

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: P265869

Luminaire Tested: **ARCH-AF16-20-D-U-T2R-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265869
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29635)
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-T2R-7027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 420mA LIGHT ENGINE WITH 16 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2602.9 lumens
Efficiency: N/A
Efficacy: 108.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G1

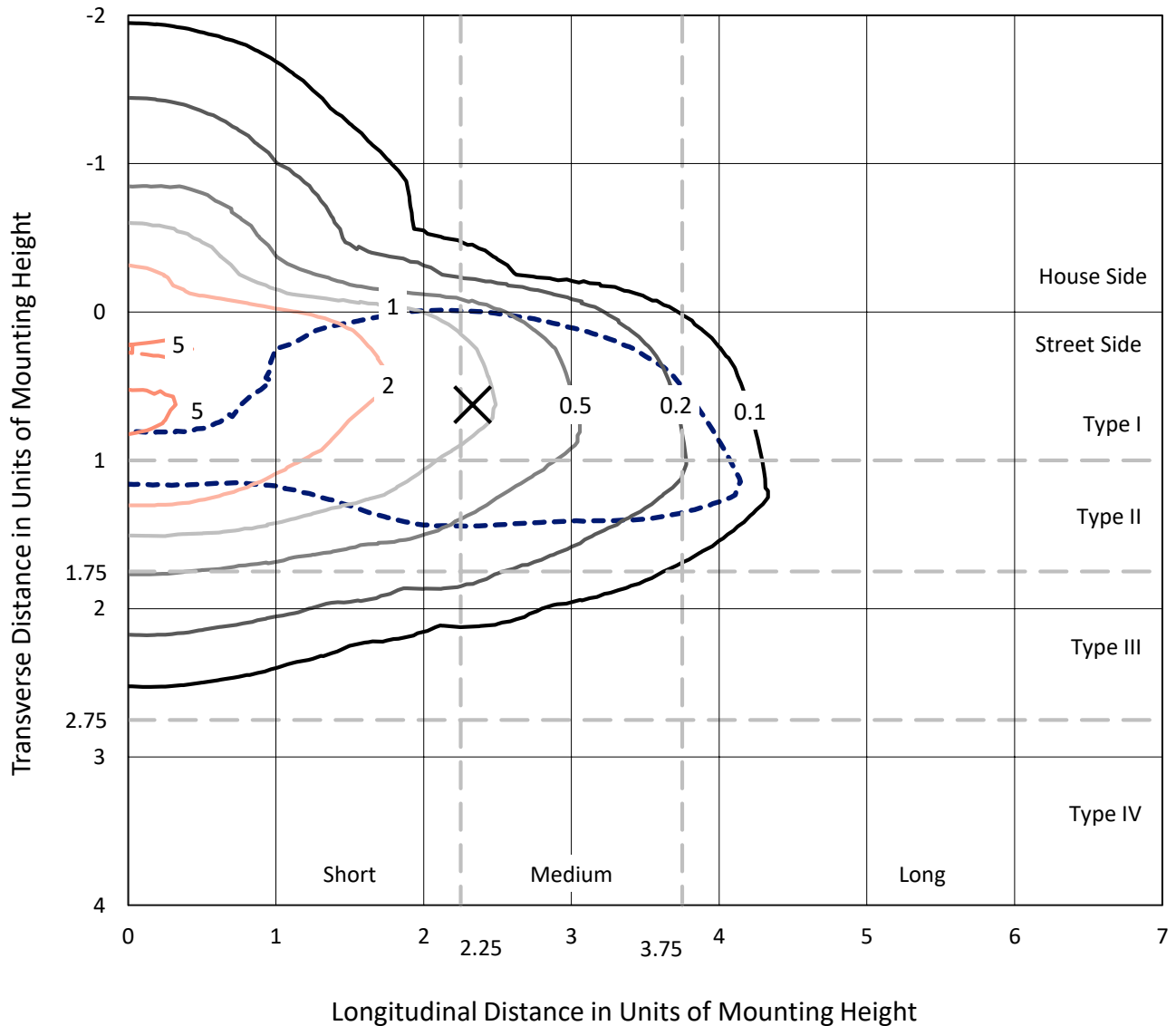
Input Watts (W): 24
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

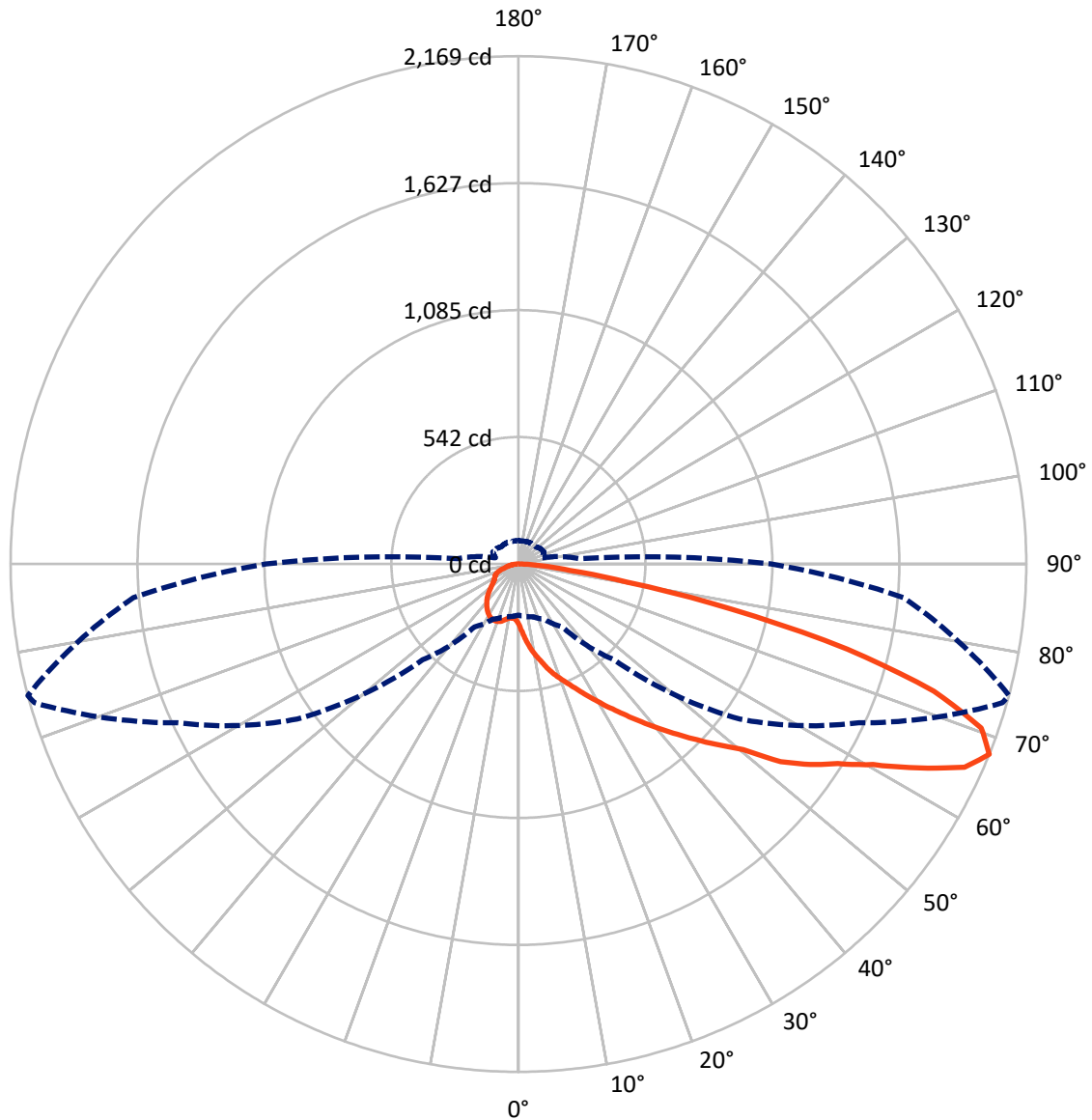
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.4 fc
 Type II - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	444.4	0.0	444.4
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	2158.4	0.0	2158.4
	% Fixture	82.9	0.0	82.9
Total	Lumens	2602.9	0.0	2602.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.3	1.2
10°-20°	109.5	4.2
20°-30°	199.7	7.7
30°-40°	327.8	12.6
40°-50°	474.1	18.2
50°-60°	558.7	21.5
60°-70°	542.9	20.9
70°-80°	301.8	11.6
80°-90°	58.0	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°	2602.9	100.0
0°-180°	2602.9	100.0



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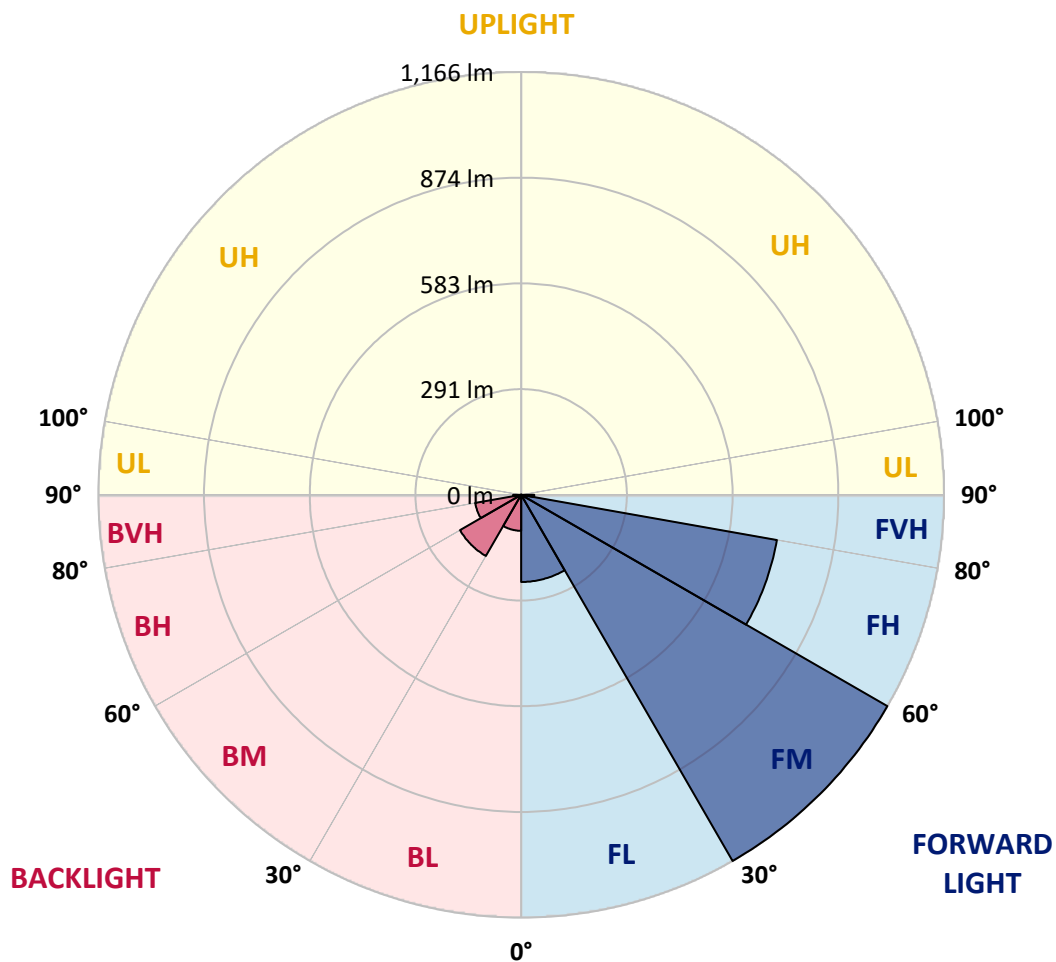
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	240.3	9.2			
