

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: P273340

Luminaire Tested: **0.03-1W-835-10-ID-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P273340
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-835-10-ID-STD-UNV-AN-3F0
Description: iO LIGHTING SERIES .75 LINEAR LED LUMINAIRE, 10 DEGREE OPTIC.
STANDARD OUTPUT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 245.1 lumens
Efficiency: N/A
Efficacy: 32.7 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

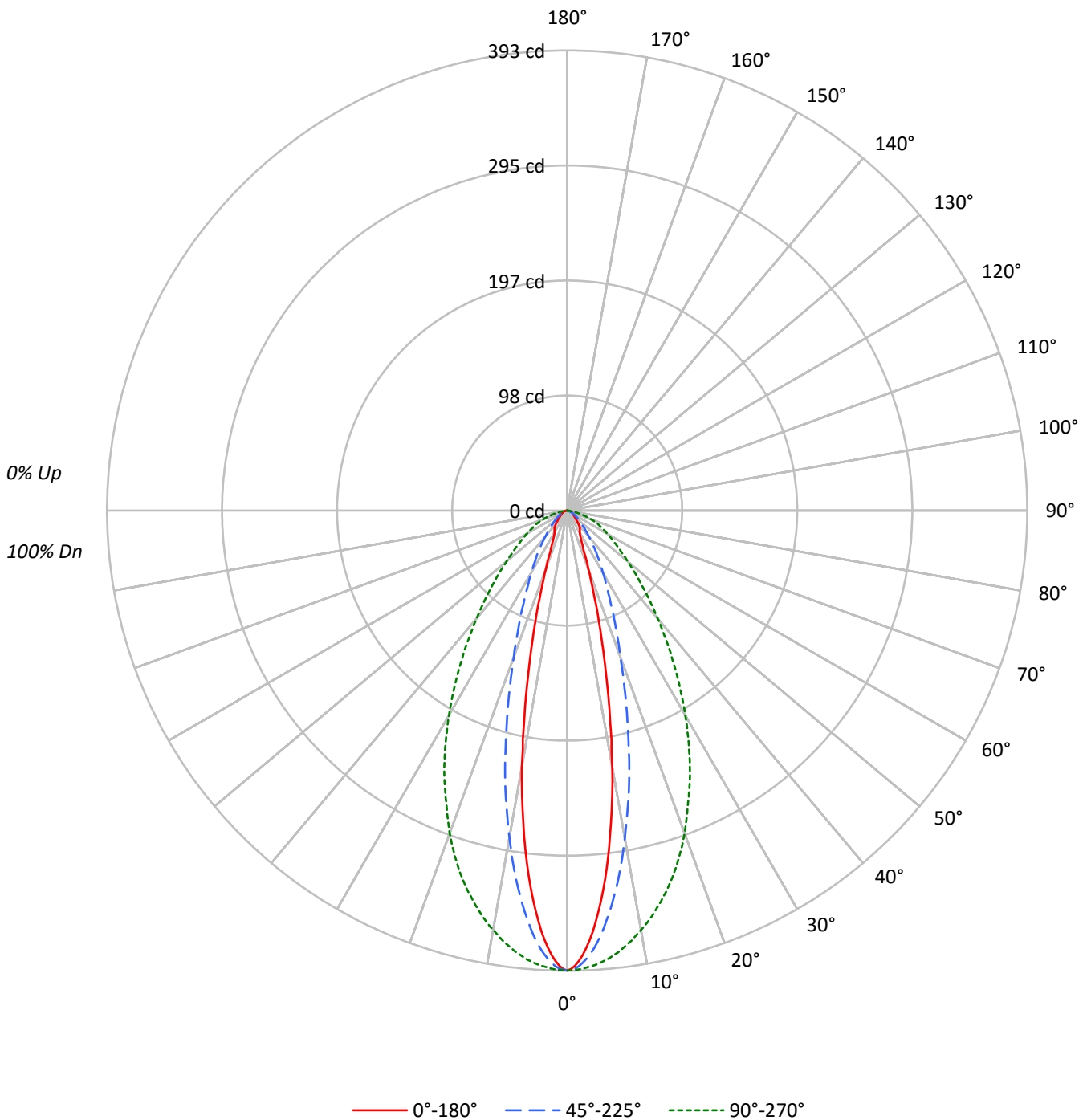
Input Watts (W): 7.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	30933	30933	30933
5°	26373	28285	30443
10°	17780	22696	29076
15°	9316	16456	27158
20°	4432	11177	24582
25°	2484	7697	21570
30°	1945	5536	18337
35°	1826	4094	15186
40°	1552	2980	12364
45°	1225	2216	10054
50°	1017	1715	8255
55°	906	1373	7055
60°	850	1086	6251
65°	913	857	5701
70°	921	668	4995
75°	882	578	3833
80°	861	453	2448
85°	632	361	1265



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.9	13.0
10°-20°	58.8	24.0
20°-30°	51.9	21.2
30°-40°	40.6	16.6
40°-50°	28.0	11.4
50°-60°	17.8	7.3
60°-70°	10.5	4.3
70°-80°	4.6	1.9
80°-90°	0.9	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°	142.7	58.2
0°-40°	183.3	74.8
0°-60°	229.1	93.5
0°-90°	245.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	245.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	393	393	393	393	393	
5°	334	341	358	376	385	28
15°	114	139	202	284	333	32
25°	29	40	89	181	248	14
35°	19	21	43	107	158	12
45°	11	12	20	60	90	9
55°	7	7	10	32	51	6
65°	5	4	5	16	31	5
75°	3	3	2	5	13	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°	392.9	392.9	392.9	392.9	392.9	392.9	392.9	392.9	392.9	392.9	392.9
0.5°	391.5	391.3	391.2	391.1	390.9	391.0	391.3	391.6	391.9	392.2	392.2
1°	388.9	388.9	388.8	388.8	388.8	389.0	389.5	390.0	390.5	391.0	391.2
1.5°	384.7	384.9	385.1	385.2	385.4	385.9	386.7	387.5	388.3	389.2	389.6
2°	379.9	380.2	380.5	380.7	381.0	381.7	382.9	384.0	385.2	386.3	387.1
2.5°	373.9	374.5	375.0	375.6	376.2	377.2	378.6	380.0	381.5	382.9	384.1
3°	367.5	368.1	368.8	369.5	370.1	371.4	373.3	375.2	377.1	379.0	380.8
3.5°	359.9	360.7	361.6	362.4	363.3	364.9	367.4	369.8	372.2	374.6	376.7
4°	351.7	352.8	353.8	354.9	355.9	357.9	360.8	363.7	366.6	369.5	372.3
