

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: P273335

Luminaire Tested: **0.03-1W-830-10-ID-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P273335  
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-830-10-ID-STD-UNV-AN-3F0  
Description: iO LIGHTING SERIES .75 LINEAR LED LUMINAIRE, 10 DEGREE OPTIC.  
STANDARD OUTPUT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 235.7 lumens  
Efficiency: N/A  
Efficacy: 31.4 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

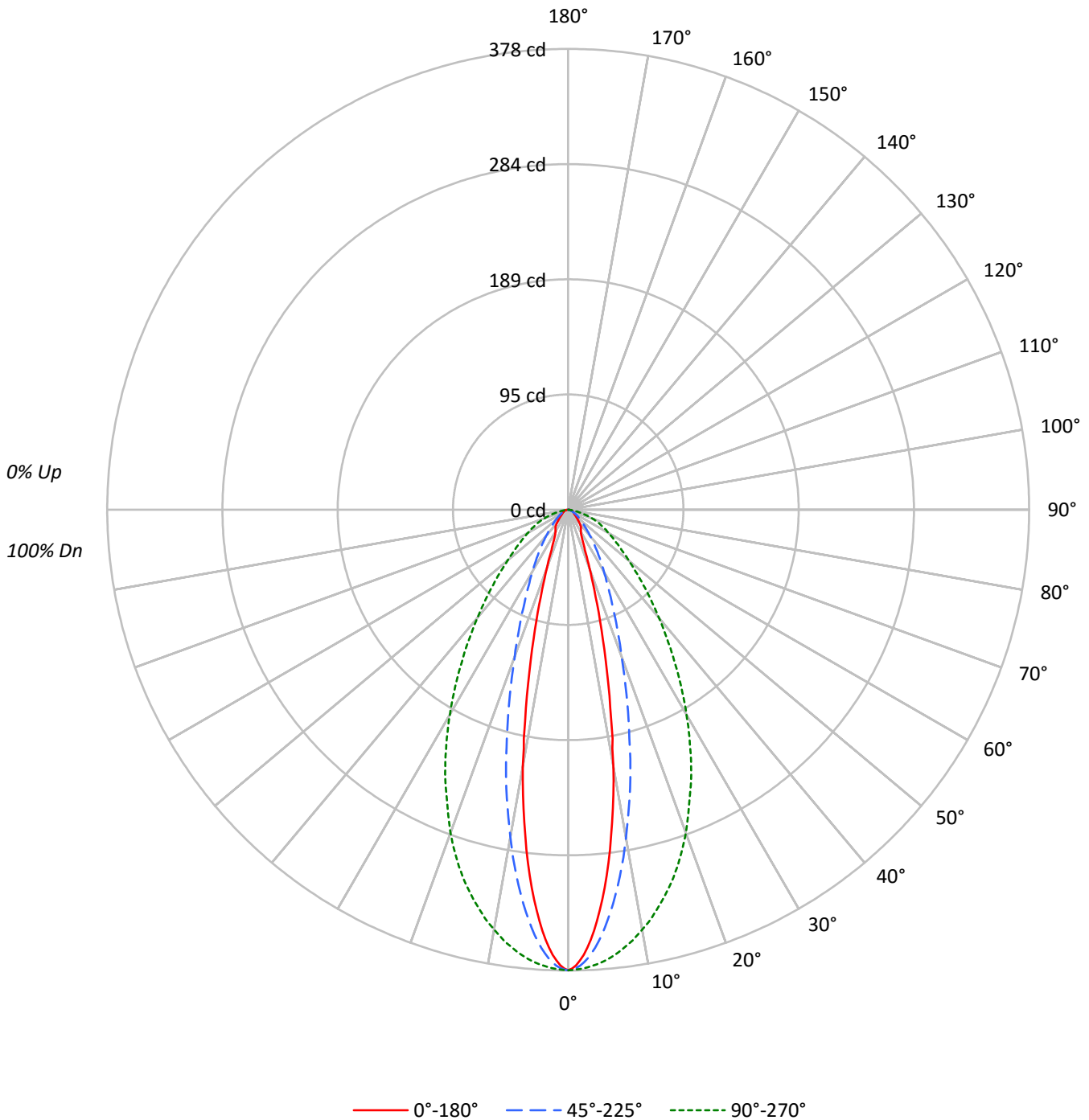
Input Watts (W): 7.5  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P273335

