

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: P265963

Luminaire Tested: **ARCH-AF24-70-D-U-T3-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265963
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-AF24-70-D-U-T3-7027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 930mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7363.1 lumens
Efficiency: N/A
Efficacy: 99.5 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

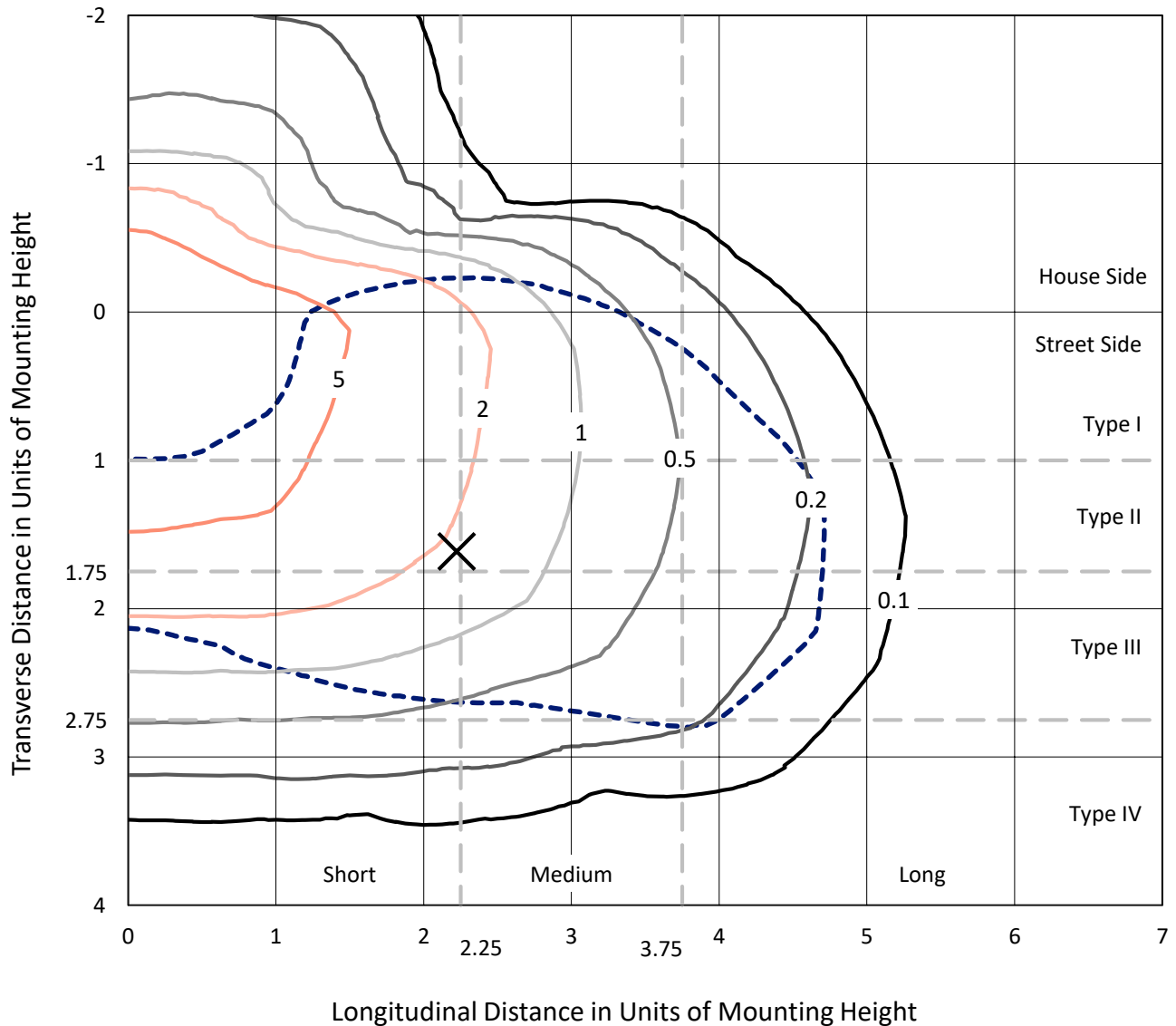
Input Watts (W): 74
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

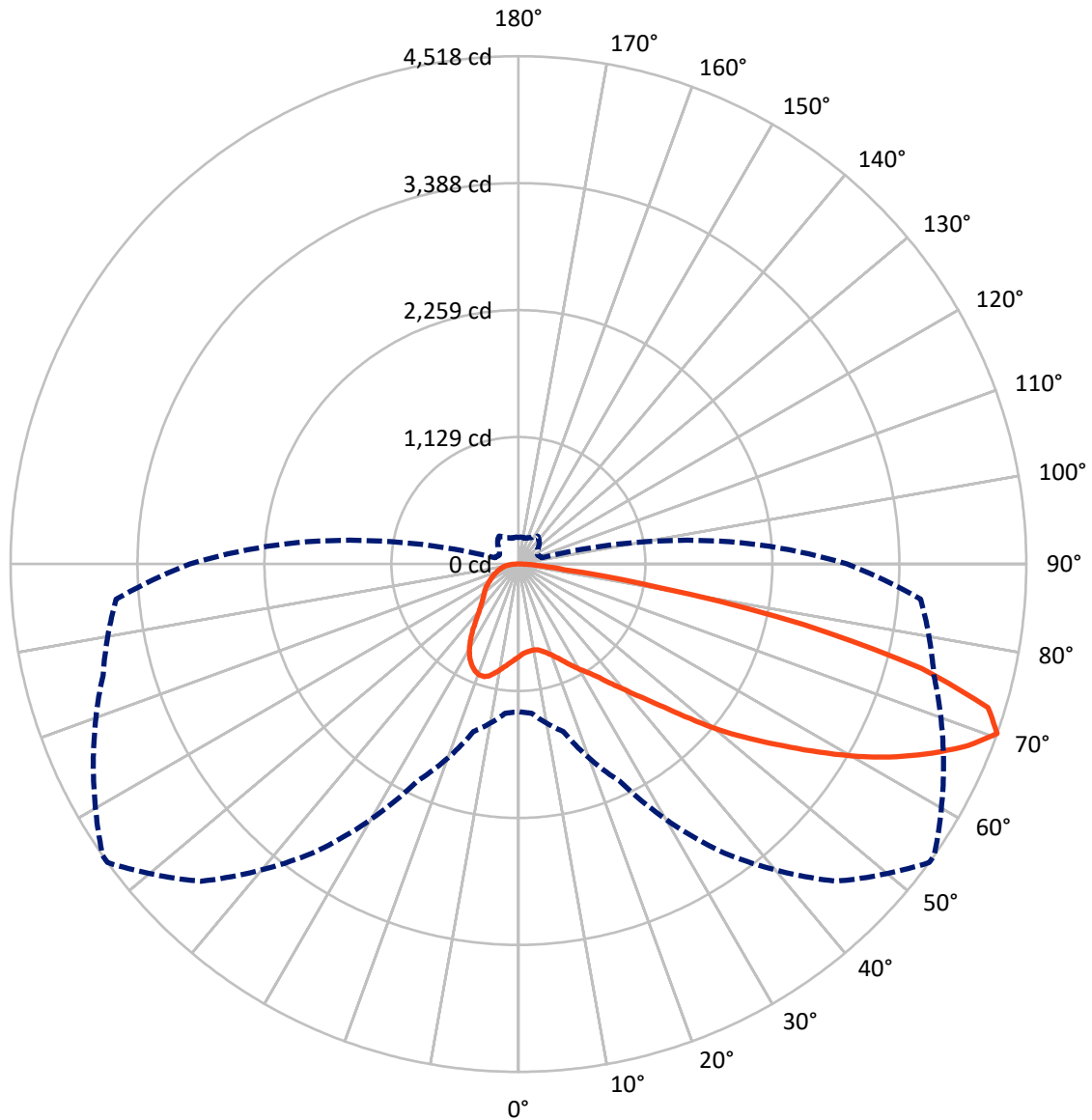


Based on 10 foot mounting height. Maximum calculated value = 9.6 fc
 Type III - Short - Non-Cutoff

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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	1669.9	0.0	1669.9
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	5693.2	0.0	5693.2
	% Fixture	77.3	0.0	77.3
Total	Lumens	7363.1	0.0	7363.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.8	1.1
10°-20°	258.3	3.5
20°-30°	448.8	6.1
30°-40°	655.8	8.9
40°-50°	1029.3	14.0
50°-60°	1582.9	21.5
60°-70°	1933.9	26.3
70°-80°	1199.0	16.3
80°-90°	174.2	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°	7363.1	100.0
0°-180°	7363.1	100.0

Coefficient of Utilization



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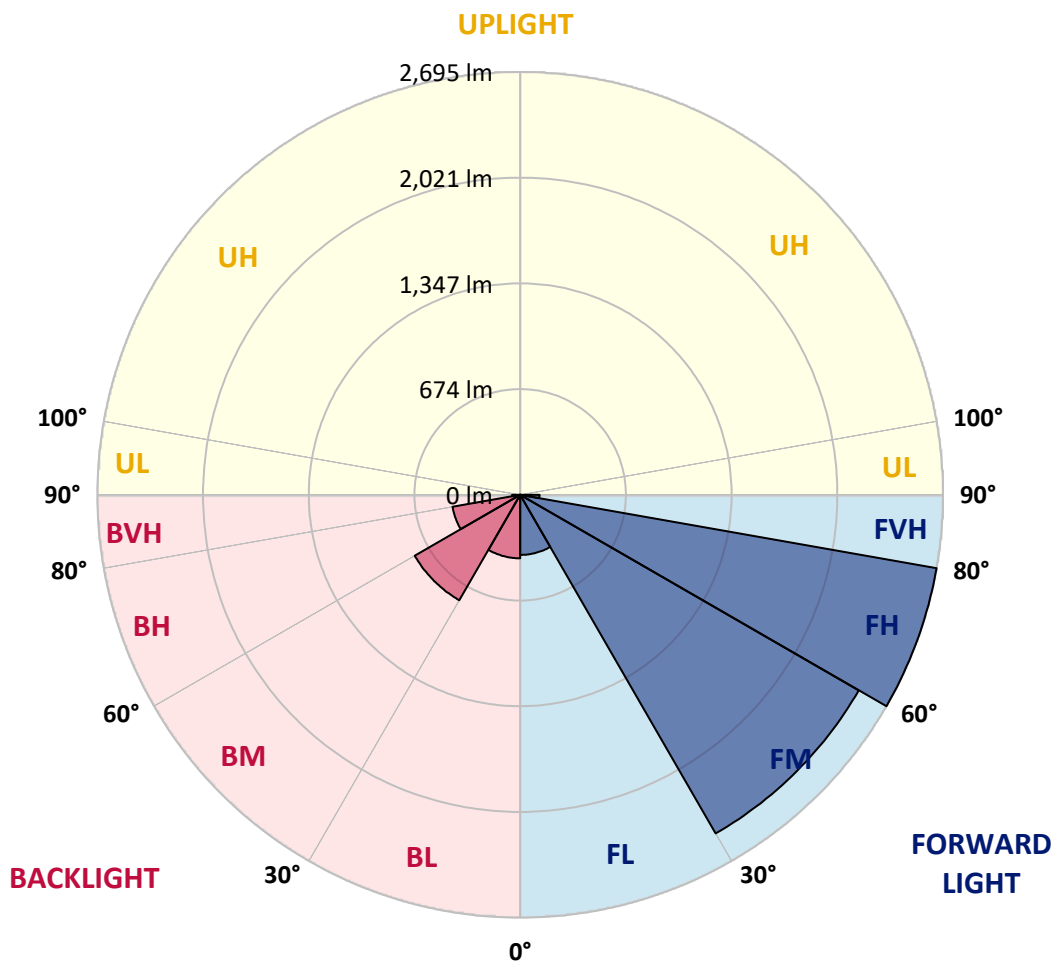
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	383.1	5.2			
