

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: P273366

Luminaire Tested: **0.03-3W-840-25-ID-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P273366  
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: 0.03-3W-840-25-ID-STD-UNV-AN-3F0  
Description: iO LIGHTING SERIES .75 LINEAR LED LUMINAIRE, 25 DEGREE OPTIC.  
HIGH OUTPUT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 712.2 lumens  
Efficiency: N/A  
Efficacy: 57.0 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

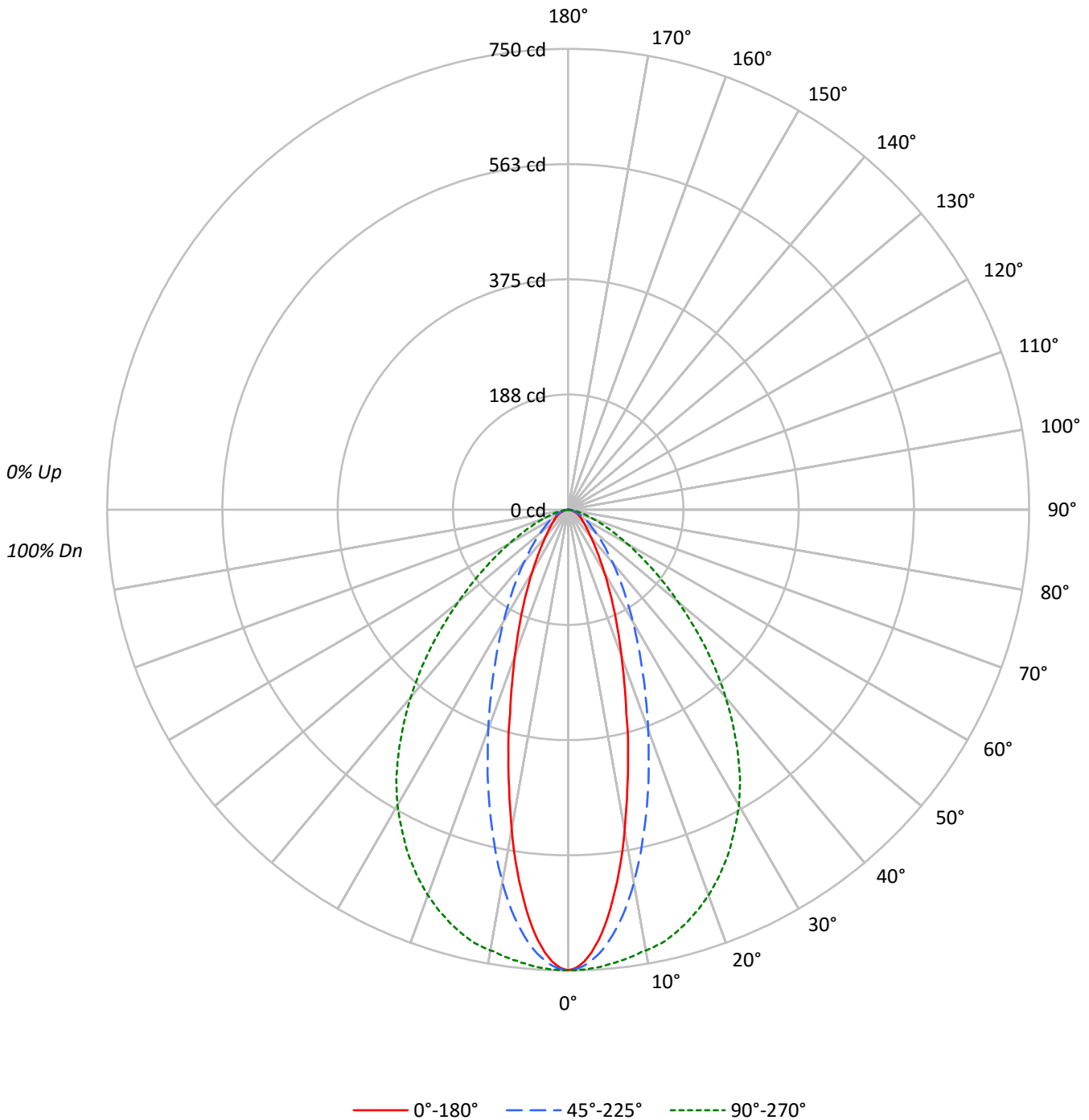
Input Watts (W): 12.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	59008	59008	59008
5°	53757	56191	58736
10°	42283	49222	58240
15°	30492	40420	57495
20°	21247	31812	55934
25°	15028	24645	53607
30°	10636	19100	50500
35°	7679	14811	46182
40°	5827	11521	40966
45°	4754	9130	35017
50°	4030	7288	28575
55°	3651	6053	22689
60°	3417	5070	17431
65°	3260	4434	13171
70°	2900	3867	9829
75°	2768	3407	7453
80°	2222	2856	5713
85°	1897	1897	3794



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.0	9.1
10°-20°	143.8	20.2
20°-30°	155.3	21.8
30°-40°	133.3	18.7
40°-50°	98.5	13.8
50°-60°	62.9	8.8
60°-70°	34.8	4.9
70°-80°	15.3	2.1
80°-90°	3.3	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°	364.1	51.1
0°-40°	497.4	69.8
0°-60°	658.8	92.5
0°-90°	712.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	712.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	750	750	750	750	750	
5°	680	689	711	733	743	60
15°	374	406	496	628	705	103
25°	173	200	284	472	617	80
35°	80	96	154	320	480	51
45°	43	50	82	199	314	33
55°	27	29	44	109	165	24
65°	18	18	24	52	71	17
75°	9	9	11	19	24	9
85°	2	2	2	4	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°	749.5	749.5	749.5	749.5	749.5	749.5	749.5	749.5	749.5	749.5	749.5
0.5°	748.1	748.3	748.4	748.6	748.8	748.8	748.8	748.8	748.8	748.8	749.0
1°	745.3	745.5	745.6	745.8	746.0	746.2	746.5	746.8	747.1	747.4	747.7
1.5°	741.1	741.4	741.8	742.0	742.4	742.8	743.4	744.1	744.7	745.3	745.8
2°	736.2	736.5	736.8	737.1	737.5	738.2	739.2	740.4	741.4	742.5	743.3
2.5°	729.2	729.8	730.5	731.1	731.7	732.8	734.3	735.9	737.5	739.0	740.4
3°	721.5	722.3	723.0	723.8	724.6	726.0	728.0	730.1	732.1	734.1	736.1
3.5°	712.4	713.5	714.6	715.7	716.7	718.6	721.3	723.9	726.6	729.2	731.9
4°	702.6	703.9	705.1	706.3	707.6	710.0	713.6	717.2	720.7	724.3	727.6