CATALOG NUMBER: 0.03-1W-830-10-ID-STD-UNV-AN-3F0

### Luminous Intensity Polar Plot





TEST NUMBER: P273335

CATALOG NUMBER: 0.03-1W-830-10-ID-STD-UNV-AN-3F0

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

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	29744	29744	29744
5°	25361	27195	29273
10°	17100	21825	27957
15°	8958	15821	26107
20°	4256	10749	23644
25°	2389	7401	20744
30°	1873	5318	17637
35°	1759	3931	14599
40°	1501	2867	11891
45°	1180	2127	9664
50°	980	1654	7937
55°	865	1318	6794
60°	819	1039	6015
65°	876	820	5477
70°	875	622	4811
75°	821	548	3681
80°	816	453	2358
85°	632	361	1265



TEST NUMBER: P273335

CATALOG NUMBER: 0.03-1W-830-10-ID-STD-UNV-AN-3F0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	30.7	13.0
10°-20°	56.6	24.0
20°-30°	50.0	21.2
30°-40°	39.0	16.6
40°-50°	26.9	11.4
50°-60°	17.1	7.3
60°-70°	10.1	4.3
70°-80°	4.4	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°	137.2	58.2
0°-40°	176.3	74.8
0°-60°	220.3	93.5
0°-90°	235.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	235.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	378	378	378	378	378	
5°	321	328	344	362	370	27
15°	110	134	194	273	320	31
25°	28	38	85	174	239	14
35°	18	20	41	103	152	11
45°	11	12	19	58	87	8
55°	6	7	10	31	50	6
65°	5	4	4	15	29	5
75°	3	2	2	5	12	3
85°	1	1	0	1	1	1
90°	0	0	0	0	0	



