

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: P234687

Luminaire Tested: **ARCH-AF24-20-D-U-T2R-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234687
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-AF24-20-D-U-T2R-8027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 260mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2221 lumens
Efficiency: N/A
Efficacy: 105.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B0 - U0 - G1

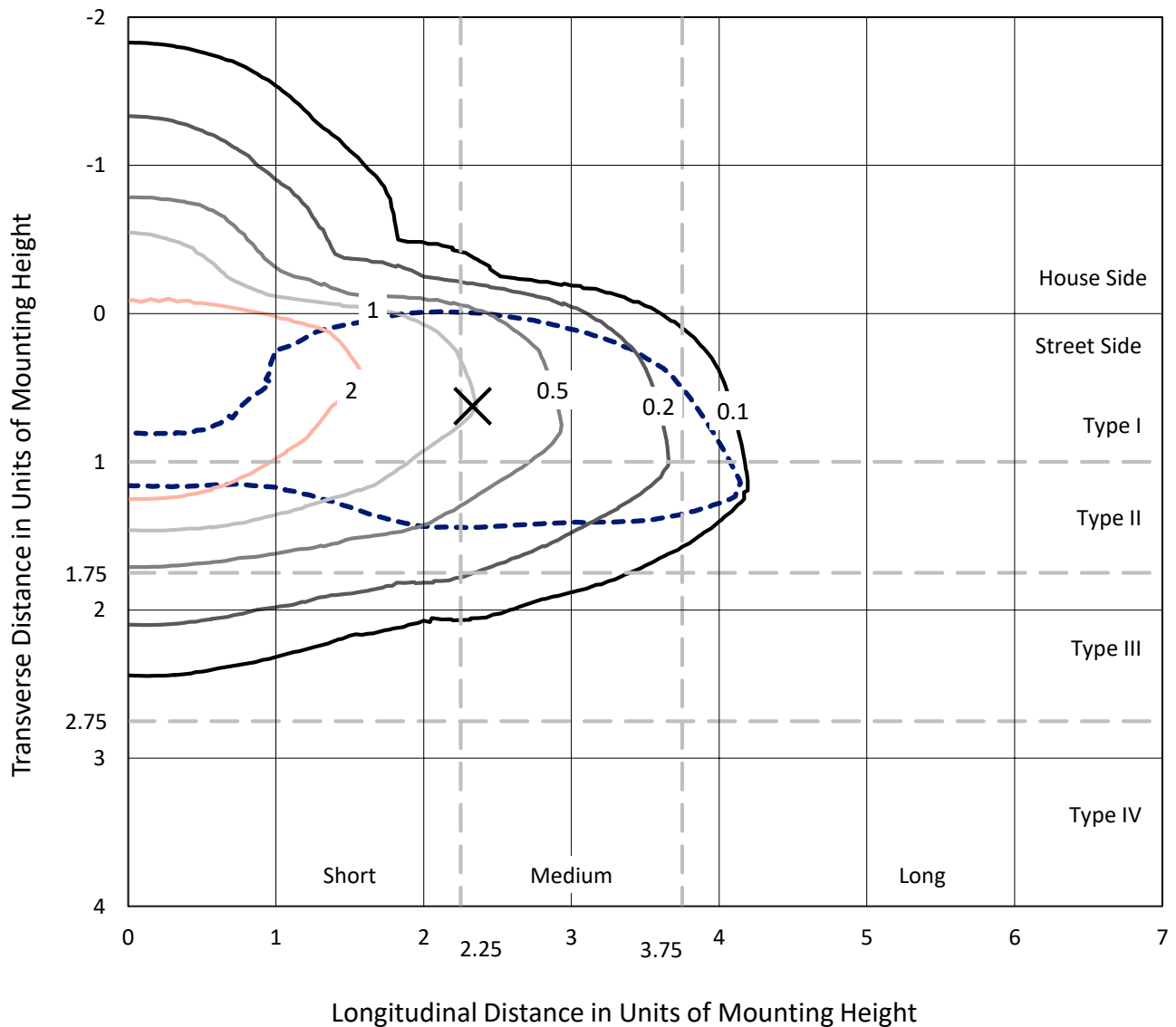
Input Watts (W): 21
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

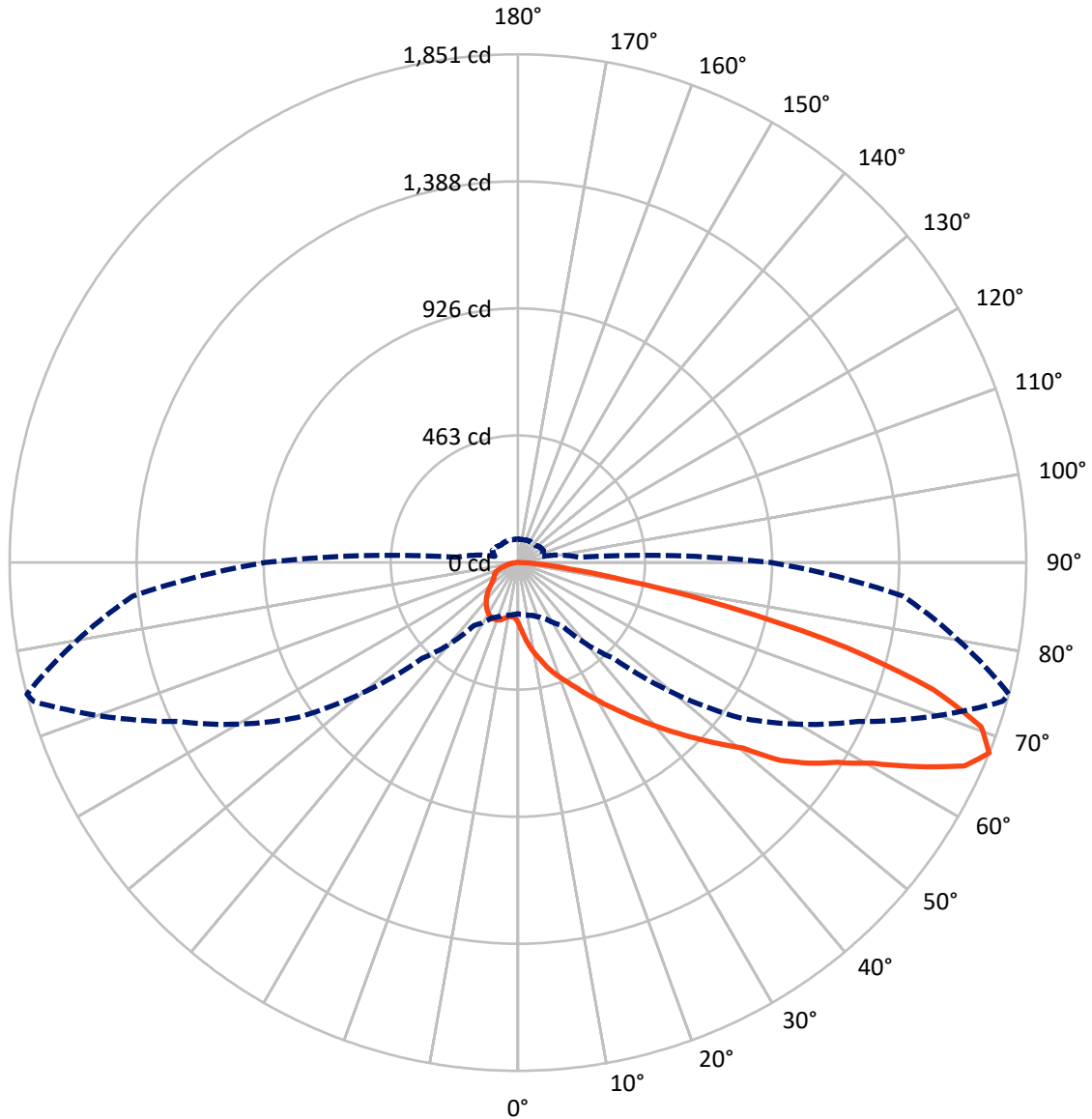
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.6 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	379.3	0.0	379.3
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	1841.7	0.0	1841.7
	% Fixture	82.9	0.0	82.9
Total	Lumens	2221.0	0.0	2221.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.9	1.2
10°-20°	93.4	4.2
20°-30°	170.4	7.7
30°-40°	279.7	12.6
40°-50°	404.5	18.2
50°-60°	476.7	21.5
60°-70°	463.3	20.9
70°-80°	257.5	11.6
80°-90°	49.5	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°	2221.0	100.0
0°-180°	2221.0	100.0



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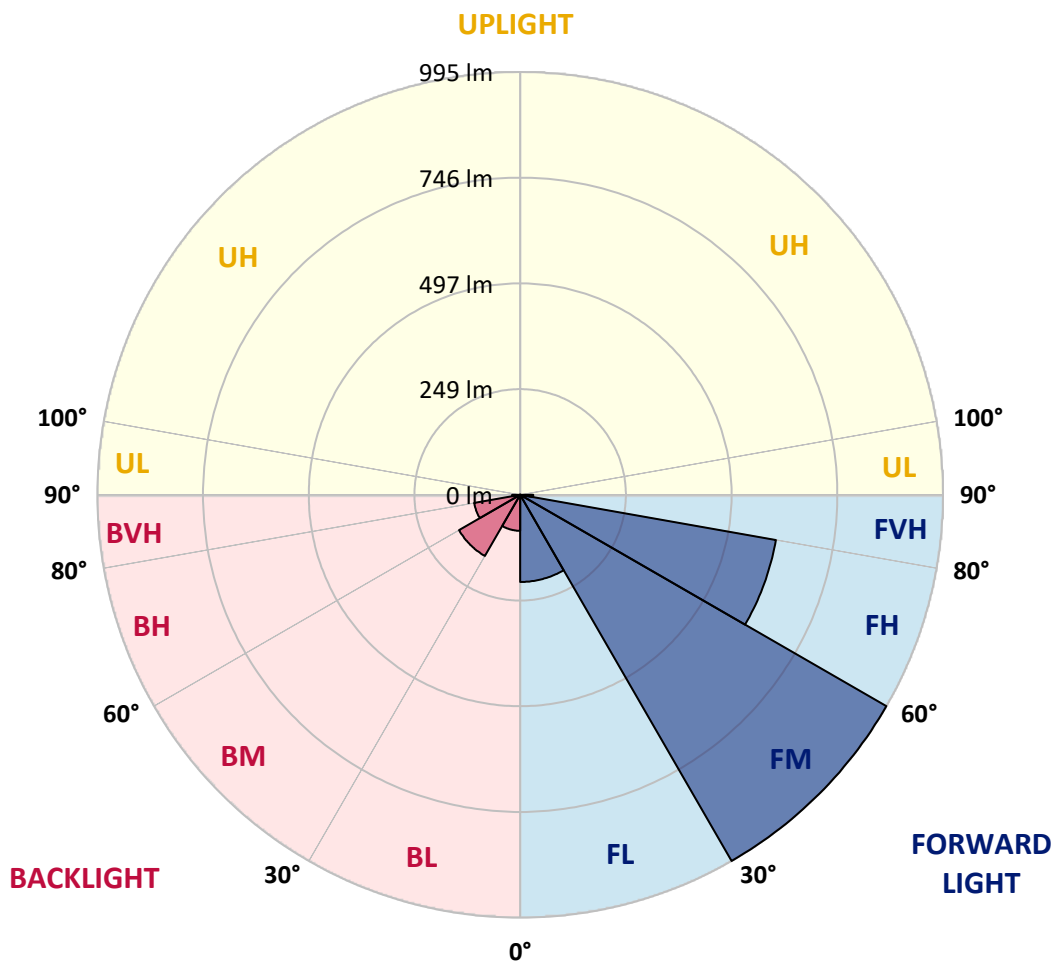
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	205.1	9.2			
