

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: io LED

Report Number: P273330

Luminaire Tested: **0.03-1W-827-10-ID-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P273330
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (ITL89171-GONIOPHOTOMETRY)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: 0.03-1W-827-10-ID-STD-UNV-AN-3F0
Description: iO LIGHTING SERIES .75 LINEAR LED LUMINAIRE, 10 DEGREE OPTIC.
STANDARD OUTPUT
Light Source: 2700K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 220.3 lumens
Efficiency: N/A
Efficacy: 29.4 lumens/watt
Spacing Criteria (0/90/45): 0.37 / 0.89 / 0.57
Luminous Opening: Rectangular (W 2.92' x L: 0.05' x H: 0')
CIE Type: Direct

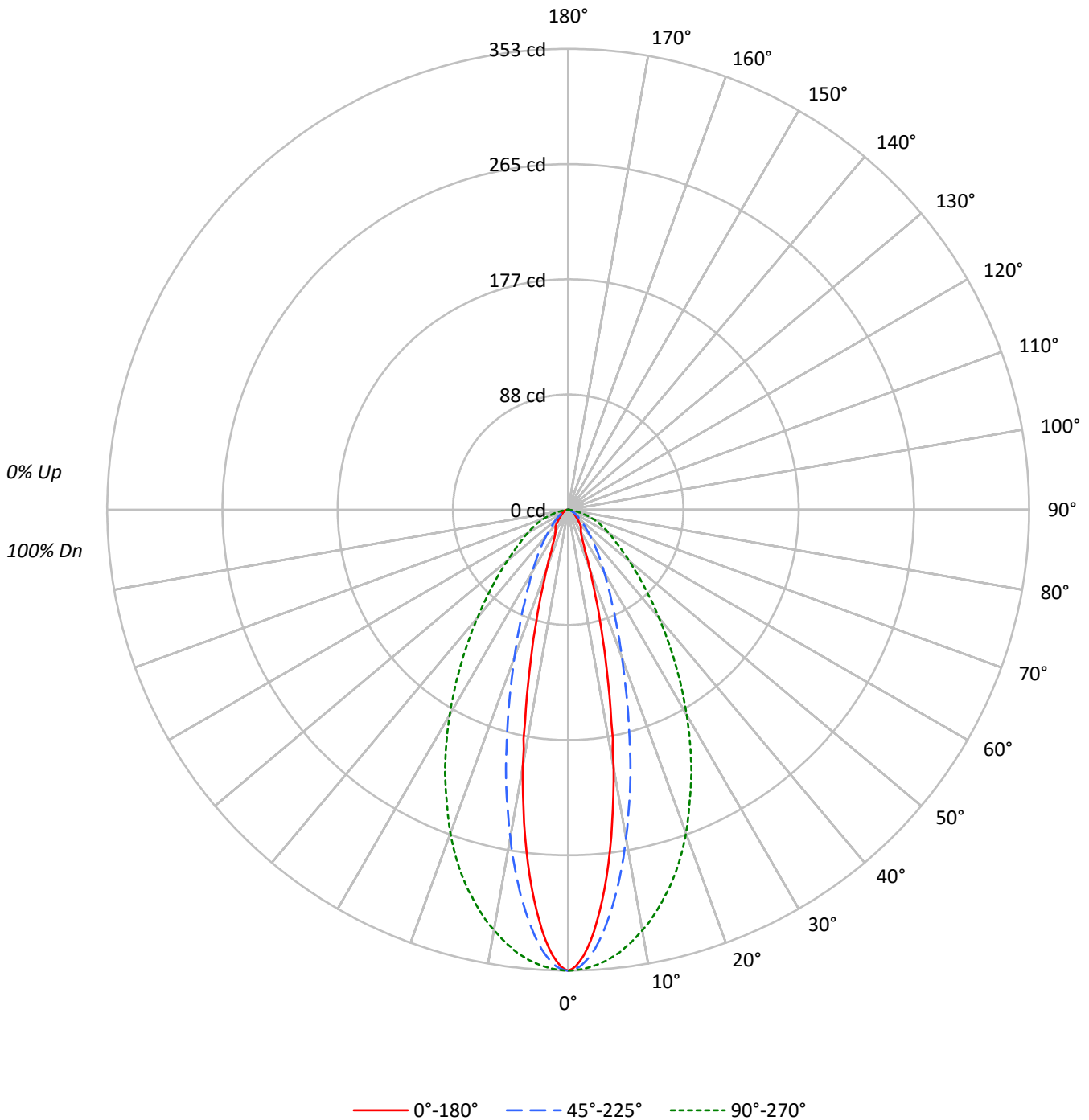
Input Watts (W): 7.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20					
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	112	109	106	103	110	107	104	102	103	101	99	99	97	96	95	94	93	91					91			
2	105	100	95	91	103	98	94	90	95	91	88	92	89	86	89	86	84	82					82			
3	99	92	86	81	97	90	85	80	87	83	79	85	81	78	83	79	77	75					75			
4	93	85	78	73	91	83	77	73	81	76	72	79	75	71	77	73	70	69					69			
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63					63			
6	83	73	66	62	82	72	66	61	71	65	61	69	64	61	68	64	60	59					59			
7	79	69	62	57	77	68	62	57	67	61	57	65	60	56	64	60	56	55					55			
8	75	64	58	53	74	64	58	53	63	57	53	62	56	53	61	56	53	51					51			
9	71	61	54	50	70	60	54	50	59	54	50	58	53	50	57	53	49	48					48			
10	68	58	51	47	67	57	51	47	56	51	47	55	50	47	55	50	47	45					45			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	27808	27808	27808
5°	23709	25424	27368
10°	15989	20402	26142
15°	8379	14794	24412
20°	3980	10054	22102
25°	2233	6915	19389
30°	1755	4973	16491
35°	1644	3681	13658
40°	1398	2682	11110
45°	1102	1993	9041
50°	906	1543	7422
55°	810	1235	6342
60°	772	976	5621
65°	820	764	5123
70°	829	598	4489
75°	791	517	3437
80°	771	408	2222
85°	542	361	1174



