

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: P211731

Luminaire Tested: **LE\_4B20D010 EC4B10209040 4LBCS1MMS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P211731  
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: LE\_4B20D010 EC4B10209040 4LBCS1MMS  
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: 1796.8 lumens  
Efficiency: N/A  
Efficacy: 86.4 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

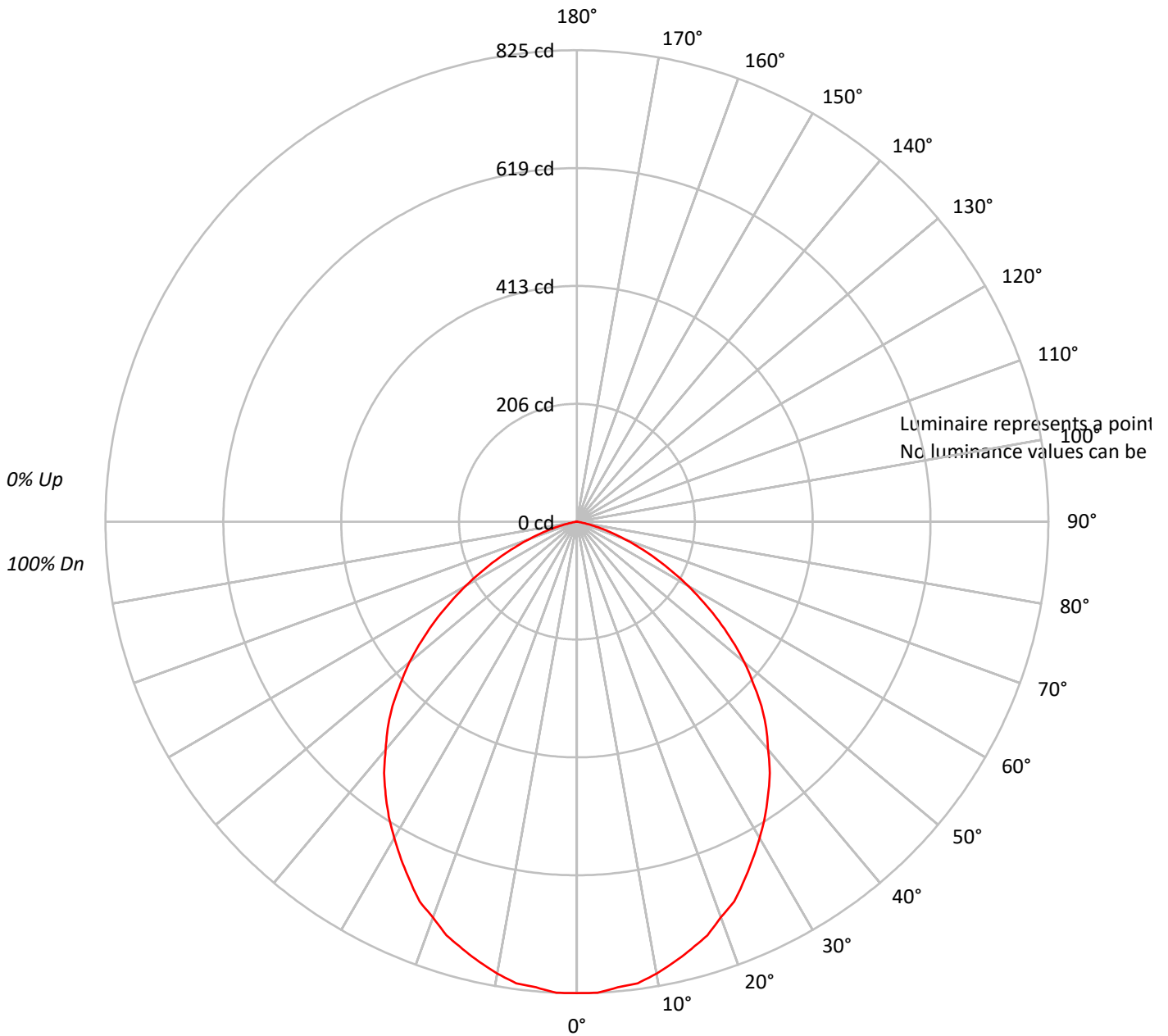
Input Watts (W): 20.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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			
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	35	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°	77.8	4.3
10°-20°	218.2	12.1
20°-30°	318.7	17.7
30°-40°	364.5	20.3
40°-50°	350.3	19.5
50°-60°	270.5	15.1
60°-70°	151.0	8.4
70°-80°	43.9	2.4
80°-90°	1.9	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°	614.7	34.2
0°-40°	979.2	54.5
0°-60°	1600.0	89.0
0°-90°	1796.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1796.8	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	825	
5°	818	78
15°	774	218
25°	693	319
35°	583	365
45°	457	350
55°	303	270
65°	151	151
75°	38	44
85°	1	2
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	825.1
2.5°	825.1
5°	818.1
7.5°	814.7
10°	803.1
12.5°	789.1
15°	774.0
17.5°	758.9
20°	736.8
22.5°	719.4
25°	692.6
27.5°	666.0
30°	639.2
32.5°	612.5
35°	583.4
37.5°	554.4
40°	520.6
42.5°	490.4
45°	456.7
47.5°	418.4
50°	382.3
52.5°	342.9
55°	303.3
57.5°	262.6
60°	224.3
62.5°	185.9
65°	151.0
67.5°	118.6
70°	88.3
72.5°	61.6
75°	38.4
77.5°	19.7
80°	7.0
82.5°	2.3
85°	1.2
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)