

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: P273365

Luminaire Tested: **0.03-3W-840-10-ID-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P273365
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: 0.03-3W-840-10-ID-STD-UNV-AN-3F0
Description: iO LIGHTING SERIES .75 LINEAR LED LUMINAIRE, 10 DEGREE OPTIC.
HIGH OUTPUT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 600.8 lumens
Efficiency: N/A
Efficacy: 48.1 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

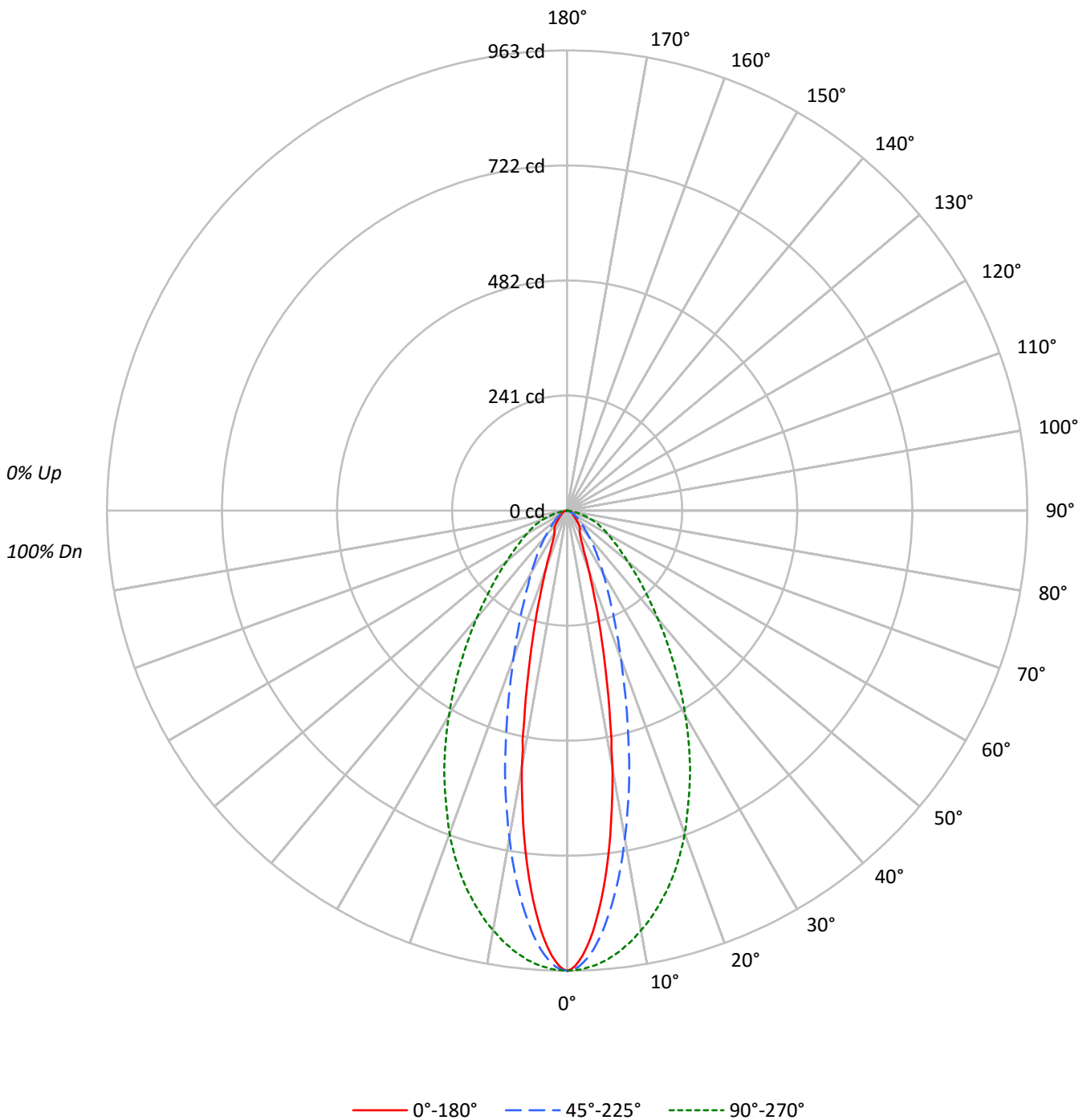
Input Watts (W): 12.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	75833	75833	75833
5°	64663	69342	74629
10°	43594	55634	71287
15°	22838	40338	66575
20°	10858	27405	60274
25°	6081	18868	52877
30°	4773	13564	44955
35°	4479	10034	37234
40°	3813	7307	30308
45°	3006	5422	24651
50°	2486	4201	20246
55°	2210	3363	17309
60°	2094	2645	15337
65°	2217	2086	13972
70°	2256	1611	12246
75°	2129	1399	9369
80°	2086	1133	6030
85°	1626	994	3162



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.3	13.0
10°-20°	144.2	24.0
20°-30°	127.4	21.2
30°-40°	99.6	16.6
40°-50°	68.6	11.4
50°-60°	43.6	7.3
60°-70°	25.7	4.3
70°-80°	11.3	1.9
80°-90°	2.2	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°	349.9	58.2
0°-40°	449.4	74.8
0°-60°	561.6	93.5
0°-90°	600.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	600.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	963	963	963	963	963	
5°	818	836	877	922	944	69
15°	280	341	495	696	817	79
25°	70	98	217	444	609	35
35°	47	51	104	262	387	29
45°	27	30	49	147	221	21
55°	16	17	24	80	126	15
65°	12	11	11	38	75	12
75°	7	6	5	13	31	8
85°	2	2	1	1	4	2
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°	963.2	963.2	963.2	963.2	963.2	963.2	963.2	963.2	963.2	963.2	963.2
0.5°	959.7	959.4	959.0	958.8	958.4	958.6	959.3	960.0	960.7	961.4	961.6
1°	953.4	953.3	953.2	953.1	953.1	953.6	954.9	956.1	957.4	958.6	959.1
1.5°	943.2	943.6	944.0	944.4	944.7	945.9	948.0	950.0	952.0	954.1	955.0
2°	931.3	932.0	932.7	933.4	934.1	935.8	938.6	941.5	944.3	947.1	949.0
2.5°	916.6	918.0	919.4	920.8	922.2	924.6	928.1	931.6	935.1	938.6	941.7
3°	900.8	902.4	904.1	905.7	907.3	910.5	915.2	919.9	924.5	929.2	933.5
3.5°	882.3	884.4	886.5	888.6	890.7	894.7	900.6	906.5	912.5	918.3	923.5
4°	862.3	864.9	867.4	870.0	872.6	877.4	884.5	891.6	898.7	905.7	912.6
