

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: P214708

Luminaire Tested: **ARCH-AF16-20-D-U-T3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214708
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-AF16-20-D-U-T3-7030
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 420mA LIGHT ENGINE WITH 16 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2884.4 lumens
Efficiency: N/A
Efficacy: 120.2 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 - G1

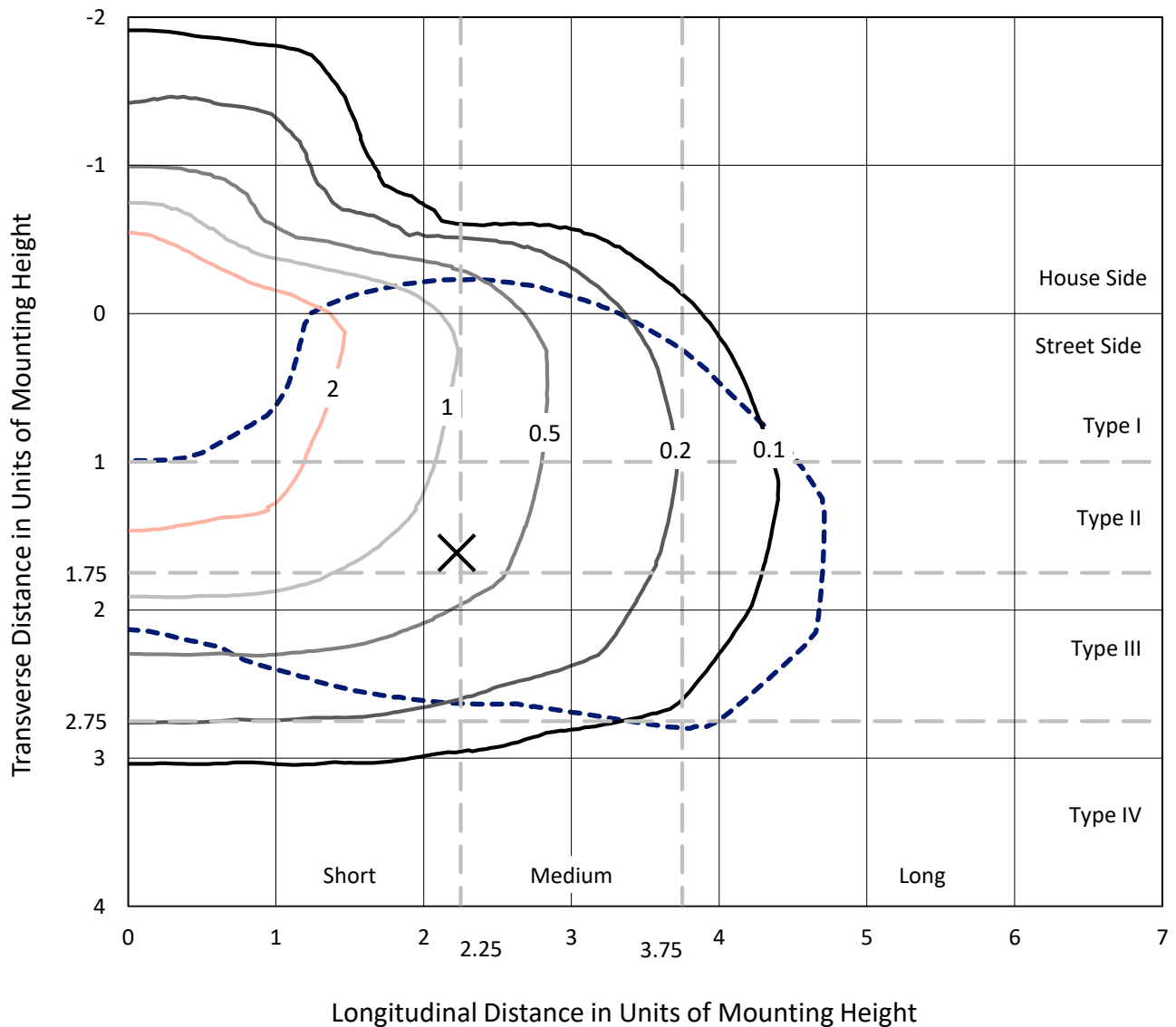
Input Watts (W): 24
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

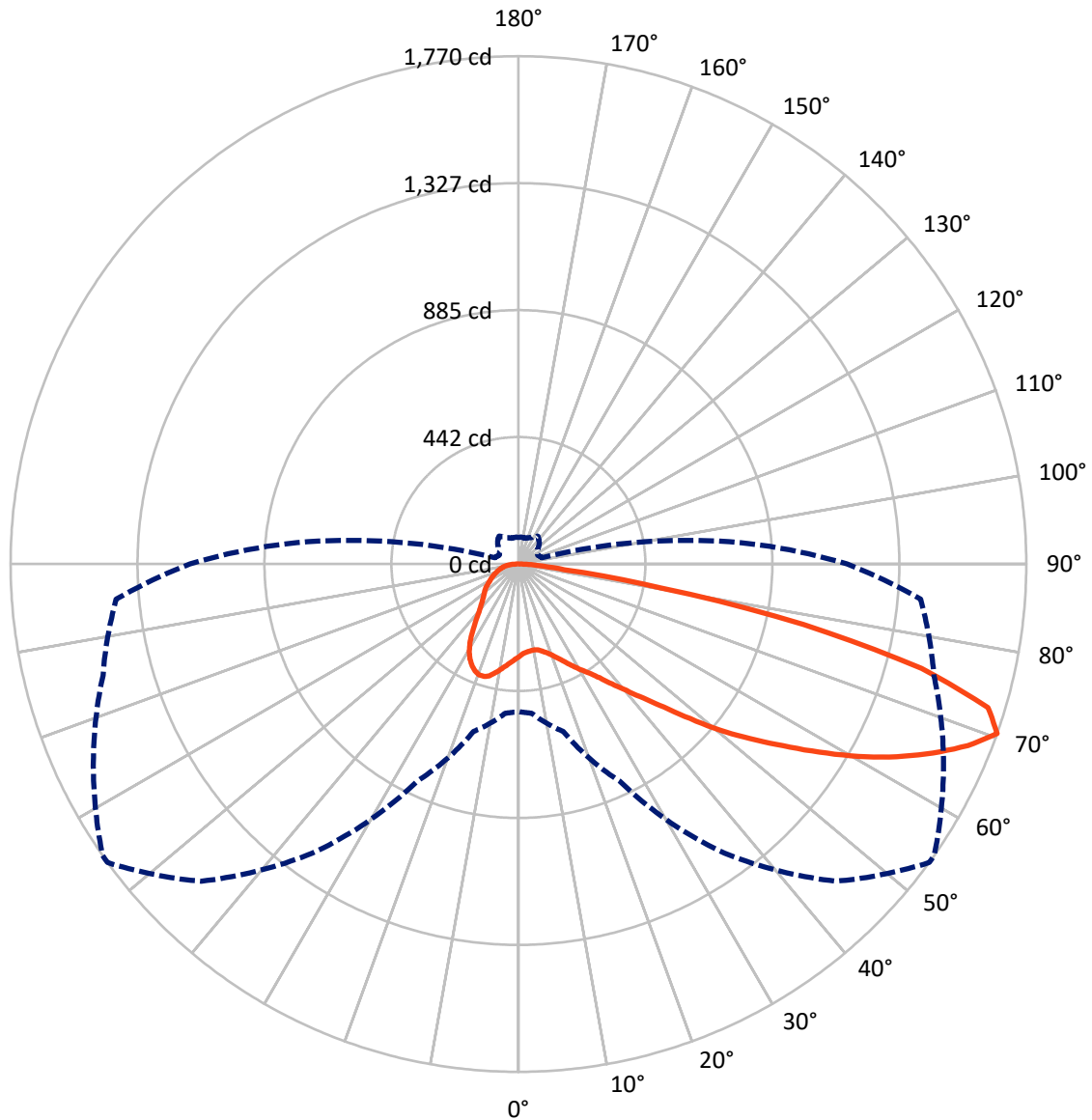
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.7 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	654.2	0.0	654.2
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	2230.2	0.0	2230.2
	% Fixture	77.3	0.0	77.3
Total	Lumens	2884.4	0.0	2884.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.7	1.1
10°-20°	101.2	3.5
20°-30°	175.8	6.1
30°-40°	256.9	8.9
40°-50°	403.2	14.0
50°-60°	620.1	21.5
60°-70°	757.6	26.3
70°-80°	469.7	16.3
80°-90°	68.2	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°	2884.4	100.0
0°-180°	2884.4	100.0



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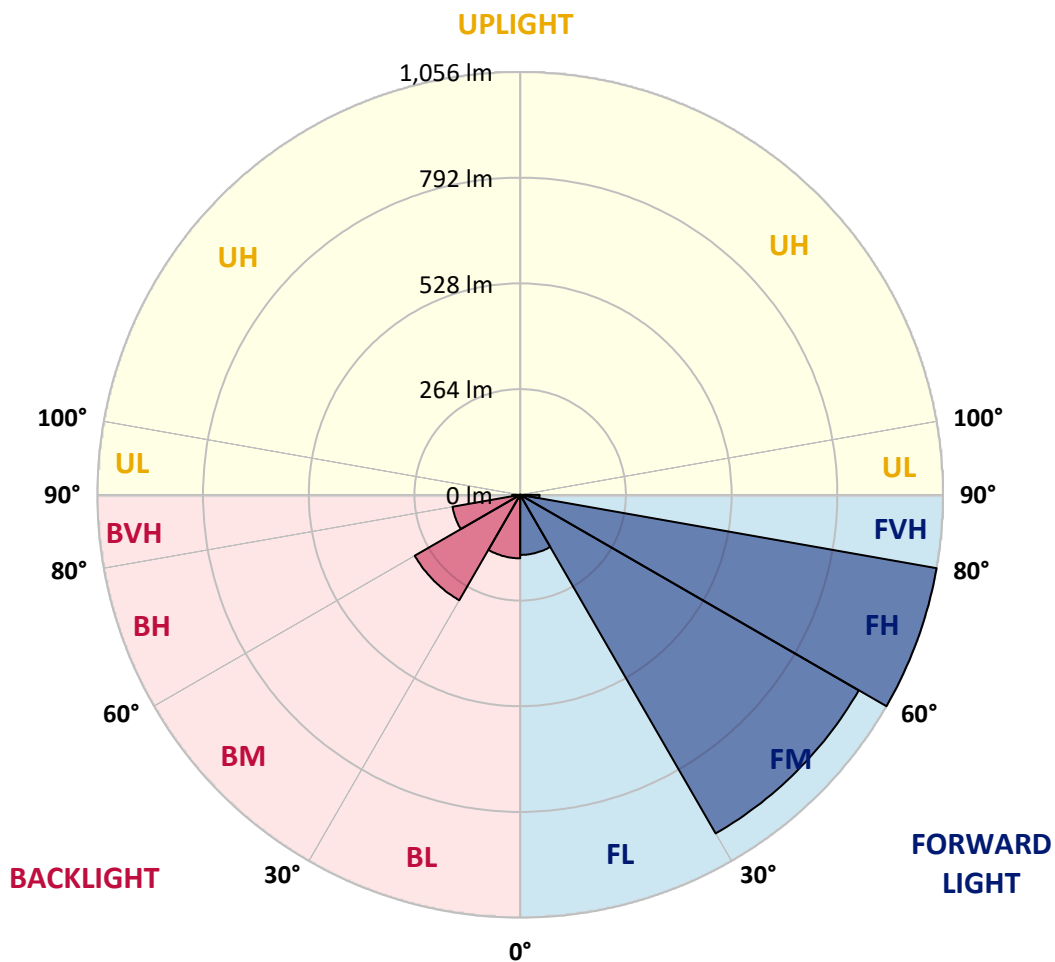
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	150.1	5.2			
FM	(30°-60°)	976.2	33.8			