4.5°	342.9	344.2	345.5	346.8	348.1	350.4	353.8	357.2	360.6	364.0	367.5
5°	333.7	335.2	336.8	338.3	339.8	342.5	346.4	350.2	354.0	357.9	362.1
5.5°	324.0	325.8	327.5	329.2	331.0	334.0	338.4	342.8	347.1	351.4	356.4
6°	313.9	315.9	317.9	319.9	321.9	325.3	330.2	335.2	340.1	345.0	350.7
6.5°	303.2	305.4	307.7	310.0	312.3	316.2	321.7	327.2	332.7	338.2	344.5
7°	292.0	294.6	297.1	299.6	302.2	306.5	312.6	318.8	324.9	331.0	338.2
7.5°	280.7	283.5	286.2	289.0	291.8	296.6	303.4	310.1	316.9	323.7	331.6
8°	269.4	272.4	275.4	278.3	281.2	286.4	293.9	301.3	308.7	316.2	324.8
8.5°	257.9	261.0	264.2	267.4	270.6	276.2	284.2	292.2	300.3	308.3	317.7
9°	246.4	249.8	253.2	256.6	260.0	266.0	274.6	283.2	291.7	300.3	310.5
9.5°	234.6	237.9	241.2	244.5	247.8	254.2	263.7	273.2	282.7	292.2	303.1
10°	222.4	226.0	229.6	233.2	236.8	243.6	253.7	263.8	273.8	283.9	295.6
10.5°	207.2	211.7	216.2	220.8	225.3	232.9	243.6	254.3	265.0	275.7	288.3
11°	198.9	202.8	206.7	210.6	214.5	222.1	233.4	244.8	256.1	267.4	280.8
11.5°	184.3	189.0	193.8	198.5	203.2	211.6	223.5	235.5	247.5	259.4	273.4
12°	173.2	178.0	182.9	187.7	192.6	201.3	213.8	226.4	238.9	251.4	266.0
12.5°	162.4	167.4	172.4	177.3	182.2	191.2	204.3	217.4	230.4	243.4	258.7
13°	151.9	156.9	161.9	166.9	171.9	181.2	194.7	208.2	221.8	235.3	251.2
13.5°	141.7	146.8	151.9	157.0	162.0	171.5	185.4	199.4	213.2	227.2	243.7
14°	132.2	137.3	142.4	147.5	152.6	162.2	176.4	190.6	204.7	218.9	236.2
14.5°	123.2	128.2	133.2	138.3	143.4	153.0	167.2	181.4	195.6	209.9	228.0
15°	114.3	119.3	124.3	129.4	134.4	144.1	158.5	173.0	187.4	201.9	220.6
16°	98.4	103.3	108.3	113.2	118.1	128.0	142.7	157.4	172.1	186.9	206.5
17°	84.1	88.9	93.7	98.4	103.2	113.0	127.9	142.7	157.6	172.4	192.8
18°	71.9	76.4	80.9	85.5	90.0	99.6	114.2	128.8	143.4	158.0	179.1
19°	61.7	65.7	69.8	73.8	77.8	87.1	101.7	116.2	130.8	145.3	166.8
20°	52.9	56.8	60.7	64.7	68.6	77.5	91.5	105.5	119.5	133.4	155.2
22.5°	37.1	40.1	43.1	46.1	49.1	57.0	69.9	82.8	95.7	108.6	130.3
25°	28.6	30.6	32.6	34.7	36.7	43.4	54.7	66.0	77.3	88.6	109.5
27.5°	24.0	25.2	26.5	27.7	28.9	34.4	44.0	53.6	63.2	72.9	92.3
30°	21.4	22.1	22.8	23.5	24.2	28.6	36.7	44.7	52.8	60.9	78.6
32.5°	20.1	20.4	20.7	21.0	21.3	24.7	31.2	37.8	44.3	50.9	66.9
