

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: P211595

Luminaire Tested: **LSR4B20D010BZ EC4B10209030 4LBNGPH1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P211595
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 EC4B10209030 4LBNGPH1
Description: PORTFOLIO 4 INCH CYLINDER
NARROW 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: 810.4 lumens
Efficiency: N/A
Efficacy: 39.0 lumens/watt
Spacing Criteria (0/90/45): 0.86 / 0.86 / 0.88
Luminous Opening: Point Source (0' x 0' x 0')
CIE Type: Direct

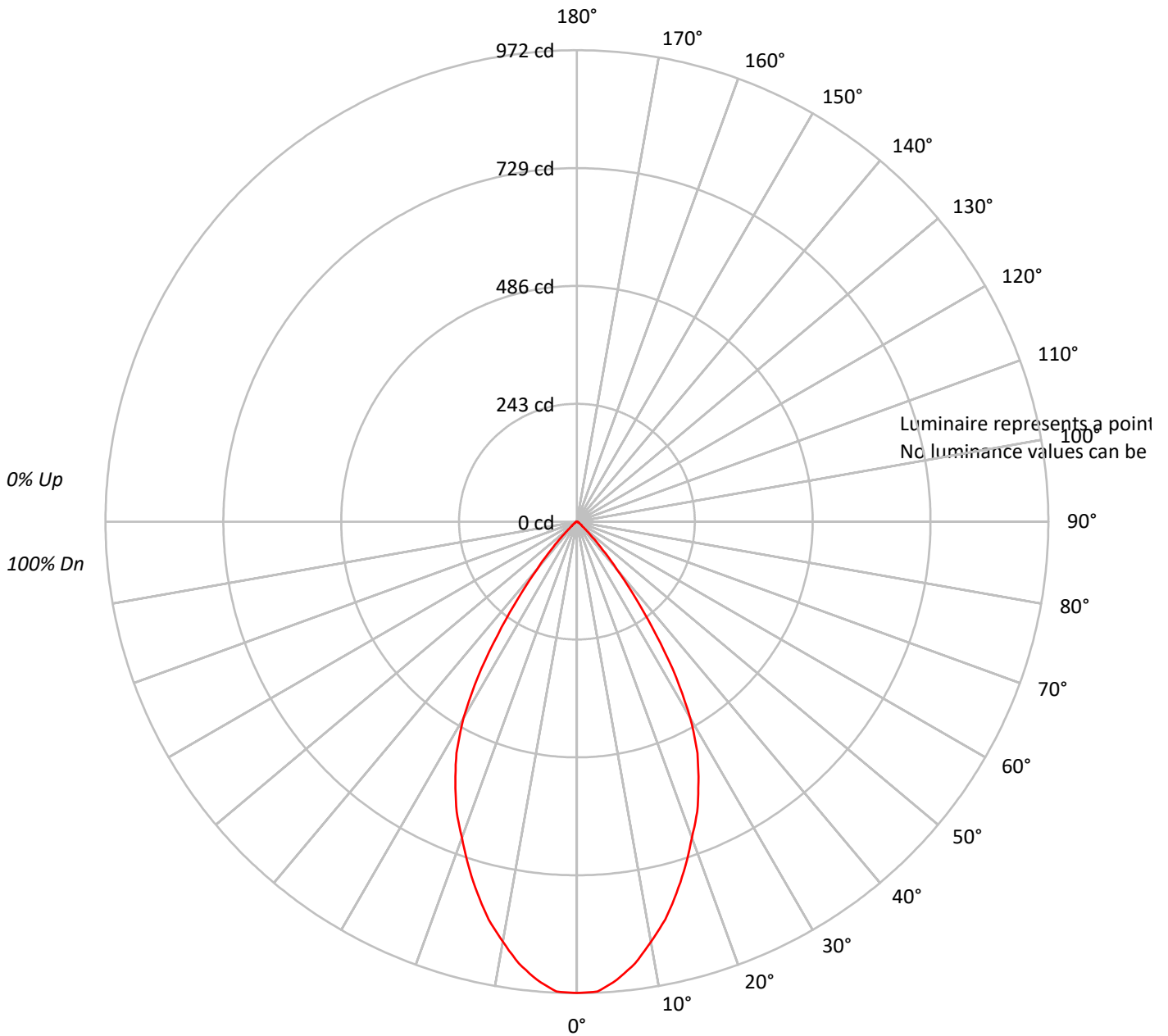
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	114	111	108	106	111	109	106	104	105	103	101	101	100	98	97	96	95	94			
2	108	103	99	96	106	101	98	95	98	95	93	95	93	91	92	91	89	87			
3	103	96	91	87	101	95	90	87	92	88	85	90	87	84	88	85	83	81			
4	97	90	84	80	96	89	84	80	87	82	79	85	81	78	83	80	77	76			
5	93	84	78	74	91	83	78	74	82	77	73	80	76	73	78	75	72	70			
6	88	79	73	69	86	78	73	69	77	72	68	75	71	68	74	70	67	66			
7	84	74	68	64	82	74	68	64	72	67	64	71	67	63	70	66	63	62			
8	80	70	64	60	78	70	64	60	68	63	60	67	63	59	66	62	59	58			
9	76	66	60	56	75	66	60	56	65	60	56	64	59	56	63	59	56	54			
10	72	63	57	53	71	62	57	53	61	56	53	61	56	53	60	56	52	51			

AVERAGE LUMINANCE (cd/sqm):





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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.4	10.9
10°-20°	221.5	27.3
20°-30°	269.9	33.3
30°-40°	178.1	22.0
40°-50°	41.0	5.1
50°-60°	7.9	1.0
60°-70°	2.9	0.4
70°-80°	0.8	0.1
80°-90°	0.0	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°	579.7	71.5
0°-40°	757.8	93.5
0°-60°	806.7	99.5
0°-90°	810.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	810.4	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	972	
5°	948	88
15°	793	221
25°	593	270
35°	285	178
45°	45	41
55°	8	8
65°	2	3
75°	0	1
85°	0	0
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	971.7
2.5°	969.8
5°	948.2
7.5°	918.7
10°	879.5
12.5°	840.2
15°	793.1
17.5°	744.0
20°	693.0
22.5°	647.8
25°	592.9
27.5°	537.9
30°	467.2
32.5°	380.8
35°	284.6
37.5°	198.3
40°	127.6
42.5°	78.5
45°	45.2
47.5°	23.6
50°	13.7
52.5°	11.8
55°	7.9
57.5°	5.9
60°	5.9
62.5°	3.9
65°	2.0
67.5°	2.0
70°	2.0
72.5°	2.0
75°	0.0
77.5°	0.0
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)