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.7	13.0
10°-20°	52.9	24.0
20°-30°	46.7	21.2
30°-40°	36.5	16.6
40°-50°	25.1	11.4
50°-60°	16.0	7.3
60°-70°	9.4	4.3
70°-80°	4.2	1.9
80°-90°	0.8	0.4
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°-30°	128.3	58.2
0°-40°	164.8	74.8
0°-60°	205.9	93.5
0°-90°	220.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	220.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	353	353	353	353	353	
5°	300	307	322	338	346	25
15°	103	125	182	255	300	29
25°	26	36	80	163	223	13
35°	17	19	38	96	142	11
45°	10	11	18	54	81	8
55°	6	6	9	29	46	5
65°	4	4	4	14	28	4
75°	3	2	2	5	11	3
85°	1	1	0	1	1	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	353.2	353.2	353.2	353.2	353.2	353.2	353.2	353.2	353.2	353.2	353.2
0.5°	351.9	351.8	351.7	351.6	351.5	351.5	351.8	352.1	352.3	352.6	352.6
1°	349.6	349.6	349.6	349.5	349.5	349.7	350.2	350.6	351.1	351.5	351.7
1.5°	345.9	346.0	346.2	346.3	346.5	346.9	347.6	348.4	349.1	349.9	350.2
2°	341.5	341.8	342.0	342.3	342.6	343.2	344.2	345.3	346.3	347.3	348.0
2.5°	336.1	336.6	337.2	337.7	338.2	339.1	340.4	341.7	342.9	344.2	345.4
3°	330.4	330.9	331.6	332.1	332.7	333.9	335.6	337.3	339.0	340.8	342.3
3.5°	323.5	324.3	325.1	325.9	326.6	328.1	330.3	332.4	334.6	336.8	338.7
4°	316.2	317.2	318.1	319.0	320.0	321.8	324.4	327.0	329.6	332.1	334.7
4.5°	308.3	309.4	310.6	311.8	312.9	315.0	318.1	321.2	324.2	327.3	330.4
5°	300.0	301.4	302.8	304.1	305.5	307.9	311.4	314.8	318.3	321.7	325.5
5.5°	291.3	292.9	294.4	296.0	297.6	300.3	304.2	308.2	312.1	316.0	320.4
6°	282.2	284.0	285.8	287.6	289.4	292.5	296.9	301.3	305.8	310.2	315.3
6.5°	272.6	274.6	276.7	278.7	280.8	284.3	289.2	294.2	299.1	304.0	309.7
7°	262.5	264.8	267.1	269.4	271.7	275.6	281.1	286.6	292.1	297.6	304.0
7.5°	252.4	254.9	257.3	259.8	262.3	266.6	272.7	278.8	284.9	291.0	298.1
8°	242.2	244.9	247.6	250.2	252.9	257.5	264.2	270.9	277.6	284.2	292.0
8.5°	231.8	234.7	237.5	240.4	243.2	248.3	255.5	262.7	270.0	277.2	285.7
9°	221.6	224.6	227.7	230.7	233.8	239.2	246.9	254.6	262.3	270.0	279.2
