

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: P273336

Luminaire Tested: **0.03-1W-830-25-ID-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P273336
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (ITL89170-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-830-25-ID-STD-UNV-AN-3F0
Description: iO LIGHTING SERIES .75 LINEAR LED LUMINAIRE, 25 DEGREE OPTIC.
STANDARD OUTPUT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 279.3 lumens
Efficiency: N/A
Efficacy: 37.2 lumens/watt
Spacing Criteria (0/90/45): 0.49 / 1.12 / 0.73
Luminous Opening: Rectangular (W 2.92' x L: 0.05' x H: 0')
CIE Type: Direct

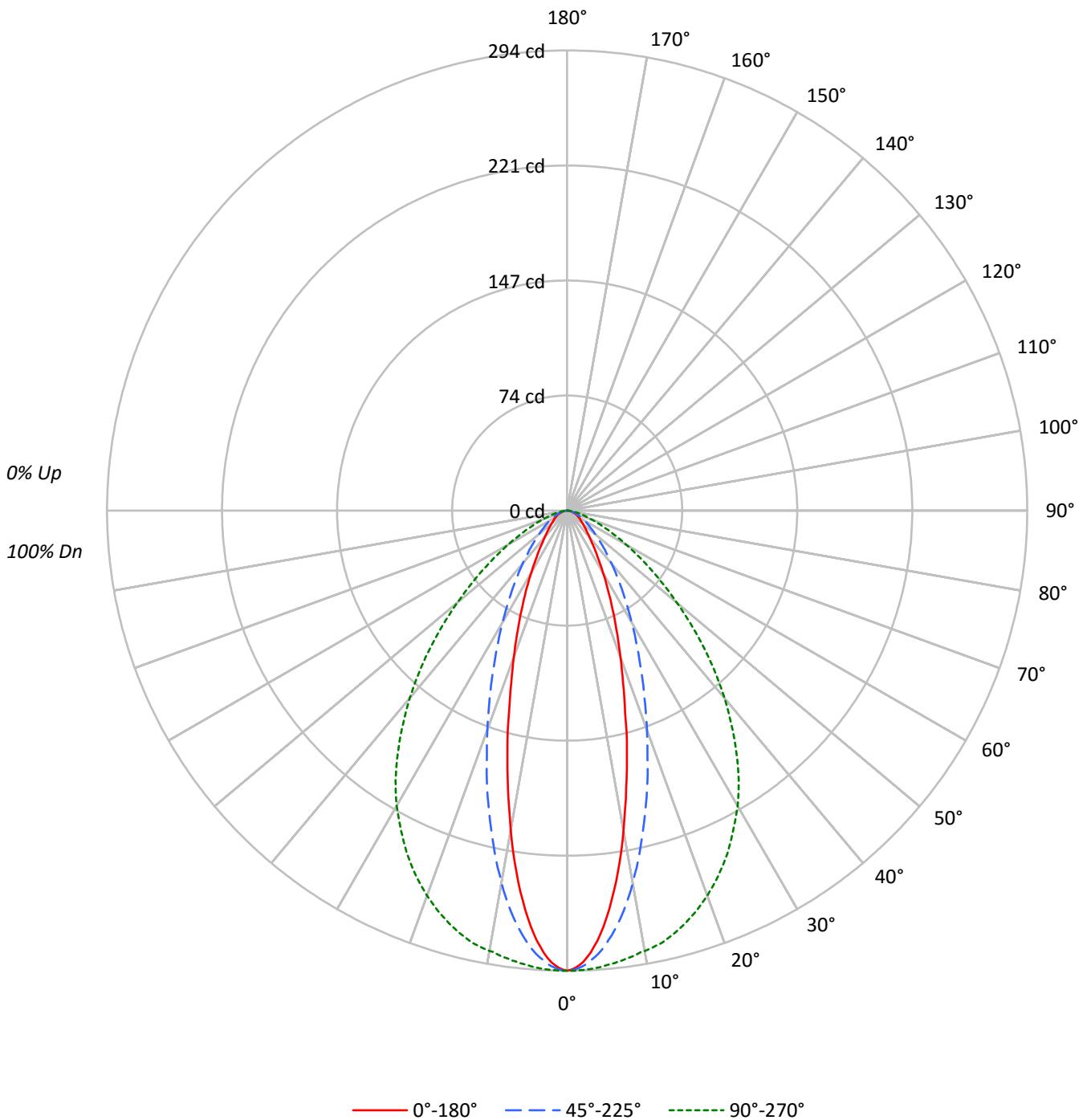
Input Watts (W): 7.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90				90
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80				80
3	98	89	83	78	95	88	82	78	85	80	76	83	79	75	80	77	74	72				72
4	91	82	75	70	89	81	74	69	78	73	69	76	72	68	74	70	67	65				65
5	86	75	68	63	84	74	68	63	72	67	62	71	66	61	69	64	61	59				59
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	60	56	54				54
7	76	65	58	53	74	64	57	52	63	57	52	61	56	52	60	55	51	50				50
8	72	60	53	48	70	60	53	48	59	52	48	57	52	48	56	51	48	46				46
9	68	56	50	45	66	56	49	45	55	49	45	54	48	45	53	48	44	43				43
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	41	40				40

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	23147	23147	23147
5°	21085	22042	23038
10°	16581	19307	22840
15°	11957	15853	22553
20°	8336	12475	21934
25°	5898	9669	21022
30°	4173	7491	19809
35°	3008	5805	18117
40°	2292	4522	16064
45°	1871	3574	13740
50°	1580	2866	11207
55°	1428	2375	8895
60°	1338	1984	6834
65°	1285	1733	5160
70°	1128	1519	3867
75°	1095	1338	2920
80°	861	1133	2222
85°	723	723	1445



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.5	9.1
10°-20°	56.4	20.2
20°-30°	60.9	21.8
30°-40°	52.3	18.7
40°-50°	38.6	13.8
50°-60°	24.7	8.8
60°-70°	13.6	4.9
70°-80°	6.0	2.1
80°-90°	1.3	0.5
