

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: io LED

Report Number: P210890

Luminaire Tested: **LSR4B10D010BZ EC4B10208035 4LBCSMMS1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P210890  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35319)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LSR4B10D010BZ EC4B10208035 4LBCSMMS1  
Description: PORTFOLIO 4 INCH CYLINDER  
SHALLOW DISTRIBUTION WITH CAST MATTE BLACK TRIM  
WATTAGE D010TR-10.05W DE010-10.58W D5LT-10.2W DMX-10.6W DL2-11.8W  
DL3-11.1W DLE-11.39W  
Light Source: HIGH LUMEN LED  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 970.1 lumens  
Efficiency: N/A  
Efficacy: 98.0 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.16 / 1.27  
Luminous Opening: Point Source (0' x 0' x 0')  
CIE Type: Direct

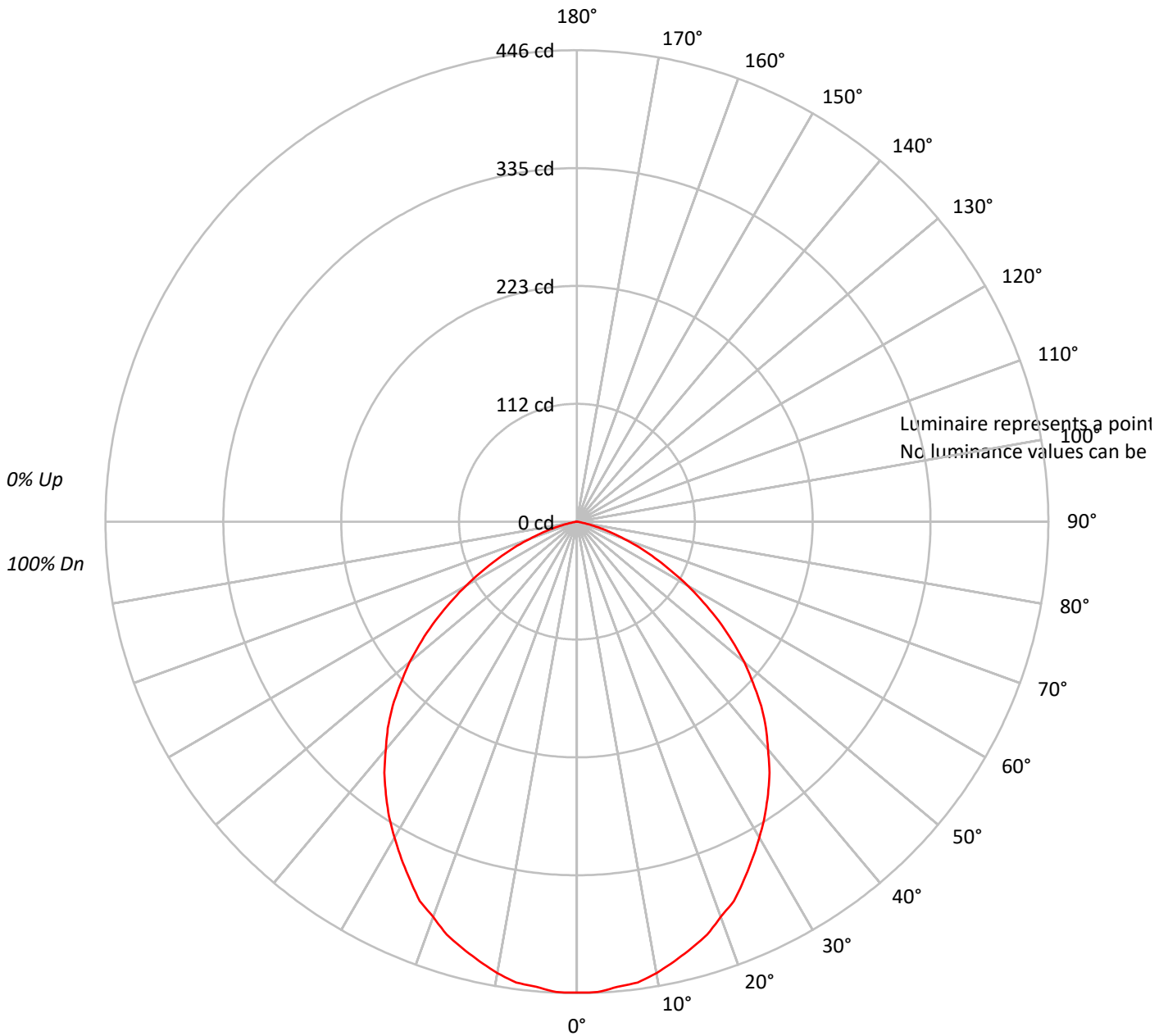
Input Watts (W): 9.9  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									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																			
1	111	107	103	100	108	105	101	98	100	98	95	97	94	92	93	91	90	88																			
2	102	95	89	84	99	93	88	83	90	85	81	86	83	79	83	80	78	76																			
3	94	85	77	72	92	83	76	71	80	74	70	77	73	69	75	71	67	65																			
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57																			
5	80	68	60	54	78	67	59	54	65	58	53	63	57	53	61	56	52	50																			
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44																			
7	69	56	48	42	67	56	48	42	54	47	42	53	46	42	51	46	41	40																			
8	64	52	44	38	63	51	43	38	50	43	38	48	42	38	47	42	37	36																			
9	60	48	40	34	59	47	40	34	46	39	34	45	39	34	44	38	34	32																			
10	57	44	36	31	55	43	36	31	43	36	31	42	35	31	41	35	31	29																			

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





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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	42.0	4.3
10°-20°	117.8	12.1
20°-30°	172.1	17.7
30°-40°	196.8	20.3
40°-50°	189.1	19.5
50°-60°	146.1	15.1
60°-70°	81.5	8.4
70°-80°	23.7	2.4
80°-90°	1.0	0.1
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°	331.8	34.2
0°-40°	528.6	54.5
0°-60°	863.8	89.0
0°-90°	970.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	970.1	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	446	
5°	442	42
15°	418	118
25°	374	172
35°	315	197
45°	247	189
55°	164	146
65°	82	82
75°	21	24
85°	1	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	445.5
2.5°	445.5
5°	441.7
7.5°	439.8
10°	433.6
12.5°	426.0
15°	417.9
17.5°	409.7
20°	397.8
22.5°	388.4
25°	373.9
27.5°	359.5
30°	345.1
32.5°	330.7
35°	315.0
37.5°	299.3
40°	281.1
42.5°	264.8
45°	246.6
47.5°	225.9
50°	206.4
52.5°	185.1
55°	163.8
57.5°	141.8
60°	121.1
62.5°	100.4
65°	81.6
67.5°	64.0
70°	47.7
72.5°	33.3
75°	20.7
77.5°	10.7
80°	3.8
82.5°	1.3
85°	0.6
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)