FM (30°-60°)	1166.0	44.8			
FH (60°-80°)	716.0	27.5			G1/1800
FVH (80°-90°)	36.1	1.4			G1/100
BL (0°-30°)	99.2	3.8	B0/110		
BM (30°-60°)	194.6	7.5	B0/220		
BH (60°-80°)	128.7	4.9	B1/500		G1/500
BVH (80°-90°)	21.9	0.8			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 II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	258.0	258.0	258.0	258.0	258.0	258.0	258.0	258.0	258.0	258.0	258.0
2.5°	365.7	366.8	364.6	359.7	352.7	339.5	328.2	307.9	290.1	287.8	268.9
5°	429.8	430.9	428.2	422.3	414.7	400.5	384.7	358.7	329.8	324.3	284.0
7.5°	473.9	474.5	471.3	465.2	459.3	445.1	429.3	399.9	364.6	360.2	303.6
10°	511.5	512.6	508.3	504.4	497.9	483.7	467.4	436.3	399.9	393.9	323.7
12.5°	546.3	547.3	544.7	541.4	539.3	526.1	508.3	471.3	432.1	425.4	347.7
15°	569.7	570.9	571.3	575.8	578.4	569.2	551.2	511.0	466.8	460.9	376.0
17.5°	563.1	565.9	574.0	589.8	606.7	607.3	592.5	550.1	501.2	494.6	404.9
20°	544.2	546.3	556.1	580.0	613.3	632.2	631.1	589.8	533.2	526.1	431.5
22.5°	560.0	562.7	562.7	577.3	609.9	645.3	659.4	629.1	565.4	558.8	458.1
25°	627.3	629.1	617.6	611.6	623.6	656.2	682.9	671.5	604.5	597.0	487.1
27.5°	721.5	718.9	704.7	680.7	667.7	676.3	703.6	711.7	649.7	640.4	517.0
30°	815.1	813.4	797.2	765.0	735.7	717.1	726.4	747.7	698.7	687.8	545.8
32.5°	902.7	900.0	882.0	844.4	811.3	777.0	759.1	780.3	751.0	738.3	577.9
35°	983.3	976.2	958.2	919.1	884.8	852.1	808.0	811.3	807.4	794.5	613.3
