

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: P211760

Luminaire Tested: **LSR4B20D010BZ EC4B10208050 4LBCSMMS1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P211760  
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: LSR4B20D010BZ EC4B10208050 4LBCSMMS1  
Description: PORTFOLIO 4 INCH CYLINDER  
SHALLOW DISTRIBUTION WITH CAST MATTE BLACK TRIM  
WATTAGE D010TR-21.86W DE010-20.46W D5LT-21.24W DMX-20.89W DL2-22.5W  
DL3-21.8 6W DLE-22.46W  
Light Source: HIGH LUMEN LED  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1848.7 lumens  
Efficiency: N/A  
Efficacy: 88.9 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

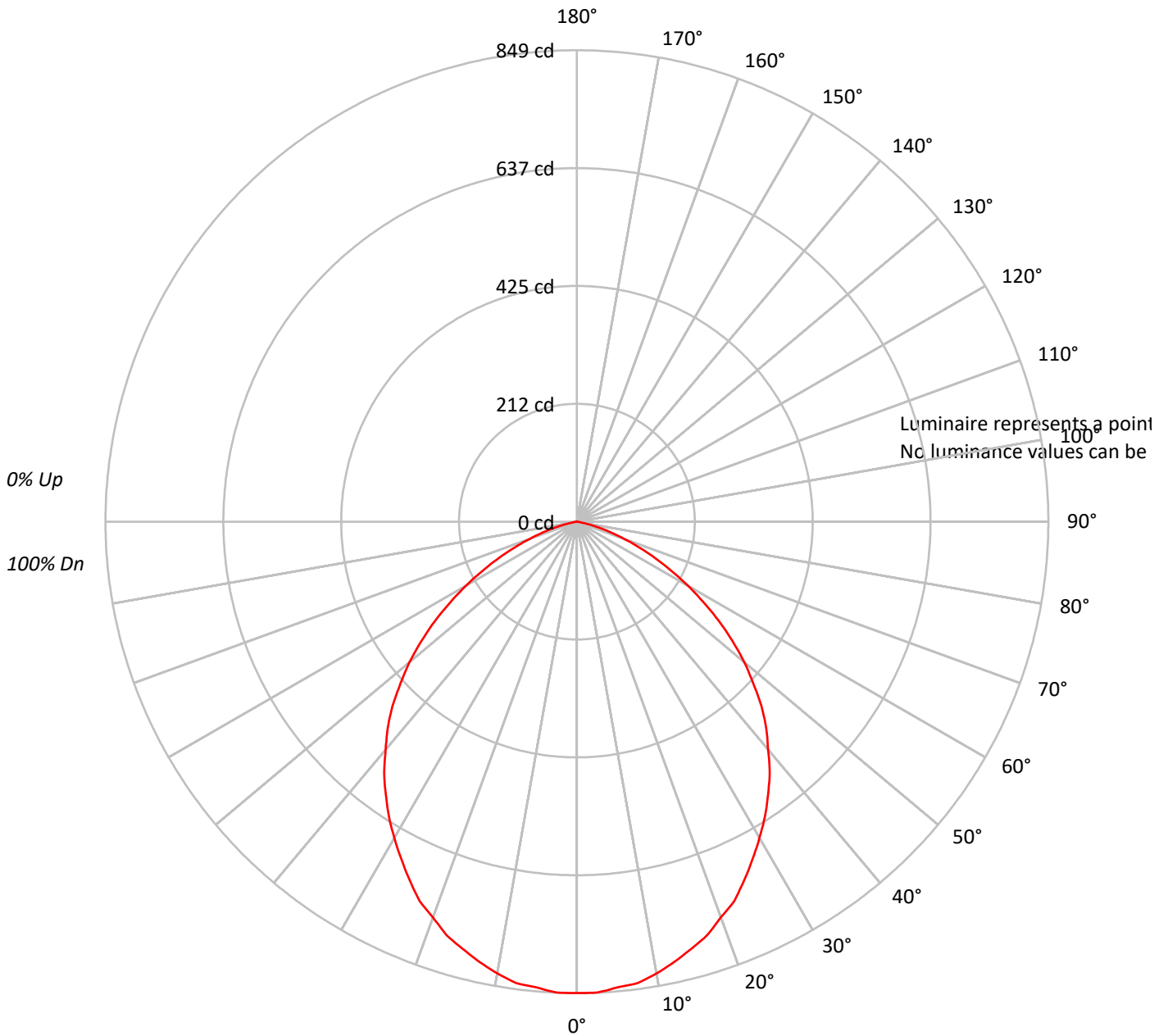
Input Watts (W): 20.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20				20				20				20				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	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100
1	111	107	103	100	108	105	101	98	100	98	95	97	94	92	93	91	90	88	88	88	88
2	102	95	89	84	99	93	88	83	90	85	81	86	83	79	83	80	78	76	76	76	76
3	94	85	77	72	92	83	76	71	80	74	70	77	73	69	75	71	67	65	65	65	65
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57	57	57	57
5	80	68	60	54	78	67	59	54	65	58	53	63	57	53	61	56	52	50	50	50	50
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44	44	44	44
7	69	56	48	42	67	56	48	42	54	47	42	53	46	42	51	46	41	40	40	40	40
8	64	52	44	38	63	51	43	38	50	43	38	48	42	38	47	42	37	36	36	36	36
9	60	48	40	35	59	47	40	34	46	39	34	45	39	34	44	38	34	32	32	32	32
10	57	44	36	31	55	43	36	31	43	36	31	42	35	31	41	35	31	29	29	29	29

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





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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.0	4.3
10°-20°	224.5	12.1
20°-30°	327.9	17.7
30°-40°	375.0	20.3
40°-50°	360.4	19.5
50°-60°	278.3	15.1
60°-70°	155.3	8.4
70°-80°	45.2	2.4
80°-90°	2.0	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°	632.4	34.2
0°-40°	1007.4	54.5
0°-60°	1646.1	89.0
0°-90°	1848.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1848.7	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	849	
5°	842	80
15°	796	224
25°	713	328
35°	600	375
45°	470	360
55°	312	278
65°	155	155
75°	40	45
85°	1	2
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	848.9
2.5°	848.9
5°	841.8
7.5°	838.2
10°	826.2
12.5°	811.9
15°	796.3
17.5°	780.8
20°	758.1
22.5°	740.1
25°	712.6
27.5°	685.1
30°	657.6
32.5°	630.1
35°	600.2
37.5°	570.3
40°	535.7
42.5°	504.6
45°	469.9
47.5°	430.5
50°	393.4
52.5°	352.7
55°	312.1
57.5°	270.2
60°	230.8
62.5°	191.3
65°	155.4
67.5°	122.0
70°	90.9
72.5°	63.4
75°	39.5
77.5°	20.3
80°	7.2
82.5°	2.4
85°	1.2
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)