6	703.4	706.6	716.0	717.2	732.0	745.8	761.6
25°	793.4	790.3	776.5	759.6	749.0	749.0	758.5	758.5	772.3	780.7	791.4
27.5°	854.9	848.5	835.9	811.5	794.6	797.7	807.2	807.2	819.9	823.2	828.4
30°	921.6	915.3	899.4	868.6	846.4	844.2	855.9	854.9	871.9	870.8	866.5
32.5°	1003.2	1000.0	973.5	934.3	904.6	897.2	907.8	908.9	919.5	916.3	902.6
35°	1117.6	1116.5	1092.1	1023.3	984.1	970.3	976.7	976.7	984.1	975.6	952.3
37.5°	1261.7	1263.8	1242.6	1140.8	1085.8	1062.5	1063.5	1062.5	1064.6	1055.1	1030.8
40°	1405.7	1411.1	1410.0	1287.1	1217.1	1176.9	1162.1	1160.0	1165.2	1161.0	1137.7
42.5°	1595.4	1608.1	1578.5	1467.2	1388.8	1321.0	1280.7	1275.5	1287.1	1292.4	1270.1
45°	1792.4	1788.1	1741.6	1661.1	1590.0	1503.2	1426.9	1418.4	1426.9	1442.8	1419.5
47.5°	1895.1	1892.0	1880.4	1840.0	1829.4	1729.9	1614.5	1606.9	1591.2	1613.3	1585.8
50°	2064.7	2067.8	2020.2	2016.0	2060.4	2005.4	1826.3	1809.4	1780.7	1798.7	1775.5
52.5°	2187.5	2173.7	2144.1	2181.2	2319.9	2290.3	2025.4	2018.0	1991.6	1987.3	1976.7
55°	2237.3	2237.3	2242.6	2328.5	2526.5	2487.3	2241.6	2249.0	2212.9	2183.3	2197.1
57.5°	2252.2	2258.5	2304.1	2446.0	2769.0	2640.9	2479.8	2490.4	2438.5	2379.2	2422.8
60°	2179.0	2198.1	2307.2	2512.8	2905.8	2804.0	2730.9	2734.1	2659.0	2572.1	2648.3
62.5°	1991.6	2014.8	2209.8	2540.3	2883.6	2971.5	2968.2	2975.6	2873.0	2765.0	2860.2
65°	1761.7	1785.0	1992.6	2462.9	2866.5	3091.2	3185.5	3205.5	3073.1	2928.0	2992.6
67.5°	1423.7	1454.5	1651.6	2202.3	2783.9	3189.8	3388.7	3410.0	3227.8	3012.8	2981.0
70°	1031.9	1046.6	1211.9	1673.8	2447.1	3135.6	3549.9	3548.7	3278.7	3006.4	2822.0
72.5°	496.8	508.5	651.5	1039.2	1750.0	2661.0	3433.4	3453.4	3208.7	2914.3	2458.8
75°	204.5	216.2	263.8	438.5	918.5	1758.5	2910.0	2957.6	2914.3	2615.5	1923.7
77.5°	127.1	131.3	154.7	226.7	419.4	821.0	2037.1	2101.7	2309.3	2095.4	1270.1
80°	95.4	98.6	115.5	158.9	264.9	302.9	1011.6	1093.2	1399.4	1202.4	575.2
82.5°	79.4	80.6	92.3	115.5	180.1	173.7	324.2	361.2	652.6	458.7	198.1
85°	74.2	76.3	82.6	82.6	114.4	109.2	134.5	141.0	189.7	156.8	68.9
87.5°	38.1	36.0	73.1	64.6	59.3	53.0	57.3	61.4	71.0	75.2	30.7
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°	647.3	647.3	647.3	647.3	647.3	647.3	647.3	647.3	647.3	647.3	647.3
2.5°	645.1	648.4	653.6	659.0	665.3	672.7	677.0	682.3	686.4	684.3	683.3
5°	648.4	653.6	665.3	675.9	688.6	703.4	712.9	723.6	732.0	734.1	731.0
7.5°	653.6	663.1	679.0	698.0	715.1	734.1	749.0	763.8	774.4	776.5	776.5