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°	142.8	51.1
0°-40°	195.1	69.8
0°-60°	258.4	92.5
0°-90°	279.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	279.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	294	294	294	294	294	
5°	267	270	279	287	292	24
15°	147	159	194	246	277	40
25°	68	79	111	185	242	32
35°	31	38	60	126	188	20
45°	17	20	32	78	123	13
55°	10	12	17	43	65	9
65°	7	7	9	20	28	7
75°	4	4	4	8	10	4
85°	1	1	1	1	2	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°	294.0	294.0	294.0	294.0	294.0	294.0	294.0	294.0	294.0	294.0	294.0
0.5°	293.4	293.5	293.5	293.6	293.7	293.7	293.7	293.7	293.7	293.7	293.8
1°	292.3	292.4	292.4	292.5	292.6	292.7	292.8	292.9	293.0	293.2	293.3
1.5°	290.7	290.8	290.9	291.0	291.2	291.3	291.6	291.8	292.1	292.3	292.5
2°	288.8	288.9	289.0	289.1	289.3	289.5	289.9	290.4	290.8	291.2	291.5
2.5°	286.0	286.3	286.5	286.8	287.0	287.4	288.0	288.6	289.3	289.9	290.4
3°	283.0	283.3	283.6	283.9	284.2	284.7	285.5	286.3	287.1	287.9	288.7
3.5°	279.4	279.9	280.3	280.7	281.1	281.9	282.9	283.9	285.0	286.0	287.1
4°	275.6	276.1	276.6	277.0	277.5	278.5	279.9	281.3	282.7	284.1	285.4
4.5°	271.4	272.0	272.5	273.1	273.6	274.8	276.5	278.2	279.9	281.6	283.2
5°	266.8	267.4	268.1	268.8	269.5	270.8	272.8	274.8	276.9	278.9	280.8
5.5°	261.8	262.6	263.4	264.2	265.0	266.6	268.9	271.2	273.5	275.8	278.2
6°	256.3	257.3	258.3	259.3	260.2	262.1	264.8	267.4	270.1	272.8	275.6
6.5°	250.8	251.9	252.9	253.9	255.0	257.1	260.2	263.3	266.4	269.5	272.7
7°	245.1	246.2	247.4	248.6	249.7	252.0	255.5	259.0	262.5	266.0	269.6
7.5°	239.3	240.6	241.9	243.1	244.4	247.0	250.8	254.7	258.5	262.4	266.4
8°	233.0	234.4	235.8	237.2	238.6	241.4	245.7	250.0	254.2	258.5	263.0
8.5°	226.9	228.4	229.9	231.3	232.8	235.8	240.5	245.1	249.8	254.4	259.4
9°	220.6	222.2	223.8	225.4	227.0	230.3	235.3	240.3	245.3	250.3	255.8
9.5°	214.0	215.8	217.6	219.3	221.1	224.7	230.0	235.4	240.8	246.2	252.2
10°	207.4	209.3	211.2	213.1	215.0	218.8	224.5	230.2	235.8	241.5	248.1