FM (30°-60°)	994.9	44.8			
FH (60°-80°)	611.0	27.5			G0/660
FVH (80°-90°)	30.8	1.4			G1/100
BL (0°-30°)	84.7	3.8	B0/110		
BM (30°-60°)	166.1	7.5	B0/220		
BH (60°-80°)	109.8	4.9	B0/110		G0/110
BVH (80°-90°)	18.7	0.8			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	220.1	220.1	220.1	220.1	220.1	220.1	220.1	220.1	220.1	220.1	220.1
2.5°	312.0	312.9	311.1	306.9	300.9	289.7	280.0	262.8	247.5	245.6	229.4
5°	366.8	367.7	365.4	360.3	353.8	341.7	328.3	306.0	281.4	276.7	242.4
7.5°	404.4	404.9	402.1	397.0	391.9	379.8	366.3	341.3	311.1	307.4	259.1
10°	436.4	437.4	433.7	430.4	424.8	412.8	398.8	372.4	341.3	336.2	276.3
12.5°	466.2	467.1	464.8	462.0	460.1	449.0	433.7	402.1	368.7	363.1	296.7
15°	486.1	487.1	487.5	491.2	493.6	485.7	470.3	436.0	398.4	393.3	320.8
17.5°	480.6	482.9	489.8	503.3	517.7	518.2	505.6	469.4	427.6	422.1	345.4
20°	464.3	466.2	474.5	494.9	523.3	539.5	538.6	503.3	455.0	449.0	368.2
22.5°	477.8	480.1	480.1	492.6	520.5	550.7	562.7	536.7	482.4	476.8	390.9
25°	535.3	536.7	527.0	521.9	532.1	559.9	582.7	572.9	515.8	509.3	415.6
27.5°	615.7	613.3	601.3	580.8	569.7	577.1	600.3	607.3	554.4	546.5	441.1
30°	695.5	694.1	680.2	652.8	627.7	612.0	619.8	638.0	596.2	586.9	465.7
32.5°	770.3	768.0	752.6	720.6	692.3	663.0	647.7	665.8	640.7	630.1	493.1
35°	839.0	833.0	817.6	784.2	755.0	727.1	689.5	692.3	689.0	677.9	523.3