9.5°	210.9	213.9	216.8	219.8	222.8	228.5	237.1	245.6	254.1	262.7	272.5
10°	200.0	203.2	206.4	209.7	212.9	219.0	228.1	237.1	246.2	255.2	265.8
10.5°	186.2	190.3	194.4	198.5	202.6	209.4	219.0	228.7	238.3	247.9	259.2
11°	178.8	182.3	185.8	189.3	192.8	199.7	209.9	220.1	230.2	240.4	252.4
11.5°	165.7	170.0	174.2	178.5	182.7	190.2	201.0	211.7	222.5	233.2	245.8
12°	155.7	160.0	164.4	168.8	173.1	180.9	192.2	203.5	214.8	226.1	239.2
12.5°	146.0	150.5	155.0	159.4	163.8	171.9	183.7	195.4	207.1	218.9	232.6
13°	136.5	141.1	145.6	150.1	154.6	162.9	175.1	187.2	199.4	211.5	225.9
13.5°	127.4	132.0	136.6	141.1	145.7	154.2	166.7	179.2	191.7	204.2	219.1
14°	118.8	123.4	128.0	132.6	137.2	145.9	158.6	171.3	184.0	196.8	212.3
14.5°	110.7	115.3	119.8	124.3	128.9	137.5	150.3	163.1	175.9	188.7	204.9
15°	102.8	107.3	111.8	116.3	120.8	129.5	142.5	155.5	168.5	181.5	198.3
16°	88.5	92.9	97.3	101.8	106.2	115.0	128.3	141.5	154.7	168.0	185.6
17°	75.7	79.9	84.2	88.5	92.8	101.6	115.0	128.3	141.7	155.0	173.3
18°	64.6	68.7	72.8	76.9	80.9	89.5	102.7	115.8	128.9	142.1	161.0
19°	55.5	59.1	62.7	66.4	70.0	78.3	91.4	104.5	117.5	130.6	150.0
20°	47.5	51.1	54.6	58.1	61.7	69.7	82.3	94.8	107.4	120.0	139.6
22.5°	33.4	36.1	38.8	41.4	44.1	51.3	62.9	74.4	86.0	97.6	117.1
25°	25.7	27.5	29.3	31.2	33.0	39.0	49.1	59.3	69.5	79.6	98.4
27.5°	21.6	22.7	23.8	24.9	26.0	30.9	39.6	48.2	56.8	65.5	83.0
30°	19.3	19.9	20.5	21.1	21.8	25.7	33.0	40.2	47.5	54.7	70.7
32.5°	18.1	18.4	18.6	18.9	19.1	22.2	28.1	34.0	39.8	45.7	60.2
35°	17.1	17.2	17.3	17.4	17.5	19.9	24.5	29.1	33.7	38.3	51.3
37.5°	15.7	15.8	16.0	16.1	16.2	18.0	21.4	24.8	28.2	31.6	43.4
40°	13.6	13.9	14.1	14.4	14.6	16.0	18.5	21.0	23.6	26.1	36.6
42.5°	11.6	11.8	12.1	12.4	12.7	13.8	15.7	17.6	19.5	21.4	30.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
45°	9.9	10.1	10.3	10.5	10.7	11.6	13.2	14.7	16.3	17.9	26.0
47.5°	8.5	8.7	8.8	9.0	9.2	9.9	11.1	12.4	13.6	14.9	22.0
50°	7.4	7.6	7.7	7.9	8.0	8.6	9.6	10.6	11.6	12.6	18.7