4.5°	692.1	693.5	694.9	696.3	697.7	700.6	704.9	709.3	713.7	718.0	722.1
5°	680.2	681.9	683.6	685.3	687.0	690.5	695.6	700.7	705.9	711.0	716.0
5.5°	667.6	669.6	671.6	673.7	675.7	679.6	685.6	691.5	697.4	703.3	709.4
6°	653.6	656.1	658.5	661.1	663.5	668.2	675.1	681.9	688.7	695.6	702.6
6.5°	639.5	642.2	644.9	647.5	650.1	655.5	663.4	671.3	679.3	687.2	695.3
7°	624.8	627.8	630.7	633.7	636.7	642.6	651.5	660.4	669.2	678.1	687.3
7.5°	610.1	613.4	616.6	619.9	623.2	629.7	639.5	649.4	659.2	669.0	679.3
8°	594.0	597.6	601.2	604.7	608.3	615.6	626.5	637.4	648.2	659.2	670.7
8.5°	578.6	582.3	586.1	589.8	593.5	601.3	613.1	625.0	636.8	648.7	661.4
9°	562.5	566.6	570.6	574.6	578.7	587.1	599.8	612.7	625.4	638.1	652.3
9.5°	545.7	550.2	554.7	559.2	563.8	572.9	586.5	600.3	613.9	627.6	643.1
10°	528.9	533.7	538.5	543.4	548.2	557.8	572.3	586.8	601.2	615.7	632.7
10.5°	512.1	517.0	522.0	527.0	532.0	542.2	557.6	573.0	588.4	603.8	622.3
11°	495.2	501.0	506.7	512.6	518.3	529.1	545.0	560.9	576.7	592.6	612.4
11.5°	479.1	485.0	491.0	496.9	502.8	514.1	530.8	547.4	564.0	580.7	601.9
12°	463.0	469.1	475.1	481.2	487.3	499.0	516.5	533.9	551.4	568.8	591.4
12.5°	447.6	453.7	459.7	465.8	471.9	483.9	501.8	519.7	537.6	555.5	579.8
13°	432.2	438.4	444.7	450.9	457.1	469.5	488.0	506.5	525.1	543.6	569.1
13.5°	416.8	423.2	429.5	435.9	442.3	455.1	474.2	493.4	512.6	531.7	558.4
14°	402.1	408.5	414.8	421.2	427.6	440.7	460.4	480.3	500.0	519.8	547.6
14.5°	388.1	394.3	400.5	406.8	413.0	426.3	446.7	467.1	487.5	507.9	537.0
15°	374.1	380.4	386.8	393.2	399.6	413.2	433.8	454.5	475.2	495.9	526.1
16°	343.2	350.4	357.5	364.7	371.9	386.2	407.7	429.2	450.6	472.1	504.4
17°	318.7	325.7	332.7	339.7	346.7	361.2	383.0	404.7	426.5	448.3	482.6
18°	294.9	301.8	308.6	315.4	322.3	336.7	358.4	380.2	402.0	423.8	460.1
19°	273.2	279.9	286.6	293.3	300.0	314.2	336.0	357.8	379.6	401.4	439.2
20°	253.6	260.0	266.3	272.7	279.1	293.1	314.7	336.4	358.0	379.7	418.8
22.5°	209.4	215.2	220.9	226.7	232.5	245.8	266.7	287.5	308.4	329.2	370.5
25°	173.0	178.3	183.6	188.9	194.2	206.5	225.8	245.1	264.4	283.7	326.0
27.5°	142.2	147.0	151.9	156.7	161.5	172.9	190.7	208.7	226.5	244.5	286.5
30°	117.0	121.2	125.4	129.6	133.8	144.2	160.6	177.2	193.6	210.1	251.1
32.5°	96.0	99.7	103.5	107.2	110.9	120.3	135.2	150.1	165.1	180.0	219.3
35°	79.9	82.9	86.1	89.2	92.3	100.6	114.0	127.3	140.7	154.1	191.2