37.5°	894.7	890.1	873.4	842.2	811.1	784.7	745.2	722.5	741.0	730.3	558.1
40°	943.9	938.8	921.6	890.5	861.7	836.7	805.6	759.1	799.5	787.5	597.1
42.5°	981.1	977.4	963.4	932.8	904.9	882.2	866.9	805.6	860.4	848.7	639.8
45°	1001.0	997.3	989.9	965.3	939.7	922.1	923.5	860.8	924.0	914.2	690.4
47.5°	976.4	979.2	985.7	981.1	965.3	956.9	974.1	917.9	995.0	985.7	745.2
50°	910.5	913.3	939.3	971.3	976.9	987.1	1019.6	983.9	1070.2	1062.8	813.0
52.5°	748.5	763.8	835.7	912.4	964.8	1007.1	1070.2	1081.8	1197.0	1197.0	932.8
55°	565.5	579.0	661.2	794.9	917.9	1008.9	1107.4	1148.2	1288.4	1290.3	995.5
57.5°	458.3	466.6	507.0	644.0	819.5	985.7	1151.5	1205.3	1364.6	1372.9	1076.3
60°	371.9	376.5	403.0	498.2	683.5	923.0	1183.0	1287.0	1473.2	1484.8	1179.3
62.5°	299.0	303.7	321.3	378.4	536.3	805.6	1177.5	1372.0	1618.1	1637.1	1314.4
65°	238.7	243.8	255.4	290.7	397.4	659.8	1120.4	1415.7	1768.1	1786.6	1404.1
67.5°	186.2	190.8	198.7	221.9	280.0	493.6	985.2	1369.7	1835.4	1851.2	1408.7
70°	140.7	143.0	149.5	164.4	200.1	327.8	771.2	1215.5	1775.0	1789.4	1315.8
72.5°	109.1	108.6	112.4	119.8	139.8	225.7	511.2	988.5	1569.3	1584.2	1122.7
75°	89.1	88.7	91.0	93.3	101.2	151.4	301.8	744.3	1266.6	1238.3	842.2
77.5°	75.2	74.8	77.1	77.5	80.8	104.5	171.8	489.8	845.0	796.3	474.5
80°	63.6	63.1	65.9	66.9	69.2	76.6	98.9	265.1	424.4	402.1	226.6