FH	(60°-80°)	1055.7	36.6			G1/1800
FVH	(80°-90°)	48.2	1.7			G1/100
BL	(0°-30°)	158.6	5.5	B1/500		
BM	(30°-60°)	304.0	10.5	B1/1000		
BH	(60°-80°)	171.5	5.9	B1/500		G1/500
BVH	(80°-90°)	20.0	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-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	322.8	322.8	322.8	322.8	322.8	322.8	322.8	322.8	322.8	322.8	322.8
2.5°	310.1	308.9	308.9	310.6	311.1	312.7	312.7	313.2	314.7	317.4	320.5
5°	300.6	300.0	300.6	302.6	303.7	306.9	307.9	308.4	311.6	315.9	320.5
7.5°	291.0	290.5	291.5	294.7	297.8	302.6	305.3	305.8	310.6	316.5	322.8
10°	287.9	287.4	288.9	291.5	294.7	300.0	304.2	304.8	311.6	318.5	327.4
12.5°	292.0	291.5	293.2	295.8	299.0	302.6	307.3	307.9	316.9	325.9	335.4
15°	302.6	302.6	303.2	304.8	307.9	311.1	315.3	315.9	325.4	335.9	345.4
17.5°	319.0	318.0	318.0	317.4	319.6	321.1	326.3	326.9	336.9	346.5	355.9
20°	339.0	338.6	336.4	333.8	333.2	334.4	339.6	340.2	350.1	358.2	367.1
22.5°	363.4	364.0	359.1	353.4	350.7	352.3	357.1	357.6	364.9	371.8	379.7
25°	395.6	394.0	387.1	378.7	373.4	373.4	378.1	378.1	385.0	389.3	394.5
27.5°	426.2	423.1	416.8	404.6	396.2	397.7	402.5	402.5	408.8	410.4	413.0
30°	459.6	456.3	448.4	433.1	422.0	420.9	426.7	426.2	434.7	434.2	432.0
32.5°	500.2	498.6	485.4	465.9	451.0	447.3	452.7	453.2	458.5	456.8	450.0
35°	557.2	556.6	544.5	510.2	490.7	483.8	487.0	487.0	490.7	486.4	474.8