52.5°	6.7	6.8	6.9	6.9	7.0	7.5	8.3	9.1	9.9	10.7	16.0
55°	5.9	6.0	6.0	6.1	6.1	6.5	7.1	7.7	8.4	9.0	13.5
57.5°	5.4	5.4	5.4	5.4	5.4	5.6	6.1	6.5	7.0	7.4	11.3
60°	4.9	4.9	4.8	4.8	4.8	4.9	5.2	5.5	5.9	6.2	9.4
62.5°	4.6	4.5	4.4	4.4	4.3	4.3	4.5	4.7	4.8	5.0	7.7
65°	4.4	4.3	4.1	4.0	3.9	3.9	3.9	4.0	4.1	4.1	6.3
67.5°	4.0	3.9	3.8	3.6	3.5	3.4	3.4	3.4	3.4	3.3	5.0
70°	3.6	3.5	3.4	3.3	3.1	3.0	2.9	2.8	2.7	2.6	3.9
72.5°	3.2	3.1	2.9	2.8	2.6	2.5	2.4	2.3	2.2	2.1	3.0
75°	2.6	2.5	2.5	2.4	2.3	2.2	2.1	2.0	1.8	1.7	2.3
77.5°	2.1	2.0	2.0	1.9	1.8	1.7	1.6	1.5	1.4	1.3	1.7
80°	1.7	1.6	1.6	1.5	1.4	1.4	1.2	1.1	1.0	0.9	1.1
82.5°	1.2	1.1	1.1	1.1	1.1	1.0	0.9	0.8	0.7	0.6	0.7
85°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.4	0.4	0.4
87.5°	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	353.2	353.2	353.2	353.2	353.2	353.2	353.2	353.2
0.5°	352.7	352.8	352.8	352.9	352.9	352.9	352.9	353.0
1°	351.9	352.1	352.2	352.4	352.4	352.5	352.6	352.7
1.5°	350.6	351.0	351.4	351.6	351.9	352.0	352.2	352.4
2°	348.7	349.4	350.2	350.7	351.0	351.3	351.6	351.9
2.5°	346.5	347.6	348.8	349.6	350.0	350.4	350.7	351.2
3°	343.9	345.5	347.0	348.1	348.7	349.3	349.8	350.4
3.5°	340.6	342.5	344.4	345.8	346.8	347.7	348.7	349.6
4°	337.2	339.7	342.2	344.0	345.2	346.3	347.5	348.6
4.5°	333.5	336.6	339.7	341.9	343.3	344.6	346.0	347.3
5°	329.3	333.0	336.8	339.5	341.2	342.9	344.6	346.3
5.5°	324.9	329.3	333.8	337.0	338.9	340.9	342.8	344.7
6°	320.4	325.4	330.5	334.2	336.4	338.7	340.9	343.2
6.5°	315.4	321.2	326.9	331.0	333.7	336.3	339.0	341.7
7°	310.5	316.9	323.4	328.1	331.0	334.0	336.9	339.9
7.5°	305.2	312.3	319.4	324.5	327.9	331.2	334.5	337.8
8°	299.8	307.5	315.3	321.1	324.8	328.5	332.3	336.0
8.5°	294.1	302.6	311.1	317.4	321.5	325.7	329.8	333.9
9°	288.3	297.5	306.6	313.5	318.0	322.6	327.1	331.6
9.5°	282.4	292.3	302.2	309.6	314.5	319.5	324.4	329.3
10°	276.4	287.0	297.6	305.5	310.9	316.3	321.6	327.0
10.5°	270.4	281.7	293.0	301.5	307.3	313.1	318.9	324.7
11°	264.4	276.3	288.3	297.4	303.6	309.9	316.1	322.4