82.5°	47.8	49.7	54.8	57.1	59.9	56.6	61.3	117.0	196.9	188.0	98.4
85°	23.2	27.4	41.3	46.0	49.2	35.8	41.8	55.3	88.7	84.5	39.9
87.5°	7.9	7.0	24.6	29.3	32.0	16.3	23.2	30.6	36.7	33.4	12.5
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°	220.1	220.1	220.1	220.1	220.1	220.1	220.1	220.1	220.1	220.1	220.1
2.5°	222.4	215.4	205.2	197.3	192.2	188.0	186.2	185.7	184.8	184.3	184.3
5°	227.0	214.5	198.7	190.4	188.0	186.2	187.1	187.6	187.6	187.6	187.6
7.5°	234.0	216.4	197.3	191.8	191.3	191.3	194.1	195.5	196.4	196.4	196.4
10°	243.3	219.6	199.7	195.0	196.4	197.3	200.6	202.4	203.4	203.8	204.3
12.5°	255.8	226.6	204.3	200.6	202.4	202.9	205.2	206.2	207.1	207.5	207.5
15°	272.5	236.8	211.7	207.1	207.5	207.1	207.1	206.2	205.7	205.7	206.6
17.5°	289.7	246.5	218.2	211.7	209.9	206.2	203.4	201.0	199.7	198.7	199.2
20°	306.9	255.4	221.9	212.7	207.5	201.5	196.4	193.1	191.3	189.4	190.4
22.5°	324.1	263.7	223.3	209.9	202.4	193.6	188.0	182.9	178.8	176.0	176.4
25°	343.1	273.0	223.3	206.6	195.5	186.2	179.2	170.9	164.8	162.5	163.4
27.5°	362.2	280.9	221.0	200.6	187.6	178.3	168.1	158.3	154.6	153.2	153.7
30°	381.2	286.9	215.9	193.1	179.2	169.0	155.5	149.0	144.4	140.7	141.1
32.5°	400.2	291.1	208.9	183.9	170.4	157.4	146.3	138.8	130.5	125.8	126.3
35°	422.1	294.4	200.6	174.6	160.6	147.2	138.8	126.8	117.9	114.2	113.3
37.5°	444.8	296.7	191.8	164.4	150.9	139.8	131.4	116.5	108.2	103.1	102.6