FM	(30°-60°)	2492.1	33.8			
FH	(60°-80°)	2695.0	36.6			G2/5000
FVH	(80°-90°)	123.0	1.7			G2/225
BL	(0°-30°)	404.8	5.5	B1/500		
BM	(30°-60°)	776.0	10.5	B1/1000		
BH	(60°-80°)	437.9	5.9	B1/500		G1/500
BVH	(80°-90°)	51.2	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°	823.7	823.7	823.7	823.7	823.7	823.7	823.7	823.7	823.7	823.7	823.7
2.5°	791.4	788.7	788.7	792.8	794.1	798.1	798.1	799.5	803.5	810.4	818.4
5°	767.2	765.9	767.2	772.5	775.2	783.3	786.0	787.4	795.4	806.3	818.4
7.5°	742.9	741.6	744.2	752.3	760.4	772.5	779.3	780.6	792.8	807.5	823.7
10°	734.9	733.5	737.5	744.2	752.3	765.9	776.6	777.9	795.4	813.0	836.0
12.5°	745.6	744.2	748.3	755.0	763.1	772.5	784.7	786.0	809.0	831.9	856.2
15°	772.5	772.5	773.9	777.9	786.0	794.1	804.9	806.3	830.6	857.5	881.7
17.5°	814.4	811.7	811.7	810.4	815.8	819.8	833.2	834.5	860.1	884.4	908.7
20°	865.5	864.2	858.8	852.1	850.8	853.4	867.0	868.3	894.0	914.1	937.0
22.5°	927.6	928.9	916.8	902.0	895.3	899.3	911.4	912.8	931.6	949.1	969.5
25°	1009.9	1005.8	988.2	966.7	953.2	953.2	965.4	965.4	982.8	993.6	1007.1
27.5°	1088.0	1079.9	1063.8	1032.7	1011.2	1015.3	1027.3	1027.3	1043.6	1047.7	1054.3
30°	1172.9	1164.9	1144.7	1105.5	1077.2	1074.6	1089.4	1088.0	1109.5	1108.2	1102.8
32.5°	1276.9	1272.8	1239.0	1189.1	1151.4	1141.9	1155.4	1156.7	1170.3	1166.2	1148.8
35°	1422.3	1421.1	1390.0	1302.5	1252.5	1235.0	1243.1	1243.1	1252.5	1241.7	1212.1
37.5°	1605.8	1608.4	1581.5	1452.1	1382.0	1352.3	1353.7	1352.3	1355.1	1342.8	1311.9
