

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: P211514

Luminaire Tested: **LSR4B20D010BZ EC4B10209027 4LBSB1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P211514  
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 EC4B10209027 4LBSB1  
Description: PORTFOLIO 4 INCH CYLINDER  
SHALLOW DISTRIBUTION WITH SPECULAR 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: 1435.4 lumens  
Efficiency: N/A  
Efficacy: 69.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.2 / 1.3  
Luminous Opening: Point Source (0' x 0' x 0')  
CIE Type: Direct

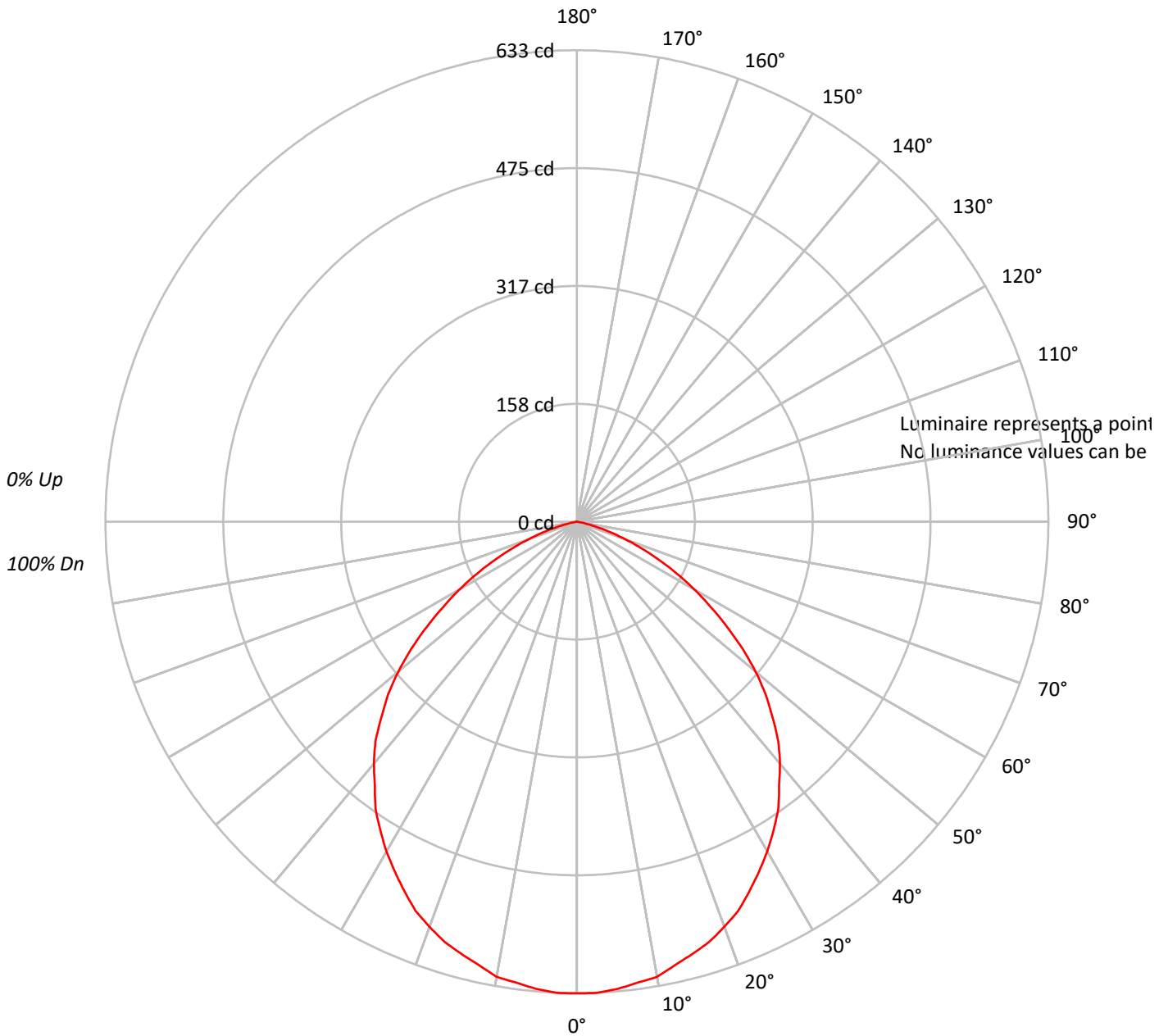
Input Watts (W): 20.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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
1	111	107	103	100	108	105	101	98	100	98	95	97	94	93	93	91	90	88			88
2	102	95	89	84	100	93	88	83	90	85	81	86	83	79	84	80	78	76			76
3	94	84	77	72	91	83	76	71	80	74	70	77	73	69	75	71	67	65			65
4	86	76	68	62	84	74	67	61	72	65	60	70	64	60	68	63	59	57			57
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50			50
6	74	62	53	47	72	61	53	47	59	52	47	57	51	46	56	50	46	44			44
7	69	56	48	42	67	55	48	42	54	47	42	52	46	41	51	45	41	39			39
8	64	51	43	38	63	51	43	38	49	42	37	48	42	37	47	41	37	35			35
9	60	47	39	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32			32
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	40	35	31	29			29

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





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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.8	4.2
10°-20°	169.6	11.8
20°-30°	252.3	17.6
30°-40°	293.5	20.4
40°-50°	286.1	19.9
50°-60°	220.1	15.3
60°-70°	121.6	8.5
70°-80°	32.2	2.2
80°-90°	0.2	0.0
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°	481.6	33.6
0°-40°	775.2	54.0
0°-60°	1281.4	89.3
0°-90°	1435.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1435.4	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	633	
5°	630	60
15°	600	170
25°	548	252
35°	471	294
45°	371	286
55°	246	220
65°	122	122
75°	27	32
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	633.3
2.5°	633.3
5°	629.6
7.5°	624.2
10°	620.5
12.5°	609.6
15°	600.5
17.5°	591.4
20°	578.7
22.5°	565.9
25°	547.7
27.5°	529.5
30°	511.3
32.5°	491.3
35°	471.3
37.5°	445.8
40°	424.0
42.5°	400.3
45°	371.2
47.5°	343.9
50°	313.0
52.5°	280.2
55°	245.7
57.5°	212.9
60°	182.0
62.5°	151.0
65°	121.9
67.5°	94.6
70°	69.1
72.5°	47.3
75°	27.3
77.5°	12.7
80°	1.8
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)