4.5°	840.6	843.8	847.0	850.2	853.3	859.1	867.4	875.7	884.1	892.4	900.9
5°	818.2	821.9	825.7	829.4	833.1	839.7	849.1	858.5	868.0	877.4	887.7
5.5°	794.3	798.6	802.9	807.2	811.4	818.9	829.6	840.3	850.9	861.6	873.7
6°	769.5	774.4	779.3	784.2	789.1	797.6	809.6	821.7	833.8	845.8	859.7
6.5°	743.2	748.8	754.4	760.0	765.6	775.2	788.6	802.1	815.6	829.0	844.6
7°	715.9	722.1	728.4	734.6	740.8	751.4	766.5	781.5	796.5	811.5	829.1
7.5°	688.2	695.0	701.7	708.5	715.3	727.0	743.7	760.3	777.0	793.6	813.0
8°	660.6	667.8	675.1	682.3	689.5	702.2	720.4	738.7	756.9	775.1	796.2
8.5°	632.2	640.0	647.7	655.5	663.3	677.1	696.8	716.5	736.1	755.8	778.9
9°	604.2	612.5	620.8	629.2	637.5	652.2	673.2	694.2	715.2	736.2	761.2
9.5°	575.1	583.2	591.3	599.4	607.5	623.2	646.4	669.7	693.0	716.2	743.1
10°	545.3	554.2	562.9	571.7	580.5	597.2	621.9	646.6	671.3	695.9	724.8
10.5°	507.9	519.0	530.1	541.3	552.4	571.0	597.3	623.5	649.8	676.0	706.7
11°	487.5	497.1	506.7	516.3	525.9	544.5	572.3	600.1	627.8	655.7	688.3
11.5°	451.8	463.4	475.0	486.6	498.2	518.6	548.0	577.3	606.7	636.0	670.2
12°	424.5	436.4	448.3	460.2	472.1	493.4	524.2	554.9	585.7	616.4	652.2
12.5°	398.2	410.3	422.5	434.7	446.8	468.8	500.8	532.9	564.8	596.8	634.1
13°	372.3	384.6	396.9	409.2	421.5	444.2	477.4	510.5	543.7	576.8	615.9
13.5°	347.4	359.9	372.4	384.8	397.2	420.5	454.6	488.7	522.8	556.9	597.5
14°	324.0	336.5	349.1	361.6	374.1	397.7	432.4	467.2	501.8	536.6	579.0
14.5°	301.9	314.3	326.6	339.0	351.4	375.0	409.9	444.7	479.6	514.5	558.8
15°	280.2	292.5	304.8	317.1	329.4	353.3	388.6	424.1	459.4	494.9	540.8
16°	241.3	253.4	265.4	277.5	289.6	313.7	349.8	385.9	422.0	458.1	506.2
17°	206.3	218.0	229.6	241.3	253.0	277.0	313.5	349.9	386.3	422.7	472.7
18°	176.2	187.3	198.4	209.6	220.7	244.2	280.0	315.8	351.6	387.4	439.1
19°	151.3	161.2	171.1	180.9	190.8	213.6	249.2	284.9	320.5	356.2	408.9
20°	129.6	139.3	148.9	158.5	168.2	190.1	224.4	258.6	292.9	327.1	380.6
22.5°	91.1	98.3	105.7	113.0	120.3	139.8	171.4	203.0	234.6	266.2	319.4
25°	70.0	75.0	80.0	85.0	89.9	106.3	134.0	161.7	189.4	217.2	268.4
27.5°	58.8	61.9	64.9	67.9	71.0	84.3	107.9	131.5	155.0	178.6	226.3
30°	52.5	54.2	56.0	57.6	59.4	70.1	89.9	109.7	129.4	149.2	192.7
32.5°	49.4	50.1	50.8	51.5	52.2	60.5	76.6	92.6	108.6	124.7	164.1
35°	46.6	46.9	47.2	47.5	47.8	54.2	66.8	79.3	91.8	104.4	140.0
