

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: P211718

Luminaire Tested: **LSR4B20D010BZ EC4B10208040 4LBSGPH1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P211718  
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 EC4B10208040 4LBSGPH1  
Description: PORTFOLIO 4 INCH CYLINDER  
SHALLOW DISTRIBUTION WITH GRAPHITE HAZE 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: 1890.1 lumens  
Efficiency: N/A  
Efficacy: 90.9 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.16 / 1.26  
Luminous Opening: Point Source (0' x 0' x 0')  
CIE Type: Direct

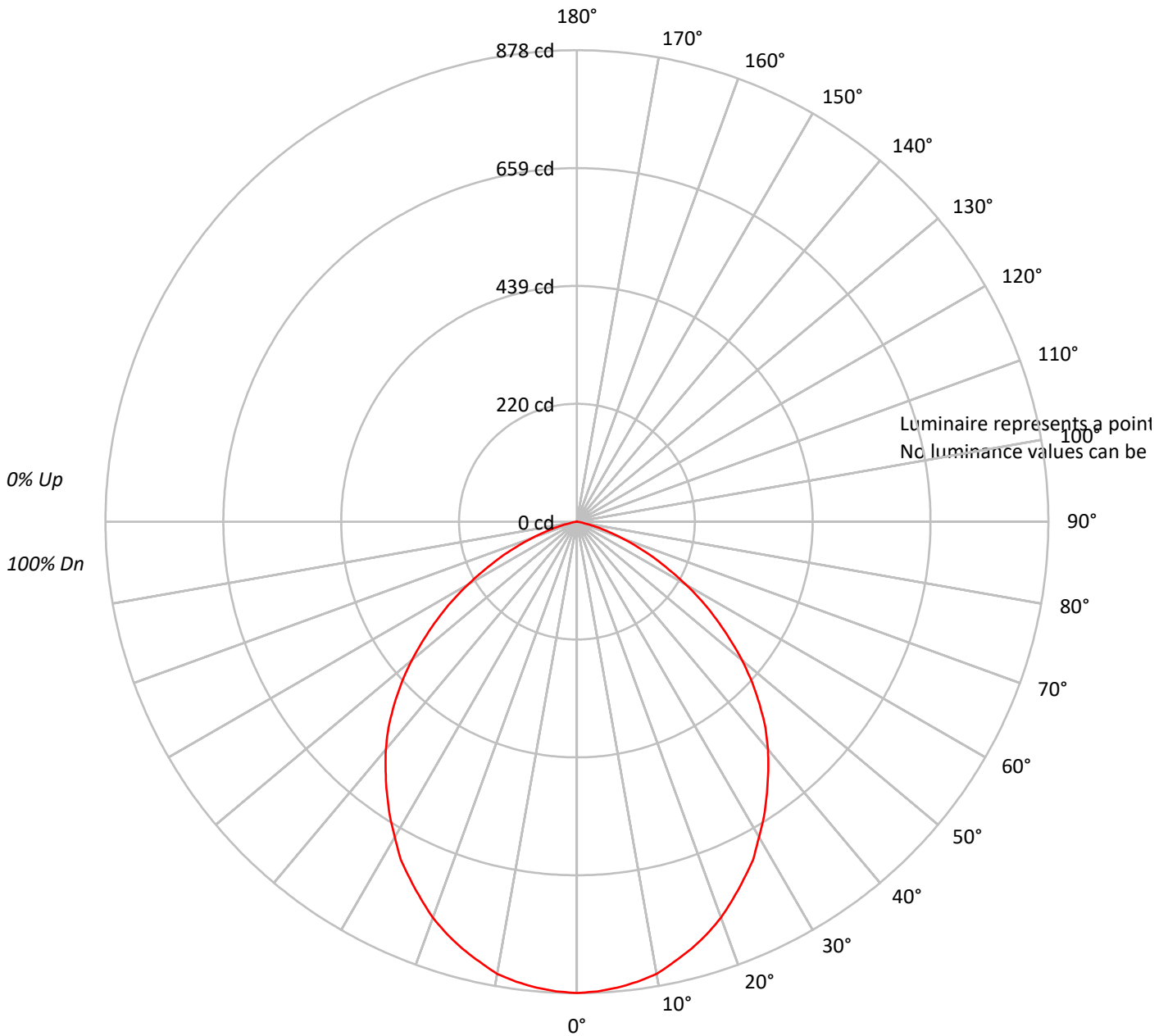
Input Watts (W): 20.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	102	99	101	98	96	97	95	93	93	91	90	88			88
2	102	95	89	84	100	93	88	83	90	85	82	87	83	80	84	81	78	76			76
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66			66
4	87	76	68	62	85	75	67	62	72	66	61	70	65	60	68	63	59	57			57
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	50			50
6	74	62	54	48	73	61	53	48	59	52	47	58	52	47	56	51	47	45			45
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40			40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36			36
9	60	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	32			32
10	57	44	37	32	56	44	36	32	43	36	31	42	36	31	41	35	31	30			30

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





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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	82.6	4.4
10°-20°	232.0	12.3
20°-30°	338.4	17.9
30°-40°	385.9	20.4
40°-50°	370.1	19.6
50°-60°	283.5	15.0
60°-70°	155.6	8.2
70°-80°	41.4	2.2
80°-90°	0.6	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°	653.0	34.6
0°-40°	1038.9	55.0
0°-60°	1692.5	89.5
0°-90°	1890.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1890.1	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	878	
5°	871	83
15°	823	232
25°	735	338
35°	617	386
45°	481	370
55°	318	283
65°	156	156
75°	36	41
85°	0	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	877.8
2.5°	875.6
5°	871.0
7.5°	864.2
10°	855.2
12.5°	839.3
15°	823.4
17.5°	805.3
20°	784.8
22.5°	759.9
25°	734.9
27.5°	710.0
30°	678.2
32.5°	648.7
35°	617.0
37.5°	585.2
40°	553.5
42.5°	519.4
45°	480.9
47.5°	442.3
50°	401.5
52.5°	358.4
55°	317.6
57.5°	276.7
60°	233.6
62.5°	192.8
65°	156.5
67.5°	120.2
70°	88.5
72.5°	59.0
75°	36.3
77.5°	15.9
80°	4.5
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)