37.5°	629.0	630.1	619.5	568.8	541.4	529.8	530.2	529.8	530.8	526.1	513.9
40°	700.9	703.5	703.0	641.7	606.8	586.8	579.4	578.3	580.9	578.8	567.3
42.5°	795.4	801.8	787.0	731.5	692.3	658.7	638.5	635.9	641.7	644.4	633.2
45°	893.6	891.5	868.3	828.1	792.7	749.5	711.5	707.2	711.5	719.4	707.8
47.5°	944.9	943.4	937.6	917.4	912.1	862.5	804.9	801.2	793.3	804.3	790.7
50°	1029.4	1031.0	1007.3	1005.0	1027.2	999.8	910.5	902.2	887.8	896.8	885.2
52.5°	1090.6	1083.9	1069.0	1087.4	1156.7	1141.9	1009.9	1006.2	992.9	990.9	985.5
55°	1115.5	1115.5	1118.2	1160.9	1259.6	1240.1	1117.6	1121.3	1103.3	1088.5	1095.5
57.5°	1122.8	1126.0	1148.8	1219.6	1380.6	1316.7	1236.5	1241.7	1215.8	1186.2	1208.0
60°	1086.5	1096.0	1150.4	1252.7	1448.8	1398.1	1361.6	1363.2	1325.8	1282.3	1320.4
62.5°	992.9	1004.5	1101.8	1266.6	1437.7	1481.5	1479.9	1483.6	1432.4	1378.6	1426.1
65°	878.3	889.9	993.5	1228.0	1429.2	1541.2	1588.2	1598.3	1532.3	1459.8	1492.1
67.5°	709.8	725.2	823.4	1098.0	1388.0	1590.3	1689.5	1700.2	1609.3	1502.1	1486.3
70°	514.4	521.8	604.2	834.5	1220.1	1563.4	1769.9	1769.4	1634.6	1498.9	1407.0
72.5°	247.7	253.5	324.8	518.1	872.6	1326.7	1711.8	1721.8	1599.8	1453.0	1225.9
75°	101.9	107.7	131.5	218.6	457.9	876.8	1450.9	1474.7	1453.0	1304.0	959.2
77.5°	63.4	65.4	77.1	113.0	209.1	409.2	1015.7	1047.9	1151.4	1044.7	633.2
80°	47.5	49.1	57.6	79.2	132.1	151.1	504.4	545.1	697.7	599.5	286.8