11.5°	258.3	270.8	283.4	293.0	299.7	306.4	313.1	319.8
12°	252.3	265.4	278.5	288.6	295.7	302.8	309.9	317.0
12.5°	246.3	260.0	273.7	284.3	291.7	299.2	306.7	314.2
13°	240.2	254.5	268.9	280.0	287.8	295.6	303.5	311.3
13.5°	234.0	248.9	263.8	275.4	283.7	292.0	300.2	308.5
14°	227.9	243.4	259.0	271.1	279.7	288.2	296.9	305.4
14.5°	221.2	237.5	253.7	266.4	275.5	284.5	293.6	302.6
15°	215.2	232.0	248.8	262.0	271.3	280.7	290.1	299.5
16°	203.3	220.9	238.6	252.5	262.6	272.8	282.9	293.1
17°	191.7	210.0	228.3	242.9	253.7	264.5	275.4	286.2
18°	180.0	199.0	218.0	233.2	244.6	256.1	267.5	279.0
19°	169.3	188.7	208.0	223.7	235.6	247.6	259.6	271.5
20°	159.2	178.8	198.4	214.4	226.8	239.1	251.5	263.8
22.5°	136.6	156.1	175.6	191.7	204.5	217.2	230.0	242.8
25°	117.2	136.0	154.7	170.7	183.9	197.0	210.1	223.2
27.5°	100.5	118.0	135.5	150.7	163.6	176.4	189.3	202.2
30°	86.6	102.6	118.5	132.6	144.8	157.0	169.2	181.4
32.5°	74.7	89.1	103.6	116.4	127.7	138.9	150.1	161.3
35°	64.4	77.4	90.4	102.0	112.0	122.0	132.0	142.1
37.5°	55.1	66.9	78.6	88.9	97.8	106.6	115.5	124.3
40°	47.0	57.5	68.0	77.1	84.8	92.6	100.4	108.1
42.5°	40.0	49.3	58.5	66.6	73.4	80.2	87.0	93.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
45°	34.1	42.3	50.4	57.4	63.4	69.3	75.2	81.2
47.5°	29.1	36.1	43.2	49.3	54.5	59.8	64.9	70.1
50°	24.9	31.0	37.1	42.5	47.0	51.6	56.1	60.6
52.5°	21.2	26.5	31.8	36.5	40.5	44.5	48.6	52.7
55°	18.1	22.6	27.2	31.3	35.0	38.8	42.5	46.2
57.5°	15.2	19.1	23.0	26.7	30.1	33.6	37.1	40.6
60°	12.7	15.9	19.2	22.5	25.8	29.1	32.4	35.7
62.5°	10.4	13.2	15.8	18.8	22.0	25.2	28.4	31.6
65°	8.5	10.6	12.8	15.4	18.4	21.4	24.5	27.5
67.5°	6.7	8.3	10.0	12.2	15.1	17.9	20.8	23.6
70°	5.1	6.4	7.7	9.6	12.1	14.6	17.0	19.5
72.5°	3.9	4.9	5.8	7.3	9.2	11.2	13.2	15.2
75°	2.9	3.5	4.2	5.2	6.8	8.3	9.8	11.3
77.5°	2.1	2.5	2.9	3.6	4.6	5.7	6.7	7.7
80°	1.3	1.5	1.7	2.1	2.8	3.5	4.2	4.9
82.5°	0.8	0.9	1.0	1.2	1.5	1.9	2.2	2.6
85°	0.4	0.5	0.5	0.6	0.8	1.0	1.1	1.3
87.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)