37.5°	42.7	43.1	43.5	43.9	44.3	49.1	58.4	67.7	76.9	86.2	118.2
40°	37.1	37.8	38.5	39.2	39.9	43.7	50.6	57.4	64.2	71.1	99.7
42.5°	31.5	32.3	33.1	33.8	34.6	37.6	42.9	48.1	53.3	58.5	83.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
45°	27.0	27.5	28.1	28.6	29.1	31.6	35.9	40.1	44.4	48.7	70.9
47.5°	23.1	23.6	24.0	24.5	25.0	26.9	30.3	33.8	37.2	40.6	60.0
50°	20.3	20.7	21.1	21.5	21.9	23.4	26.1	28.9	31.6	34.3	51.1
52.5°	18.2	18.4	18.7	18.9	19.1	20.4	22.6	24.7	26.9	29.1	43.5
55°	16.1	16.3	16.4	16.6	16.7	17.7	19.4	21.1	22.8	24.5	36.9
57.5°	14.7	14.7	14.7	14.7	14.7	15.3	16.6	17.8	19.1	20.3	30.9
60°	13.3	13.2	13.2	13.1	13.0	13.4	14.2	15.1	16.0	16.8	25.7
62.5°	12.6	12.4	12.1	11.9	11.7	11.8	12.3	12.7	13.2	13.7	21.1
65°	11.9	11.6	11.3	11.0	10.6	10.6	10.7	10.9	11.1	11.2	17.1
67.5°	10.9	10.6	10.2	9.9	9.6	9.4	9.3	9.2	9.2	9.1	13.6
70°	9.8	9.5	9.2	8.9	8.5	8.3	7.9	7.6	7.3	7.0	10.5
72.5°	8.8	8.3	8.0	7.6	7.2	6.9	6.5	6.2	5.9	5.6	8.2
75°	7.0	6.9	6.7	6.5	6.4	6.1	5.7	5.3	5.0	4.6	6.2
77.5°	5.6	5.5	5.3	5.1	5.0	4.8	4.4	4.1	3.8	3.5	4.6
80°	4.6	4.4	4.3	4.1	3.9	3.7	3.4	3.1	2.7	2.5	3.0
82.5°	3.2	3.1	3.0	2.9	2.9	2.7	2.5	2.2	2.0	1.8	2.0
85°	1.8	1.8	1.8	1.8	1.8	1.7	1.5	1.3	1.2	1.1	1.1
87.5°	1.1	1.0	0.9	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.6
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°	963.2	963.2	963.2	963.2	963.2	963.2	963.2	963.2
0.5°	961.7	961.9	962.0	962.2	962.3	962.3	962.4	962.5
1°	959.5	960.0	960.5	960.9	961.1	961.3	961.6	961.8
1.5°	956.1	957.1	958.1	958.9	959.5	959.9	960.5	961.1
2°	951.0	952.9	954.8	956.2	957.1	958.0	958.8	959.7
2.5°	944.9	948.0	951.1	953.2	954.3	955.4	956.4	957.6
3°	937.7	942.0	946.3	949.2	950.8	952.4	953.9	955.5
3.5°	928.8	934.0	939.2	943.1	945.7	948.2	950.8	953.4
4°	919.5	926.3	933.1	938.1	941.2	944.3	947.5	950.6
4.5°	909.4	917.8	926.3	932.4	936.1	939.8	943.4	947.1
5°	897.9	908.2	918.5	925.9	930.5	935.1	939.6	944.3
5.5°	885.9	898.0	910.1	918.9	924.1	929.5	934.7	940.1
6°	873.6	887.4	901.2	911.3	917.4	923.5	929.7	935.8
6.5°	860.1	875.7	891.3	902.7	909.9	917.1	924.4	931.6
7°	846.7	864.3	881.8	894.7	902.7	910.7	918.8	926.7
7.5°	832.2	851.6	870.8	885.0	894.0	903.1	912.1	921.1
8°	817.4	838.6	859.8	875.5	885.6	895.8	906.0	916.2
8.5°	802.1	825.2	848.3	865.5	876.8	888.1	899.4	910.6
9°	786.2	811.2	836.2	854.8	867.2	879.6	891.9	904.3