10°	666.4	677.0	698.0	723.6	743.6	763.8	780.7	792.3	802.0	806.2	806.2
12.5°	684.3	697.1	722.4	753.3	775.4	794.6	804.0	809.3	813.6	817.8	818.9
15°	705.5	719.3	750.1	782.9	806.2	815.7	815.7	814.6	814.6	816.7	818.9
17.5°	726.7	741.6	773.3	808.3	823.2	817.8	810.3	807.2	805.1	804.0	807.2
20°	749.0	763.8	795.5	828.4	824.2	802.0	791.4	783.9	777.6	774.4	778.6
22.5°	773.3	787.1	819.9	842.2	810.3	776.5	756.4	744.7	734.1	727.7	732.0
25°	802.0	815.7	847.6	846.4	786.0	738.4	706.6	687.5	675.9	669.5	669.5
27.5°	835.9	847.6	878.2	835.9	752.1	687.5	641.0	622.9	619.7	614.4	614.4
30°	870.8	880.3	906.8	811.5	705.5	620.8	569.9	561.5	562.4	557.2	558.4
32.5°	906.8	916.3	923.8	775.4	645.1	545.5	511.7	505.4	504.2	500.0	495.8
35°	957.6	971.5	925.9	726.7	572.1	483.0	458.7	452.4	446.0	431.1	431.1
37.5°	1035.0	1049.8	920.6	666.4	496.8	434.3	412.1	403.6	393.0	378.1	372.9
40°	1140.8	1140.8	908.9	598.5	436.5	395.1	374.0	363.4	351.7	336.8	333.7
42.5°	1265.9	1236.3	890.9	529.7	391.9	368.6	349.6	337.9	324.2	307.2	305.1
45°	1412.0	1331.6	865.5	468.1	359.1	352.8	341.1	321.0	297.6	279.7	276.5
47.5°	1554.1	1417.4	841.1	424.8	331.6	346.4	336.8	302.9	271.2	245.8	242.5
50°	1709.8	1493.7	812.6	388.8	310.4	342.2	331.6	276.5	241.6	223.6	221.4
52.5°	1865.5	1571.0	781.7	350.6	292.4	333.7	318.8	257.5	240.5	216.2	212.9
55°	2029.7	1661.1	745.8	308.2	271.2	316.8	301.9	256.3	247.9	216.2	208.6
57.5°	2189.7	1760.6	687.5	266.9	247.9	291.2	295.5	249.9	231.9	214.0	205.5
60°	2366.5	1866.5	591.1	231.9	227.8	270.1	287.2	236.2	214.0	207.6	203.4
62.5°	2508.5	1961.9	461.8	207.6	210.8	253.2	276.5	227.8	206.6	201.2	200.2
65°	2570.0	1964.1	331.6	186.4	193.8	237.3	265.9	220.3	200.2	198.1	197.0
67.5°	2505.4	1856.0	233.0	166.3	175.8	222.5	252.2	212.9	193.8	194.9	192.9
70°	2296.6	1628.2	170.6	147.3	158.9	206.6	237.3	203.4	186.4	188.6	185.4
72.5°	1921.7	1269.0	136.7	131.3	145.1	189.7	222.5	192.9	174.9	175.8	169.5
75°	1419.5	841.1	114.4	117.6	129.3	173.7	203.4	179.0	162.0	157.9	153.6
77.5°	844.2	432.2	94.3	102.7	115.5	154.7	182.3	162.0	148.3	141.0	137.6
80°	348.5	174.9	77.3	86.9	100.6	137.6	161.0	141.9	132.4	125.0	120.7
82.5°	138.8	85.8	61.4	71.0	84.7	119.7	141.0	125.0	115.5	110.2	98.6
85°	53.0	42.4	41.3	49.8	63.6	92.3	116.6	104.9	97.5	83.7	80.6
87.5°	21.2	19.1	19.1	24.4	36.0	58.2	83.7	73.1	76.3	60.4	61.4
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)