40°	1789.2	1795.9	1794.5	1638.1	1549.1	1498.0	1479.0	1476.4	1483.1	1477.7	1448.0
42.5°	2030.4	2046.7	2008.9	1867.3	1767.5	1681.3	1630.1	1623.2	1638.1	1644.8	1616.5
45°	2281.2	2275.9	2216.5	2114.0	2023.7	1913.2	1816.2	1805.4	1816.2	1836.3	1806.6
47.5°	2411.9	2407.9	2393.2	2341.9	2328.4	2201.7	2054.8	2045.4	2025.0	2053.3	2018.3
50°	2627.7	2631.8	2571.0	2565.6	2622.3	2552.3	2324.4	2302.8	2266.5	2289.3	2259.6
52.5°	2784.1	2766.6	2728.8	2776.0	2952.6	2914.9	2577.9	2568.4	2534.7	2529.3	2515.9
55°	2847.4	2847.4	2854.3	2963.5	3215.6	3165.6	2852.8	2862.3	2816.5	2778.7	2796.2
57.5°	2866.4	2874.4	2932.4	3113.0	3524.3	3361.2	3156.3	3169.7	3103.6	3028.1	3083.4
60°	2773.3	2797.6	2936.5	3198.1	3698.2	3568.7	3475.8	3479.9	3384.2	3273.6	3370.6
62.5°	2534.7	2564.4	2812.5	3233.1	3669.9	3781.9	3777.8	3787.3	3656.5	3518.9	3640.3
65°	2242.1	2271.9	2536.1	3134.6	3648.3	3934.1	4054.2	4079.8	3911.3	3726.6	3808.9
67.5°	1812.1	1851.1	2101.9	2803.0	3543.2	4059.6	4313.0	4340.0	4108.0	3834.4	3794.0
70°	1313.2	1332.0	1542.4	2130.2	3114.5	3990.8	4517.9	4516.6	4172.8	3826.3	3591.8
72.5°	632.3	647.1	829.1	1322.7	2227.3	3386.8	4369.6	4395.2	4083.9	3709.0	3129.2
75°	260.1	275.1	335.6	558.1	1169.0	2238.0	3703.6	3764.3	3709.0	3328.8	2448.4
77.5°	161.8	167.2	196.9	288.5	534.0	1044.9	2592.7	2675.0	2939.2	2666.9	1616.5
80°	121.4	125.5	147.0	202.3	337.0	385.6	1287.6	1391.4	1781.0	1530.3	732.1
82.5°	101.1	102.4	117.3	147.0	229.2	221.2	412.5	459.8	830.6	583.8	252.2