82.5°	39.7	40.1	46.0	57.6	89.8	86.7	161.6	180.1	325.4	228.7	98.8
85°	36.9	38.0	41.2	41.2	57.1	54.4	67.0	70.3	94.5	78.1	34.3
87.5°	19.0	17.9	36.5	32.2	29.6	26.4	28.5	30.6	35.4	37.4	15.3
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°	322.8	322.8	322.8	322.8	322.8	322.8	322.8	322.8	322.8	322.8	322.8
2.5°	321.7	323.2	325.9	328.6	331.7	335.4	337.5	340.2	342.2	341.2	340.7
5°	323.2	325.9	331.7	336.9	343.3	350.7	355.4	360.8	364.9	366.0	364.5
7.5°	325.9	330.6	338.6	348.1	356.5	366.0	373.4	380.8	386.1	387.1	387.1
10°	332.2	337.5	348.1	360.8	370.8	380.8	389.3	395.1	399.8	402.0	402.0
12.5°	341.2	347.6	360.2	375.6	386.7	396.2	400.9	403.5	405.7	407.7	408.3
15°	351.9	358.6	374.0	390.3	402.0	406.7	406.7	406.1	406.1	407.2	408.3
17.5°	362.3	369.8	385.5	402.9	410.4	407.7	404.0	402.5	401.4	400.9	402.5
20°	373.4	380.8	396.6	413.0	411.0	399.8	394.5	390.8	387.7	386.1	388.2
22.5°	385.5	392.5	408.8	419.9	404.0	387.1	377.2	371.3	366.0	362.8	364.9
25°	399.8	406.7	422.5	422.0	391.9	368.1	352.3	342.7	336.9	333.8	333.8
27.5°	416.8	422.5	437.8	416.8	375.0	342.7	319.6	310.6	308.9	306.4	306.4
30°	434.2	438.9	452.2	404.6	351.9	309.5	284.2	279.9	280.5	277.8	278.4
32.5°	452.2	456.8	460.5	386.7	321.7	272.0	255.1	252.0	251.4	249.3	247.2
35°	477.5	484.3	461.6	362.3	285.1	240.8	228.7	225.5	222.4	214.9	214.9
37.5°	516.0	523.5	459.0	332.2	247.7	216.6	205.4	201.2	195.9	188.6	186.0