TEST NUMBER: P273335

CATALOG NUMBER: 0.03-1W-830-10-ID-STD-UNV-AN-3F0

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	377.8	377.8	377.8	377.8	377.8	377.8	377.8	377.8	377.8	377.8	377.8
0.5°	376.4	376.3	376.1	376.0	375.9	376.0	376.3	376.5	376.8	377.1	377.1
1°	373.9	373.9	373.9	373.8	373.8	374.0	374.5	375.0	375.5	376.0	376.2
1.5°	369.9	370.1	370.2	370.4	370.5	371.0	371.8	372.6	373.4	374.2	374.6
2°	365.3	365.5	365.8	366.1	366.4	367.1	368.2	369.3	370.4	371.5	372.2
2.5°	359.5	360.0	360.6	361.1	361.7	362.7	364.0	365.4	366.8	368.2	369.4
3°	353.3	353.9	354.6	355.2	355.9	357.1	358.9	360.8	362.6	364.4	366.1
3.5°	346.0	346.9	347.7	348.5	349.3	350.9	353.2	355.5	357.9	360.2	362.2
4°	338.2	339.2	340.2	341.2	342.2	344.1	346.9	349.7	352.5	355.2	357.9
4.5°	329.7	331.0	332.2	333.5	334.7	336.9	340.2	343.5	346.8	350.0	353.3
5°	320.9	322.4	323.8	325.3	326.7	329.3	333.0	336.7	340.4	344.1	348.2
5.5°	311.6	313.2	314.9	316.6	318.3	321.2	325.4	329.6	333.8	337.9	342.7
6°	301.8	303.7	305.6	307.6	309.5	312.8	317.5	322.3	327.0	331.8	337.2
6.5°	291.5	293.7	295.9	298.1	300.3	304.0	309.3	314.6	319.9	325.2	331.3
7°	280.8	283.2	285.7	288.1	290.6	294.7	300.6	306.5	312.4	318.3	325.2
7.5°	269.9	272.6	275.2	277.9	280.6	285.2	291.7	298.2	304.7	311.3	318.9
8°	259.1	261.9	264.8	267.6	270.4	275.4	282.6	289.7	296.9	304.0	312.3
8.5°	248.0	251.0	254.1	257.1	260.2	265.6	273.3	281.0	288.7	296.4	305.5
9°	237.0	240.2	243.5	246.8	250.0	255.8	264.0	272.3	280.5	288.8	298.6
9.5°	225.6	228.7	231.9	235.1	238.3	244.4	253.5	262.7	271.8	280.9	291.5
10°	213.9	217.3	220.8	224.2	227.7	234.2	243.9	253.6	263.3	273.0	284.3
10.5°	199.2	203.6	207.9	212.3	216.7	224.0	234.3	244.5	254.9	265.1	277.2
11°	191.2	195.0	198.7	202.5	206.2	213.6	224.5	235.4	246.3	257.2	270.0
11.5°	177.2	181.8	186.3	190.9	195.4	203.4	214.9	226.4	238.0	249.5	262.9
12°	166.5	171.2	175.8	180.5	185.2	193.5	205.6	217.7	229.7	241.8	255.8
12.5°	156.2	160.9	165.7	170.5	175.2	183.9	196.4	209.0	221.5	234.1	248.7
13°	146.0	150.9	155.7	160.5	165.3	174.2	187.2	200.2	213.3	226.2	241.6
13.5°	136.3	141.2	146.1	150.9	155.8	164.9	178.3	191.7	205.0	218.4	234.4
14°	127.1	132.0	136.9	141.8	146.7	156.0	169.6	183.2	196.8	210.5	227.1
14.5°	118.4	123.3	128.1	133.0	137.8	147.1	160.8	174.4	188.1	201.8	219.2
15°	109.9	114.7	119.5	124.4	129.2	138.6	152.4	166.3	180.2	194.1	212.1
16°	94.6	99.4	104.1	108.9	113.6	123.0	137.2	151.4	165.5	179.7	198.6
17°	80.9	85.5	90.1	94.6	99.2	108.7	122.9	137.2	151.5	165.8	185.4
18°	69.1	73.5	77.8	82.2	86.6	95.8	109.8	123.9	137.9	151.9	172.2
19°	59.3	63.2	67.1	71.0	74.8	83.8	97.8	111.7	125.7	139.7	160.4
20°	50.8	54.6	58.4	62.2	66.0	74.6	88.0	101.4	114.9	128.3	149.3
22.5°	35.7	38.6	41.5	44.3	47.2	54.8	67.2	79.6	92.0	104.4	125.3
25°	27.5	29.4	31.4	33.3	35.3	41.7	52.6	63.4	74.3	85.2	105.3
27.5°	23.1	24.3	25.5	26.6	27.8	33.1	42.3	51.6	60.8	70.1	88.8
30°	20.6	21.3	22.0	22.6	23.3	27.5	35.2	43.0	50.8	58.5	75.6
32.5°	19.4	19.6	19.9	20.2	20.5	23.7	30.0	36.3	42.6	48.9	64.4
35°	18.3	18.4	18.5	18.6	18.8	21.3	26.2	31.1	36.0	40.9	54.9
37.5°	16.8	16.9	17.1	17.2	17.4	19.3	22.9	26.5	30.2	33.8	46.4
40°	14.6	14.8	15.1	15.4	15.7	17.1	19.8	22.5	25.2	27.9	39.1
42.5°	12.4	12.7	13.0	13.3	13.6	14.8	16.8	18.8	20.9	22.9	32.9