85°	94.4	97.0	105.1	105.1	145.6	138.9	171.2	179.3	241.4	199.6	87.7
87.5°	48.6	45.9	93.1	82.3	75.5	67.5	72.9	78.2	90.3	95.7	39.0
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°	823.7	823.7	823.7	823.7	823.7	823.7	823.7	823.7	823.7	823.7	823.7
2.5°	821.1	825.2	831.9	838.6	846.7	856.2	861.6	868.3	873.6	870.9	869.6
5°	825.2	831.9	846.7	860.1	876.3	895.3	907.4	920.9	931.6	934.3	930.3
7.5°	831.9	844.0	864.2	888.6	910.1	934.3	953.2	972.1	985.6	988.2	988.2
10°	848.0	861.6	888.6	920.9	946.5	972.1	993.6	1008.4	1020.7	1026.0	1026.0
12.5°	870.9	887.2	919.5	958.6	986.9	1011.2	1023.3	1030.0	1035.4	1040.9	1042.3
15°	897.9	915.5	954.5	996.4	1026.0	1038.1	1038.1	1036.9	1036.9	1039.5	1042.3
17.5°	924.9	943.8	984.3	1028.6	1047.7	1040.9	1031.4	1027.3	1024.6	1023.3	1027.3
20°	953.2	972.1	1012.5	1054.3	1049.0	1020.7	1007.1	997.7	989.7	985.6	991.0
22.5°	984.3	1001.7	1043.6	1071.9	1031.4	988.2	962.7	947.8	934.3	926.2	931.6
25°	1020.7	1038.1	1078.5	1077.2	1000.4	939.7	899.3	874.9	860.1	852.1	852.1
27.5°	1063.8	1078.5	1117.8	1063.8	957.2	874.9	815.8	792.8	788.7	782.0	782.0
30°	1108.2	1120.4	1154.1	1032.7	897.9	790.1	725.3	714.6	715.9	709.2	710.5
32.5°	1154.1	1166.2	1175.7	986.9	821.1	694.3	651.2	643.0	641.7	636.4	631.0
35°	1218.8	1236.3	1178.3	924.9	728.0	614.8	583.8	575.8	567.5	548.8	548.8
37.5°	1317.3	1336.0	1171.6	848.0	632.3	552.7	524.5	513.7	500.1	481.3	474.6
40°	1452.1	1452.1	1156.7	761.8	555.5	503.0	475.9	462.4	447.6	428.8	424.7