35°	19.0	19.1	19.3	19.4	19.5	22.1	27.2	32.3	37.5	42.6	57.1
37.5°	17.4	17.6	17.7	17.9	18.1	20.0	23.8	27.6	31.4	35.1	48.2
40°	15.1	15.4	15.7	16.0	16.3	17.8	20.6	23.4	26.2	29.0	40.7
42.5°	12.9	13.2	13.5	13.8	14.1	15.3	17.5	19.6	21.7	23.9	34.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
45°	11.0	11.2	11.5	11.7	11.9	12.9	14.6	16.4	18.1	19.9	28.9
47.5°	9.4	9.6	9.8	10.0	10.2	11.0	12.4	13.8	15.2	16.6	24.5
50°	8.3	8.5	8.6	8.8	8.9	9.5	10.7	11.8	12.9	14.0	20.8
52.5°	7.4	7.5	7.6	7.7	7.8	8.3	9.2	10.1	11.0	11.9	17.7
55°	6.6	6.6	6.7	6.8	6.8	7.2	7.9	8.6	9.3	10.0	15.1
57.5°	6.0	6.0	6.0	6.0	6.0	6.3	6.8	7.3	7.8	8.3	12.6
60°	5.4	5.4	5.4	5.3	5.3	5.5	5.8	6.2	6.5	6.9	10.5
62.5°	5.1	5.1	4.9	4.9	4.8	4.8	5.0	5.2	5.4	5.6	8.6
65°	4.9	4.7	4.6	4.5	4.3	4.3	4.4	4.5	4.5	4.6	7.0
67.5°	4.4	4.3	4.2	4.1	3.9	3.8	3.8	3.8	3.7	3.7	5.5
70°	4.0	3.9	3.7	3.6	3.5	3.4	3.2	3.1	3.0	2.9	4.3
72.5°	3.6	3.4	3.3	3.1	2.9	2.8	2.7	2.5	2.4	2.3	3.3
75°	2.9	2.8	2.7	2.7	2.6	2.5	2.3	2.2	2.0	1.9	2.5
77.5°	2.3	2.2	2.2	2.1	2.0	1.9	1.8	1.7	1.5	1.4	1.9
80°	1.9	1.8	1.7	1.7	1.6	1.5	1.4	1.3	1.1	1.0	1.2
82.5°	1.3	1.3	1.2	1.2	1.2	1.1	1.0	0.9	0.8	0.7	0.8
85°	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.5	0.5	0.4	0.5
87.5°	0.4	0.4	0.4	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°	392.9	392.9	392.9	392.9	392.9	392.9	392.9	392.9
0.5°	392.3	392.4	392.4	392.5	392.5	392.5	392.6	392.6
1°	391.4	391.6	391.8	391.9	392.0	392.1	392.2	392.3
1.5°	390.0	390.4	390.8	391.1	391.4	391.6	391.8	392.0
2°	387.9	388.7	389.5	390.1	390.4	390.8	391.1	391.5
2.5°	385.4	386.7	388.0	388.8	389.3	389.7	390.1	390.6
3°	382.5	384.3	386.0	387.2	387.8	388.5	389.1	389.7
3.5°	378.9	381.0	383.1	384.7	385.7	386.8	387.8	388.9
4°	375.1	377.8	380.6	382.7	383.9	385.2	386.5	387.7
4.5°	370.9	374.4	377.9	380.3	381.8	383.3	384.8	386.3
5°	366.3	370.5	374.7	377.7	379.5	381.4	383.3	385.2
5.5°	361.4	366.3	371.3	374.8	377.0	379.1	381.3	383.5
6°	356.3	362.0	367.6	371.7	374.2	376.7	379.2	381.7
6.5°	350.8	357.2	363.6	368.2	371.2	374.1	377.1	380.0
7°	345.4	352.5	359.7	364.9	368.2	371.5	374.8	378.0
7.5°	339.5	347.4	355.2	361.0	364.7	368.4	372.1	375.7
8°	333.4	342.1	350.7	357.1	361.2	365.4	369.6	373.7
8.5°	327.2	336.6	346.0	353.0	357.6	362.2	366.9	371.5