TEST NUMBER: P273335

CATALOG NUMBER: 0.03-1W-830-10-ID-STD-UNV-AN-3F0

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
45°	10.6	10.8	11.0	11.2	11.4	12.4	14.1	15.7	17.4	19.1	27.8
47.5°	9.1	9.3	9.4	9.6	9.8	10.6	11.9	13.2	14.6	15.9	23.5
50°	8.0	8.1	8.3	8.4	8.6	9.2	10.2	11.3	12.4	13.5	20.0
52.5°	7.1	7.2	7.3	7.4	7.5	8.0	8.8	9.7	10.6	11.4	17.1
55°	6.3	6.4	6.4	6.5	6.6	6.9	7.6	8.3	9.0	9.6	14.5
57.5°	5.8	5.8	5.8	5.8	5.8	6.0	6.5	7.0	7.5	8.0	12.1
60°	5.2	5.2	5.2	5.1	5.1	5.2	5.6	5.9	6.3	6.6	10.1
62.5°	4.9	4.9	4.8	4.7	4.6	4.6	4.8	5.0	5.2	5.4	8.3
65°	4.7	4.6	4.4	4.3	4.2	4.1	4.2	4.3	4.3	4.4	6.7
67.5°	4.3	4.1	4.0	3.9	3.8	3.7	3.7	3.6	3.6	3.6	5.3
70°	3.8	3.7	3.6	3.5	3.4	3.2	3.1	3.0	2.9	2.7	4.1
72.5°	3.4	3.3	3.1	3.0	2.8	2.7	2.6	2.4	2.3	2.2	3.2
75°	2.7	2.7	2.6	2.6	2.5	2.4	2.3	2.1	2.0	1.8	2.4
77.5°	2.2	2.1	2.1	2.0	2.0	1.9	1.7	1.6	1.5	1.4	1.8
80°	1.8	1.7	1.7	1.6	1.5	1.5	1.3	1.2	1.1	1.0	1.2
82.5°	1.2	1.2	1.2	1.2	1.1	1.0	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	0.4
87.5°	0.4	0.4	0.4	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