37.5°	1048.5	1043.1	1023.4	987.1	950.5	919.5	873.3	846.7	868.4	855.9	654.1
40°	1106.3	1100.2	1080.1	1043.7	1010.0	980.5	944.1	889.6	937.0	922.9	699.8
42.5°	1149.8	1145.3	1129.1	1093.1	1060.4	1033.9	1016.0	944.1	1008.3	994.7	749.8
45°	1173.1	1168.9	1160.2	1131.2	1101.3	1080.7	1082.3	1008.8	1082.8	1071.4	809.2
47.5°	1144.4	1147.6	1155.2	1149.8	1131.2	1121.4	1141.6	1075.8	1166.1	1155.2	873.3
50°	1067.0	1070.3	1100.9	1138.3	1144.9	1156.8	1194.9	1153.1	1254.3	1245.5	952.8
52.5°	877.1	895.2	979.4	1069.3	1130.7	1180.3	1254.3	1267.9	1402.9	1402.9	1093.1
55°	662.8	678.5	774.9	931.5	1075.8	1182.3	1297.8	1345.7	1510.1	1512.1	1166.5
57.5°	537.0	546.9	594.1	754.8	960.4	1155.2	1349.4	1412.6	1599.3	1609.0	1261.3
60°	435.9	441.2	472.2	583.9	801.0	1081.7	1386.4	1508.3	1726.5	1740.1	1382.1
62.5°	350.3	355.9	376.5	443.5	628.5	944.1	1379.9	1608.0	1896.3	1918.6	1540.5
65°	279.7	285.8	299.2	340.6	465.9	773.3	1313.1	1659.1	2072.1	2093.8	1645.4
67.5°	218.2	223.7	232.9	260.1	328.2	578.4	1154.6	1605.2	2151.0	2169.4	1650.9
70°	164.8	167.7	175.2	192.6	234.5	384.1	903.9	1424.5	2080.3	2097.2	1542.1
72.5°	127.9	127.3	131.7	140.3	163.9	264.5	599.1	1158.5	1839.2	1856.5	1315.7
75°	104.5	103.9	106.7	109.4	118.7	177.3	353.8	872.3	1484.4	1451.2	987.1
77.5°	88.2	87.7	90.3	90.9	94.7	122.3	201.3	574.0	990.3	933.2	556.1
80°	74.6	74.0	77.3	78.3	81.0	89.8	115.9	310.8	497.3	471.3	265.4