10.5°	200.8	202.8	204.7	206.7	208.6	212.7	218.7	224.7	230.8	236.8	244.1
11°	194.2	196.5	198.8	201.0	203.3	207.5	213.8	220.0	226.2	232.4	240.2
11.5°	187.9	190.2	192.6	194.9	197.2	201.6	208.2	214.7	221.2	227.8	236.1
12°	181.6	184.0	186.4	188.7	191.1	195.7	202.6	209.4	216.3	223.1	231.9
12.5°	175.6	178.0	180.3	182.7	185.1	189.8	196.8	203.8	210.8	217.9	227.4
13°	169.5	172.0	174.4	176.9	179.3	184.1	191.4	198.7	205.9	213.2	223.2
13.5°	163.5	166.0	168.5	171.0	173.5	178.5	186.0	193.5	201.0	208.5	219.0
14°	157.7	160.2	162.7	165.2	167.7	172.8	180.6	188.4	196.1	203.9	214.8
14.5°	152.2	154.7	157.1	159.5	162.0	167.2	175.2	183.2	191.2	199.2	210.6
15°	146.7	149.2	151.7	154.2	156.7	162.0	170.1	178.3	186.4	194.5	206.4
16°	134.6	137.4	140.2	143.1	145.9	151.5	159.9	168.3	176.7	185.2	197.8
17°	125.0	127.8	130.5	133.3	136.0	141.7	150.2	158.7	167.3	175.8	189.3
18°	115.7	118.4	121.1	123.7	126.4	132.0	140.6	149.1	157.7	166.2	180.5
19°	107.2	109.8	112.4	115.0	117.6	123.3	131.8	140.3	148.9	157.4	172.3
20°	99.5	102.0	104.5	107.0	109.5	115.0	123.4	131.9	140.4	148.9	164.2
22.5°	82.1	84.4	86.7	88.9	91.2	96.4	104.6	112.8	120.9	129.1	145.3
25°	67.9	69.9	72.0	74.1	76.2	81.0	88.6	96.1	103.7	111.3	127.9
27.5°	55.8	57.7	59.6	61.5	63.4	67.8	74.8	81.8	88.9	95.9	112.4
30°	45.9	47.5	49.2	50.8	52.5	56.5	63.0	69.5	75.9	82.4	98.5
32.5°	37.6	39.1	40.6	42.0	43.5	47.2	53.0	58.9	64.8	70.6	86.0
35°	31.3	32.5	33.8	35.0	36.2	39.5	44.7	49.9	55.2	60.4	75.0
37.5°	26.4	27.4	28.3	29.3	30.3	33.1	37.7	42.4	47.0	51.7	65.1
40°	22.3	23.1	24.0	24.8	25.7	28.1	32.1	36.0	40.0	44.0	56.4
42.5°	19.2	19.8	20.4	21.1	21.7	23.7	27.2	30.7	34.2	37.6	49.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
45°	16.8	17.3	17.7	18.2	18.7	20.4	23.4	26.3	29.2	32.1	42.3
47.5°	14.6	15.0	15.4	15.9	16.3	17.7	20.1	22.6	25.0	27.5	36.5
50°	12.9	13.2	13.5	13.8	14.1	15.3	17.3	19.3	21.3	23.4	31.3
52.5°	11.5	11.8	12.0	12.3	12.5	13.5	15.1	16.8	18.4	20.1	26.8
55°	10.4	10.6	10.8	11.0	11.2	11.9	13.3	14.6	16.0	17.3	23.1