37.5°	67.2	69.8	72.2	74.7	77.2	84.3	96.2	108.0	119.9	131.7	166.1
40°	56.7	58.9	61.1	63.3	65.4	71.6	81.7	91.8	102.0	112.1	143.8
42.5°	49.0	50.6	52.1	53.7	55.3	60.5	69.3	78.2	87.1	96.0	124.9



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
45°	42.7	44.0	45.3	46.4	47.7	52.0	59.5	67.0	74.5	82.0	107.9
47.5°	37.1	38.2	39.3	40.4	41.5	45.1	51.3	57.6	63.8	70.0	93.1
50°	32.9	33.7	34.5	35.2	36.0	39.0	44.1	49.2	54.4	59.5	79.8
52.5°	29.4	30.1	30.7	31.3	31.9	34.3	38.5	42.7	46.9	51.1	68.4
55°	26.6	27.1	27.5	28.0	28.5	30.4	33.8	37.3	40.7	44.1	58.8
57.5°	24.5	24.7	24.8	25.0	25.1	26.6	29.4	32.2	35.0	37.8	49.9
60°	21.7	21.9	22.0	22.2	22.3	23.5	25.7	27.9	30.1	32.2	42.3
62.5°	19.6	19.8	19.9	20.1	20.2	21.2	22.9	24.6	26.3	28.0	36.1
65°	17.5	17.5	17.5	17.5	17.5	18.2	19.6	21.0	22.4	23.8	30.2
67.5°	15.4	15.4	15.4	15.4	15.4	16.0	17.0	18.1	19.2	20.3	25.1
70°	12.6	12.7	12.9	13.1	13.2	13.7	14.5	15.3	16.0	16.8	20.5
72.5°	10.5	10.6	10.8	11.0	11.1	11.5	12.1	12.7	13.4	14.0	16.7
75°	9.1	9.1	9.1	9.1	9.1	9.3	9.8	10.3	10.7	11.2	13.1
77.5°	7.0	7.0	7.0	7.0	7.0	7.1	7.5	7.8	8.1	8.4	9.8
80°	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.7	6.0	6.3	7.1
82.5°	3.5	3.5	3.5	3.5	3.5	3.6	3.7	3.9	4.1	4.2	4.7
85°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.4
87.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
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°	749.5	749.5	749.5	749.5	749.5	749.5	749.5	749.5
0.5°	749.1	749.3	749.5	749.5	749.5	749.5	749.5	749.5
1°	748.1	748.3	748.7	748.9	749.0	749.2	749.4	749.5
1.5°	746.2	746.7	747.2	747.6	747.9	748.2	748.5	748.8
2°	744.1	744.8	745.6	746.3	746.9	747.6	748.2	748.8
2.5°	741.8	743.2	744.6	745.6	746.2	746.9	747.5	748.1
3°	738.2	740.2	742.2	743.7	744.6	745.5	746.5	747.4
3.5°	734.5	737.1	739.8	741.8	743.0	744.2	745.5	746.7
4°	730.8	734.1	737.4	739.8	741.3	742.9	744.5	746.0
4.5°	726.1	730.1	734.2	737.1	739.0	740.9	742.7	744.6
5°	720.9	725.9	730.9	734.5	736.7	738.9	741.1	743.2
5.5°	715.4	721.5	727.6	731.9	734.3	736.8	739.3	741.8
6°	709.6	716.6	723.6	728.7	731.8	734.9	738.0	741.1
6.5°	703.4	711.5	719.5	725.3	728.7	732.2	735.6	739.0
7°	696.4	705.6	714.8	721.5	725.7	729.9	734.1	738.3
7.5°	689.5	699.8	710.1	717.5	722.2	726.9	731.5	736.2
8°	682.2	693.7	705.3	713.7	718.9	724.2	729.5	734.8
8.5°	674.2	687.0	699.7	709.1	715.2	721.3	727.3	733.4
9°	666.4	680.7	694.8	705.2	711.7	718.2	724.8	731.3