9°	320.7	330.9	341.1	348.7	353.7	358.8	363.8	368.9
9.5°	314.1	325.1	336.1	344.3	349.8	355.3	360.8	366.3
10°	307.4	319.2	331.0	339.8	345.8	351.8	357.8	363.7
10.5°	300.8	313.4	325.9	335.4	341.8	348.3	354.7	361.2
11°	294.0	307.4	320.6	330.8	337.7	344.7	351.6	358.6
11.5°	287.3	301.2	315.2	325.9	333.4	340.8	348.3	355.7
12°	280.6	295.2	309.7	321.0	328.9	336.8	344.7	352.6
12.5°	273.9	289.2	304.4	316.2	324.5	332.8	341.1	349.4
13°	267.2	283.1	299.0	311.4	320.1	328.8	337.6	346.3
13.5°	260.3	276.9	293.4	306.3	315.5	324.8	334.0	343.2
14°	253.5	270.8	288.1	301.5	311.1	320.6	330.2	339.7
14.5°	246.1	264.2	282.2	296.3	306.4	316.5	326.5	336.6
15°	239.3	258.1	276.8	291.4	301.8	312.3	322.7	333.2
16°	226.1	245.7	265.4	280.8	292.1	303.4	314.7	326.0
17°	213.2	233.6	254.0	270.2	282.2	294.2	306.3	318.3
18°	200.2	221.4	242.5	259.4	272.1	284.8	297.6	310.3
19°	188.4	209.9	231.4	248.8	262.1	275.4	288.7	302.0
20°	177.1	198.9	220.7	238.5	252.2	266.0	279.7	293.4
22.5°	152.0	173.6	195.3	213.2	227.4	241.6	255.8	270.0
25°	130.4	151.2	172.1	189.9	204.5	219.1	233.7	248.3
27.5°	111.8	131.2	150.7	167.6	181.9	196.2	210.6	224.9
30°	96.3	114.1	131.8	147.5	161.1	174.6	188.2	201.7
32.5°	83.1	99.1	115.2	129.5	142.0	154.5	167.0	179.4
35°	71.6	86.1	100.6	113.4	124.6	135.7	146.9	158.0
37.5°	61.3	74.4	87.5	98.9	108.8	118.6	128.5	138.3
40°	52.3	63.9	75.6	85.7	94.4	103.0	111.7	120.3
42.5°	44.5	54.8	65.1	74.1	81.6	89.2	96.7	104.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
45°	37.9	47.0	56.1	63.9	70.5	77.1	83.7	90.3
47.5°	32.3	40.2	48.1	54.9	60.7	66.5	72.2	78.0
50°	27.7	34.5	41.3	47.2	52.3	57.3	62.4	67.4
52.5°	23.6	29.5	35.3	40.5	45.1	49.5	54.1	58.6
55°	20.1	25.1	30.2	34.8	38.9	43.1	47.3	51.4
57.5°	16.9	21.2	25.5	29.7	33.5	37.4	41.3	45.1
60°	14.1	17.7	21.3	25.0	28.7	32.3	36.0	39.7
62.5°	11.6	14.6	17.6	20.9	24.5	28.0	31.6	35.1
65°	9.4	11.8	14.2	17.1	20.5	23.8	27.2	30.6
67.5°	7.4	9.2	11.1	13.6	16.8	19.9	23.1	26.3
70°	5.7	7.1	8.6	10.7	13.4	16.2	18.9	21.7
72.5°	4.4	5.4	6.5	8.1	10.3	12.5	14.7	16.9
75°	3.3	3.9	4.7	5.8	7.5	9.2	10.9	12.6
77.5°	2.3	2.8	3.2	4.0	5.1	6.3	7.4	8.6
80°	1.5	1.7	1.9	2.4	3.1	3.9	4.7	5.4
82.5°	0.9	1.0	1.1	1.3	1.7	2.1	2.5	2.9
85°	0.5	0.5	0.5	0.7	0.9	1.1	1.2	1.4
87.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)