57.5°	9.6	9.7	9.7	9.8	9.9	10.4	11.5	12.6	13.7	14.8	19.6
60°	8.5	8.6	8.6	8.7	8.8	9.2	10.1	10.9	11.8	12.6	16.6
62.5°	7.7	7.7	7.8	7.9	7.9	8.3	9.0	9.6	10.3	11.0	14.2
65°	6.9	6.9	6.9	6.9	6.9	7.1	7.7	8.2	8.8	9.3	11.8
67.5°	6.0	6.0	6.0	6.0	6.0	6.3	6.7	7.1	7.5	8.0	9.9
70°	4.9	5.0	5.1	5.1	5.2	5.4	5.7	6.0	6.3	6.6	8.1
72.5°	4.1	4.2	4.2	4.3	4.4	4.5	4.8	5.0	5.2	5.5	6.5
75°	3.6	3.6	3.6	3.6	3.6	3.7	3.8	4.0	4.2	4.4	5.1
77.5°	2.7	2.7	2.7	2.7	2.7	2.8	2.9	3.0	3.2	3.3	3.8
80°	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.2	2.4	2.5	2.8
82.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.5	1.5	1.6	1.6	1.8
85°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9
87.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	294.0	294.0	294.0	294.0	294.0	294.0	294.0	294.0
0.5°	293.8	293.9	293.9	294.0	294.0	294.0	294.0	294.0
1°	293.4	293.5	293.6	293.7	293.8	293.9	293.9	294.0
1.5°	292.7	292.9	293.1	293.2	293.3	293.5	293.6	293.7
2°	291.8	292.1	292.4	292.7	293.0	293.2	293.5	293.7
2.5°	291.0	291.5	292.1	292.4	292.7	292.9	293.2	293.4
3°	289.5	290.3	291.1	291.7	292.1	292.4	292.8	293.2
3.5°	288.1	289.1	290.2	290.9	291.4	291.9	292.4	292.9
4°	286.6	287.9	289.2	290.2	290.8	291.4	292.0	292.6
4.5°	284.8	286.4	288.0	289.1	289.9	290.6	291.3	292.1
5°	282.8	284.7	286.7	288.1	288.9	289.8	290.7	291.5
5.5°	280.6	283.0	285.4	287.1	288.0	289.0	290.0	291.0
6°	278.3	281.1	283.8	285.8	287.0	288.2	289.5	290.7
6.5°	275.9	279.1	282.2	284.5	285.8	287.2	288.5	289.9
7°	273.2	276.8	280.3	283.0	284.6	286.3	287.9	289.6
7.5°	270.4	274.5	278.5	281.4	283.3	285.1	286.9	288.8
8°	267.6	272.1	276.6	279.9	282.0	284.1	286.1	288.2
8.5°	264.4	269.4	274.4	278.1	280.5	282.9	285.3	287.7
9°	261.4	267.0	272.5	276.6	279.1	281.7	284.3	286.8
9.5°	258.3	264.3	270.3	274.8	277.6	280.4	283.2	286.0
10°	254.8	261.5	268.1	273.0	276.2	279.4	282.5	285.7
10.5°	251.4	258.6	265.9	271.3	274.7	278.2	281.7	285.2
11°	247.9	255.7	263.5	269.2	273.1	276.9	280.8	284.6
11.5°	244.4	252.7	261.0	267.2	271.4	275.5	279.7	283.8