40°	469.4	297.6	181.1	153.7	141.6	135.1	121.6	110.5	96.1	92.9	92.9
42.5°	498.7	297.2	170.4	143.0	131.4	124.4	114.7	109.6	97.0	93.8	91.9
45°	532.1	297.2	158.8	130.5	121.2	111.0	106.8	103.5	95.2	96.6	97.5
47.5°	570.2	296.2	144.9	120.3	112.8	104.0	101.7	94.7	91.5	92.4	93.3
50°	622.6	297.6	132.3	111.9	106.8	99.4	96.6	92.9	91.5	91.9	91.5
52.5°	695.5	293.0	120.3	106.8	102.1	92.4	92.4	91.9	92.4	91.9	91.9
55°	735.5	282.8	111.4	104.0	98.9	89.1	91.0	91.9	92.9	92.4	92.4
57.5°	792.1	275.8	104.5	102.1	97.0	88.2	90.1	91.9	92.4	91.9	91.9
60°	859.0	271.2	99.8	102.6	95.6	88.2	90.5	91.9	91.5	91.0	91.0
62.5°	936.5	269.3	96.6	104.0	94.3	88.7	90.5	91.9	90.1	89.6	89.6
65°	965.7	252.6	92.4	104.9	95.2	88.7	90.1	90.5	88.2	87.8	87.3
67.5°	920.7	223.8	86.4	103.1	98.0	88.7	88.7	88.2	85.4	85.0	84.0
70°	820.0	185.7	77.1	97.0	99.8	89.1	86.8	84.5	81.7	81.7	79.9
72.5°	671.4	146.3	65.0	86.4	98.4	90.5	83.1	79.9	76.6	76.6	74.8
75°	483.8	109.1	52.0	72.0	92.4	90.1	78.5	74.3	70.6	70.1	67.8
77.5°	275.8	76.6	42.3	56.2	82.2	87.8	74.3	67.8	63.6	62.2	60.8
80°	141.6	51.5	34.4	44.1	68.3	81.3	71.0	60.4	55.7	53.4	51.1
82.5°	67.3	34.4	26.5	32.5	51.5	71.0	66.9	52.0	46.9	44.1	41.3
85°	30.2	20.4	17.6	20.9	36.7	55.3	59.0	42.7	36.7	46.0	33.9
87.5°	9.8	9.3	9.3	9.8	17.6	24.1	43.2	31.6	29.3	24.1	20.4
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)