82.5°	56.1	58.2	64.1	67.0	70.2	66.4	71.9	137.1	230.8	220.4	115.3
85°	27.2	32.1	48.4	53.9	57.8	42.0	49.0	64.8	103.9	99.1	46.8
87.5°	9.3	8.2	28.8	34.2	37.5	19.0	27.2	35.9	42.9	39.2	14.7
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°	258.0	258.0	258.0	258.0	258.0	258.0	258.0	258.0	258.0	258.0	258.0
2.5°	260.7	252.5	240.4	231.3	225.2	220.4	218.2	217.7	216.6	216.0	216.0
5°	266.1	251.3	232.9	223.0	220.4	218.2	219.2	219.8	219.8	219.8	219.8
7.5°	274.3	253.6	231.3	224.8	224.1	224.1	227.5	229.1	230.1	230.1	230.1
10°	285.1	257.4	234.0	228.4	230.1	231.3	235.0	237.2	238.3	238.9	239.4
12.5°	299.9	265.4	239.4	235.0	237.2	237.8	240.4	241.6	242.7	243.3	243.3
15°	319.3	277.4	248.1	242.7	243.3	242.7	242.7	241.6	241.0	241.0	242.2
17.5°	339.5	289.0	255.7	248.1	246.0	241.6	238.3	235.6	234.0	232.9	233.4
20°	359.7	299.2	260.1	249.2	243.3	236.2	230.1	226.4	224.1	222.1	223.0
22.5°	379.9	309.0	261.8	246.0	237.2	226.9	220.4	214.3	209.5	206.3	206.8
25°	402.1	319.9	261.8	242.2	229.1	218.2	210.1	200.2	193.1	190.4	191.5
27.5°	424.4	329.1	259.0	235.0	219.8	208.9	197.0	185.6	181.2	179.7	180.1
30°	446.7	336.2	253.1	226.4	210.1	198.0	182.3	174.7	169.2	164.8	165.4
32.5°	469.0	341.1	244.9	215.5	199.8	184.4	171.3	162.8	152.9	147.4	148.0
35°	494.6	344.9	235.0	204.6	188.3	172.5	162.8	148.6	138.2	133.8	132.8
37.5°	521.2	347.7	224.8	192.6	176.8	163.9	154.0	136.6	126.8	120.8	120.3