9.5°	658.5	673.9	689.3	700.6	707.7	714.9	722.1	729.2
10°	649.6	666.7	683.6	696.1	704.2	712.3	720.4	728.5
10.5°	640.9	659.4	677.9	691.6	700.5	709.4	718.2	727.1
11°	632.1	651.9	671.7	686.5	696.3	706.1	715.9	725.7
11.5°	623.0	644.2	665.4	681.3	691.9	702.5	713.0	723.6
12°	613.9	636.5	659.1	676.1	687.7	699.2	710.7	722.2
12.5°	604.0	628.3	652.6	670.9	683.2	695.5	707.8	720.1
13°	594.6	620.1	645.7	665.0	678.1	691.2	704.2	717.3
13.5°	585.2	612.0	638.8	659.1	673.0	686.8	700.6	714.5
14°	575.5	603.3	631.2	652.6	667.4	682.1	696.9	711.7
14.5°	566.1	595.2	624.3	646.6	662.2	677.8	693.3	708.9
15°	556.3	586.5	616.7	640.0	656.4	672.7	689.1	705.4
16°	536.6	568.8	601.0	626.2	644.5	662.7	680.9	699.1
17°	516.8	551.1	585.3	612.3	632.1	651.9	671.6	691.4
18°	496.4	532.6	568.9	597.8	619.4	641.1	662.7	684.4
19°	477.0	514.9	552.7	583.2	606.4	629.6	652.8	676.0
20°	457.8	496.9	535.9	568.0	592.8	617.8	642.6	667.6
22.5°	411.7	453.0	494.3	529.2	557.8	586.5	615.1	643.8
25°	368.4	410.7	453.1	490.1	521.9	553.6	585.4	617.1
27.5°	328.5	370.6	412.6	450.6	484.5	518.4	552.4	586.3
30°	292.0	332.9	373.9	412.3	448.1	483.9	519.7	555.5
32.5°	258.5	297.7	336.9	374.8	411.2	447.6	484.0	520.5
35°	228.2	265.3	302.3	338.5	374.1	409.6	445.0	480.5
37.5°	200.5	234.9	269.3	303.5	337.6	371.8	405.8	439.9
40°	175.6	207.3	239.1	271.0	302.8	334.8	366.6	398.6
42.5°	153.9	182.8	211.8	240.8	269.7	298.6	327.6	356.6





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
45°	133.9	159.9	185.9	211.8	237.5	263.2	288.8	314.5
47.5°	116.1	139.2	162.2	184.7	206.6	228.6	250.6	272.5
50°	100.0	120.3	140.5	159.8	178.1	196.6	214.9	233.3
52.5°	85.7	103.0	120.3	136.5	151.8	167.0	182.3	197.5
55°	73.4	88.1	102.7	116.1	128.4	140.7	153.0	165.3
57.5°	62.1	74.3	86.4	97.3	107.0	116.6	126.2	135.9
60°	52.5	62.6	72.7	81.4	88.8	96.0	103.4	110.7
62.5°	44.2	52.3	60.4	67.2	72.6	78.0	83.5	89.0
65°	36.6	42.9	49.3	54.6	58.6	62.6	66.7	70.7
67.5°	30.0	34.8	39.6	43.5	46.4	49.5	52.4	55.3
70°	24.3	28.0	31.7	34.6	36.6	38.7	40.7	42.7
72.5°	19.3	21.9	24.6	26.7	28.2	29.8	31.4	32.9
75°	14.9	16.8	18.7	20.2	21.2	22.3	23.4	24.5
77.5°	11.2	12.6	14.0	15.0	15.6	16.3	16.9	17.5
80°	7.8	8.6	9.4	10.1	10.7	11.3	12.0	12.6
82.5°	5.1	5.6	6.1	6.4	6.8	7.1	7.4	7.7
85°	2.7	3.0	3.4	3.6	3.7	3.9	4.1	4.2
87.5°	0.7	0.7	0.7	0.8	0.9	1.1	1.3	1.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)