TEST NUMBER: P273335

CATALOG NUMBER: 0.03-1W-830-10-ID-STD-UNV-AN-3F0

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	377.8	377.8	377.8	377.8	377.8	377.8	377.8	377.8
0.5°	377.2	377.3	377.3	377.4	377.4	377.4	377.5	377.5
1°	376.3	376.5	376.7	376.9	376.9	377.0	377.1	377.2
1.5°	375.0	375.4	375.8	376.1	376.3	376.5	376.7	376.9
2°	373.0	373.7	374.5	375.0	375.4	375.7	376.1	376.4
2.5°	370.6	371.8	373.0	373.9	374.3	374.7	375.1	375.6
3°	367.8	369.5	371.1	372.3	372.9	373.5	374.1	374.7
3.5°	364.3	366.3	368.4	369.9	370.9	371.9	372.9	373.9
4°	360.6	363.3	366.0	367.9	369.2	370.4	371.6	372.8
4.5°	356.7	360.0	363.3	365.7	367.1	368.6	370.0	371.5
5°	352.2	356.2	360.2	363.2	364.9	366.8	368.5	370.4
5.5°	347.5	352.2	357.0	360.4	362.5	364.6	366.6	368.7
6°	342.6	348.0	353.5	357.4	359.8	362.2	364.6	367.1
6.5°	337.4	343.5	349.6	354.1	356.9	359.7	362.6	365.4
7°	332.1	339.0	345.9	350.9	354.1	357.2	360.4	363.5
7.5°	326.4	334.0	341.6	347.1	350.7	354.2	357.7	361.3
8°	320.6	328.9	337.2	343.4	347.4	351.4	355.4	359.4
8.5°	314.6	323.6	332.7	339.5	343.9	348.3	352.7	357.2
9°	308.3	318.2	328.0	335.3	340.1	345.0	349.8	354.7
9.5°	302.1	312.6	323.2	331.1	336.4	341.7	346.9	352.2
10°	295.6	306.9	318.3	326.8	332.5	338.3	344.0	349.7
10.5°	289.2	301.3	313.4	322.5	328.7	334.9	341.1	347.3
11°	282.7	295.5	308.3	318.1	324.7	331.4	338.1	344.8
11.5°	276.3	289.7	303.1	313.4	320.5	327.7	334.9	342.1
12°	269.8	283.8	297.8	308.6	316.2	323.8	331.4	339.0
12.5°	263.4	278.0	292.7	304.0	312.0	320.0	328.0	336.0
13°	256.9	272.2	287.5	299.4	307.8	316.2	324.6	333.0
13.5°	250.3	266.2	282.2	294.6	303.4	312.3	321.1	330.0
14°	243.7	260.4	277.0	289.9	299.1	308.3	317.5	326.7
14.5°	236.6	254.0	271.4	284.9	294.6	304.3	314.0	323.6
15°	230.1	248.1	266.1	280.2	290.2	300.3	310.3	320.3
16°	217.4	236.3	255.2	270.0	280.9	291.7	302.6	313.5
17°	205.0	224.6	244.2	259.8	271.4	282.9	294.5	306.1
18°	192.5	212.8	233.1	249.4	261.6	273.9	286.1	298.4
19°	181.1	201.8	222.5	239.2	252.0	264.8	277.6	290.4
20°	170.3	191.2	212.2	229.3	242.5	255.7	268.9	282.2
22.5°	146.1	167.0	187.8	205.0	218.7	232.3	246.0	259.6
25°	125.3	145.4	165.5	182.6	196.6	210.7	224.7	238.8
27.5°	107.5	126.2	144.9	161.2	174.9	188.7	202.5	216.2
30°	92.6	109.7	126.8	141.8	154.9	167.9	180.9	194.0
32.5°	79.9	95.3	110.8	124.5	136.5	148.6	160.5	172.5
35°	68.9	82.8	96.7	109.1	119.8	130.5	141.2	151.9
37.5°	59.0	71.5	84.1	95.1	104.6	114.0	123.5	133.0
40°	50.3	61.5	72.7	82.4	90.7	99.1	107.4	115.7
42.5°	42.8	52.7	62.6	71.2	78.5	85.7	93.0	100.3





TEST NUMBER: P273335

CATALOG NUMBER: 0.03-1W-830-10-ID-STD-UNV-AN-3F0

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
45°	36.5	45.2	53.9	61.4	67.8	74.1	80.5	86.8
47.5°	31.1	38.7	46.2	52.8	58.3	63.9	69.5	75.0
50°	26.6	33.2	39.7	45.4	50.3	55.1	60.0	64.8
52.5°	22.7	28.4	34.0	39.0	43.3	47.6	52.0	56.3
55°	19.3	24.2	29.0	33.5	37.4	41.5	45.4	49.5
57.5°	16.3	20.4	24.6	28.5	32.2	36.0	39.7	43.4
60°	13.5	17.0	20.5	24.0	27.6	31.1	34.6	38.2
62.5°	11.2	14.1	17.0	20.1	23.5	27.0	30.4	33.8
65°	9.0	11.3	13.7	16.5	19.7	22.9	26.2	29.4
67.5°	7.1	8.9	10.7	13.1	16.1	19.2	22.2	25.3
70°	5.5	6.9	8.2	10.2	12.9	15.6	18.2	20.9
72.5°	4.2	5.2	6.2	7.8	9.9	12.0	14.1	16.2
75°	3.1	3.8	4.5	5.6	7.2	8.8	10.5	12.1
77.5°	2.2	2.7	3.1	3.8	4.9	6.0	7.1	8.2
80°	1.4	1.6	1.8	2.3	3.0	3.8	4.5	5.2
82.5°	0.9	1.0	1.0	1.3	1.6	2.0	2.4	2.7
85°	0.5	0.5	0.5	0.6	0.8	1.0	1.2	1.4
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)