42.5°	1611.2	1573.4	1133.9	674.1	498.9	469.2	444.9	430.1	412.5	391.0	388.2
45°	1797.1	1694.7	1101.5	595.9	457.1	449.0	434.2	408.5	378.8	356.0	351.9
47.5°	1977.9	1803.9	1070.5	540.6	422.1	440.9	428.8	385.6	345.2	312.8	308.7
50°	2176.1	1901.1	1034.0	494.7	395.1	435.5	422.1	351.9	307.4	284.5	281.8
52.5°	2374.3	1999.4	995.1	446.3	372.1	424.7	405.9	327.6	306.1	275.1	271.0
55°	2583.3	2114.0	949.1	392.3	345.2	403.1	384.2	326.3	315.5	275.1	265.5
57.5°	2786.8	2240.8	874.9	339.7	315.5	370.8	376.2	318.2	295.3	272.4	261.5
60°	3011.9	2375.6	752.3	295.3	289.9	343.8	365.4	300.7	272.4	264.2	258.8
62.5°	3192.7	2497.0	587.9	264.2	268.4	322.2	351.9	289.9	262.9	256.1	254.8
65°	3270.9	2499.7	422.1	237.3	246.8	302.0	338.4	280.5	254.8	252.2	250.7
67.5°	3188.7	2362.2	296.6	211.7	223.8	283.1	320.9	271.0	246.8	248.1	245.3
70°	2923.1	2072.3	217.1	187.3	202.3	262.9	302.0	258.8	237.3	239.9	236.0
72.5°	2445.7	1615.2	173.9	167.2	184.7	241.4	283.1	245.3	222.5	223.8	215.8
75°	1806.6	1070.5	145.6	149.7	164.5	221.2	258.8	227.9	206.3	201.0	195.6
77.5°	1074.6	550.1	120.1	130.8	147.0	196.9	231.9	206.3	188.7	179.3	175.3
80°	443.6	222.5	98.5	110.5	128.1	175.3	205.0	180.6	168.5	159.1	153.7
82.5°	176.6	109.2	78.2	90.3	107.8	152.4	179.3	159.1	147.0	140.2	125.5
85°	67.5	53.9	52.6	63.4	80.8	117.3	148.3	133.5	124.1	106.4	102.4
87.5°	26.9	24.3	24.3	31.0	45.9	74.2	106.4	93.1	97.0	76.8	78.2
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)