40°	550.1	348.8	212.2	180.1	165.9	158.3	142.7	129.4	112.6	108.9	108.9
42.5°	584.3	348.3	199.8	167.7	154.0	145.9	134.3	128.4	113.7	110.0	107.7
45°	623.6	348.3	186.0	152.9	142.0	130.1	125.1	121.4	111.6	113.1	114.3
47.5°	668.2	347.1	169.8	140.9	132.2	121.9	119.1	111.0	107.2	108.2	109.4
50°	729.8	348.8	155.0	131.2	125.1	116.4	113.1	108.9	107.2	107.7	107.2
52.5°	815.1	343.3	140.9	125.1	119.7	108.2	108.2	107.7	108.2	107.7	107.7
55°	862.0	331.4	130.7	121.9	115.9	104.5	106.7	107.7	108.9	108.2	108.2
57.5°	928.3	323.2	122.3	119.7	113.7	103.3	105.6	107.7	108.2	107.7	107.7
60°	1006.6	317.8	117.0	120.3	112.1	103.3	106.1	107.7	107.2	106.7	106.7
62.5°	1097.5	315.7	113.1	121.9	110.4	103.9	106.1	107.7	105.6	105.0	105.0
65°	1131.9	296.0	108.2	123.0	111.6	103.9	105.6	106.1	103.3	102.9	102.2
67.5°	1079.0	262.2	101.1	120.8	114.9	103.9	103.9	103.3	100.2	99.6	98.5
70°	960.9	217.7	90.3	113.7	117.0	104.5	101.8	99.1	95.8	95.8	93.7
72.5°	786.8	171.3	76.1	101.1	115.3	106.1	97.3	93.7	89.8	89.8	87.7
75°	567.0	127.9	60.9	84.4	108.2	105.6	91.9	87.0	82.7	82.1	79.4
77.5°	323.2	89.8	49.5	65.8	96.3	102.9	87.0	79.4	74.6	72.9	71.2
80°	165.9	60.4	40.2	51.7	79.9	95.2	83.3	70.7	65.2	62.6	59.8
82.5°	79.0	40.2	31.0	38.1	60.4	83.3	78.3	60.9	54.9	51.7	48.4
85°	35.4	24.0	20.8	24.4	42.9	64.8	69.1	50.0	42.9	53.9	39.7
87.5°	11.4	10.9	10.9	11.4	20.8	28.2	50.7	37.0	34.2	28.2	24.0
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)