40°	568.8	568.8	453.2	298.4	217.7	197.0	186.4	181.2	175.4	167.9	166.4
42.5°	631.2	616.3	444.1	264.1	195.5	183.8	174.3	168.5	161.6	153.2	152.1
45°	704.0	663.9	431.5	233.5	179.0	175.9	170.1	160.1	148.4	139.5	137.8
47.5°	774.8	706.7	419.3	211.8	165.3	172.7	167.9	151.1	135.3	122.6	121.0
50°	852.4	744.7	405.2	193.8	154.7	170.6	165.3	137.8	120.4	111.5	110.4
52.5°	930.2	783.3	389.8	174.9	145.8	166.4	159.0	128.4	119.8	107.7	106.2
55°	1012.0	828.1	371.8	153.7	135.3	157.9	150.6	127.9	123.6	107.7	104.1
57.5°	1091.7	877.8	342.7	133.1	123.6	145.2	147.4	124.7	115.7	106.6	102.4
60°	1179.9	930.7	294.7	115.7	113.5	134.7	143.1	117.8	106.6	103.5	101.4
62.5°	1250.7	978.2	230.3	103.5	105.1	126.2	137.8	113.5	103.0	100.3	99.9
65°	1281.3	979.2	165.3	93.0	96.7	118.3	132.5	109.8	99.9	98.8	98.3
67.5°	1249.2	925.3	116.2	82.9	87.6	110.9	125.7	106.2	96.7	97.1	96.1
70°	1145.0	811.8	85.0	73.4	79.2	103.0	118.3	101.4	93.0	94.0	92.5
72.5°	958.1	632.7	68.2	65.4	72.3	94.5	110.9	96.1	87.2	87.6	84.4
75°	707.8	419.3	57.1	58.7	64.5	86.7	101.4	89.3	80.9	78.6	76.6
77.5°	420.9	215.5	47.0	51.3	57.6	77.1	90.8	80.9	74.0	70.3	68.7
80°	173.7	87.2	38.6	43.2	50.1	68.7	80.3	70.8	66.0	62.3	60.2
82.5°	69.2	42.8	30.6	35.4	42.3	59.6	70.3	62.3	57.6	54.9	49.1
85°	26.4	21.1	20.6	24.8	31.6	46.0	58.1	52.3	48.6	41.7	40.1
87.5°	10.6	9.5	9.5	12.1	17.9	29.1	41.7	36.5	38.0	30.1	30.6
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)