9.5°	770.1	797.0	824.0	844.2	857.6	871.1	884.6	898.0
10°	753.7	782.6	811.4	833.2	847.8	862.4	877.1	891.7
10.5°	737.5	768.2	799.0	822.2	838.0	853.8	869.6	885.4
11°	720.9	753.5	786.1	811.0	828.0	845.0	862.1	879.1
11.5°	704.4	738.5	772.7	799.0	817.3	835.5	853.8	872.1
12°	687.9	723.6	759.3	786.9	806.3	825.7	845.0	864.4
12.5°	671.6	708.9	746.2	775.2	795.5	815.9	836.3	856.7
13°	655.0	694.0	733.1	763.4	784.8	806.2	827.6	849.0
13.5°	638.1	678.8	719.4	751.0	773.5	796.2	818.7	841.3
14°	621.4	663.8	706.2	739.2	762.6	786.0	809.5	832.9
14.5°	603.3	647.6	691.9	726.5	751.1	775.9	800.5	825.2
15°	586.7	632.7	678.6	714.4	739.9	765.6	791.1	816.8
16°	554.3	602.4	650.5	688.4	716.1	743.8	771.5	799.3
17°	522.7	572.6	622.6	662.4	691.9	721.4	750.8	780.3
18°	490.9	542.7	594.4	635.9	667.1	698.3	729.5	760.7
19°	461.8	514.5	567.3	610.0	642.6	675.2	707.8	740.4
20°	434.1	487.5	541.0	584.6	618.3	652.0	685.7	719.4
22.5°	372.5	425.7	478.9	522.8	557.6	592.4	627.1	662.0
25°	319.6	370.8	422.0	465.5	501.3	537.1	572.9	608.7
27.5°	274.0	321.7	369.4	410.9	446.0	481.1	516.2	551.3
30°	236.2	279.7	323.2	361.6	394.9	428.1	461.3	494.5
32.5°	203.6	243.1	282.5	317.5	348.1	378.8	409.3	439.9
35°	175.5	211.1	246.6	278.1	305.4	332.7	360.0	387.4
37.5°	150.3	182.3	214.4	242.5	266.7	290.8	314.9	339.0
40°	128.3	156.8	185.3	210.2	231.4	252.6	273.7	294.9
42.5°	109.1	134.4	159.6	181.6	200.1	218.6	237.2	255.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
45°	93.0	115.2	137.4	156.6	172.8	189.0	205.2	221.4
47.5°	79.2	98.6	117.8	134.6	148.7	162.9	177.1	191.2
50°	67.8	84.5	101.3	115.8	128.2	140.6	152.9	165.3
52.5°	57.9	72.3	86.6	99.4	110.5	121.5	132.5	143.6
55°	49.2	61.6	74.0	85.3	95.5	105.7	115.9	126.1
57.5°	41.5	52.0	62.6	72.7	82.2	91.7	101.2	110.7
60°	34.5	43.4	52.3	61.2	70.3	79.3	88.3	97.4
62.5°	28.4	35.9	43.2	51.3	60.0	68.7	77.5	86.2
65°	23.0	28.9	34.9	42.0	50.2	58.4	66.7	75.0
67.5°	18.1	22.6	27.2	33.3	41.1	48.9	56.7	64.4
70°	14.0	17.5	21.0	26.1	32.9	39.7	46.4	53.2
72.5°	10.7	13.3	15.9	19.8	25.2	30.6	35.9	41.3
75°	8.0	9.7	11.4	14.3	18.4	22.6	26.7	30.8
77.5°	5.7	6.8	7.8	9.8	12.6	15.4	18.2	21.0
80°	3.6	4.1	4.6	5.8	7.7	9.6	11.4	13.3
82.5°	2.2	2.5	2.7	3.3	4.2	5.1	6.1	7.0
85°	1.2	1.3	1.3	1.6	2.1	2.6	3.0	3.5
87.5°	0.6	0.5	0.4	0.4	0.5	0.6	0.6	0.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)