12°	240.8	249.7	258.5	265.2	269.7	274.2	278.8	283.3
12.5°	236.9	246.4	256.0	263.2	268.0	272.8	277.6	282.4
13°	233.2	243.2	253.3	260.8	266.0	271.1	276.2	281.3
13.5°	229.5	240.0	250.5	258.5	263.9	269.4	274.8	280.2
14°	225.7	236.6	247.6	256.0	261.7	267.5	273.3	279.1
14.5°	222.0	233.5	244.9	253.6	259.7	265.8	271.9	278.0
15°	218.2	230.0	241.9	251.0	257.4	263.8	270.3	276.7
16°	210.5	223.1	235.7	245.6	252.8	259.9	267.1	274.2
17°	202.7	216.1	229.6	240.2	247.9	255.7	263.4	271.2
18°	194.7	208.9	223.1	234.5	243.0	251.4	259.9	268.4
19°	187.1	201.9	216.8	228.8	237.8	246.9	256.0	265.1
20°	179.6	194.9	210.2	222.8	232.5	242.3	252.1	261.8
22.5°	161.5	177.7	193.9	207.5	218.8	230.0	241.3	252.5
25°	144.5	161.1	177.7	192.2	204.7	217.1	229.6	242.0
27.5°	128.9	145.3	161.8	176.7	190.0	203.3	216.7	230.0
30°	114.5	130.6	146.7	161.7	175.8	189.8	203.8	217.9
32.5°	101.4	116.8	132.2	147.0	161.3	175.6	189.8	204.1
35°	89.5	104.0	118.6	132.8	146.7	160.6	174.5	188.5
37.5°	78.6	92.1	105.6	119.0	132.4	145.8	159.2	172.5
40°	68.9	81.3	93.8	106.3	118.8	131.3	143.8	156.3
42.5°	60.4	71.7	83.1	94.4	105.8	117.1	128.5	139.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
45°	52.5	62.7	72.9	83.1	93.1	103.2	113.3	123.4
47.5°	45.6	54.6	63.6	72.5	81.0	89.6	98.3	106.9
50°	39.2	47.2	55.1	62.7	69.9	77.1	84.3	91.5
52.5°	33.6	40.4	47.2	53.5	59.5	65.5	71.5	77.5
55°	28.8	34.5	40.3	45.6	50.4	55.2	60.0	64.8
57.5°	24.4	29.1	33.9	38.2	42.0	45.7	49.5	53.3
60°	20.6	24.5	28.5	31.9	34.8	37.7	40.6	43.4
62.5°	17.3	20.5	23.7	26.3	28.5	30.6	32.7	34.9
65°	14.3	16.8	19.3	21.4	23.0	24.6	26.2	27.7
67.5°	11.8	13.7	15.6	17.1	18.2	19.4	20.6	21.7
70°	9.5	11.0	12.4	13.6	14.4	15.2	16.0	16.8
72.5°	7.6	8.6	9.6	10.5	11.1	11.7	12.3	12.9
75°	5.9	6.6	7.3	7.9	8.3	8.8	9.2	9.6
77.5°	4.4	4.9	5.5	5.9	6.1	6.4	6.6	6.9
80°	3.1	3.4	3.7	4.0	4.2	4.5	4.7	4.9
82.5°	2.0	2.2	2.4	2.5	2.7	2.8	2.9	3.0
85°	1.1	1.2	1.3	1.4	1.5	1.5	1.6	1.6
87.5°	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)