

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: P251851

Luminaire Tested: **LD4B20D010 EU4B10209040 4LBDW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P251851
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-14)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD4B20D010 EU4B10209040 4LBDW1LI
Description: PORTFOLIO 4 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1587.0 lumens
Efficiency: N/A
Efficacy: 76.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.32 / 1.18
Luminous Opening: Circular (Dia: 7.42' x H: 0')
CIE Type: Direct

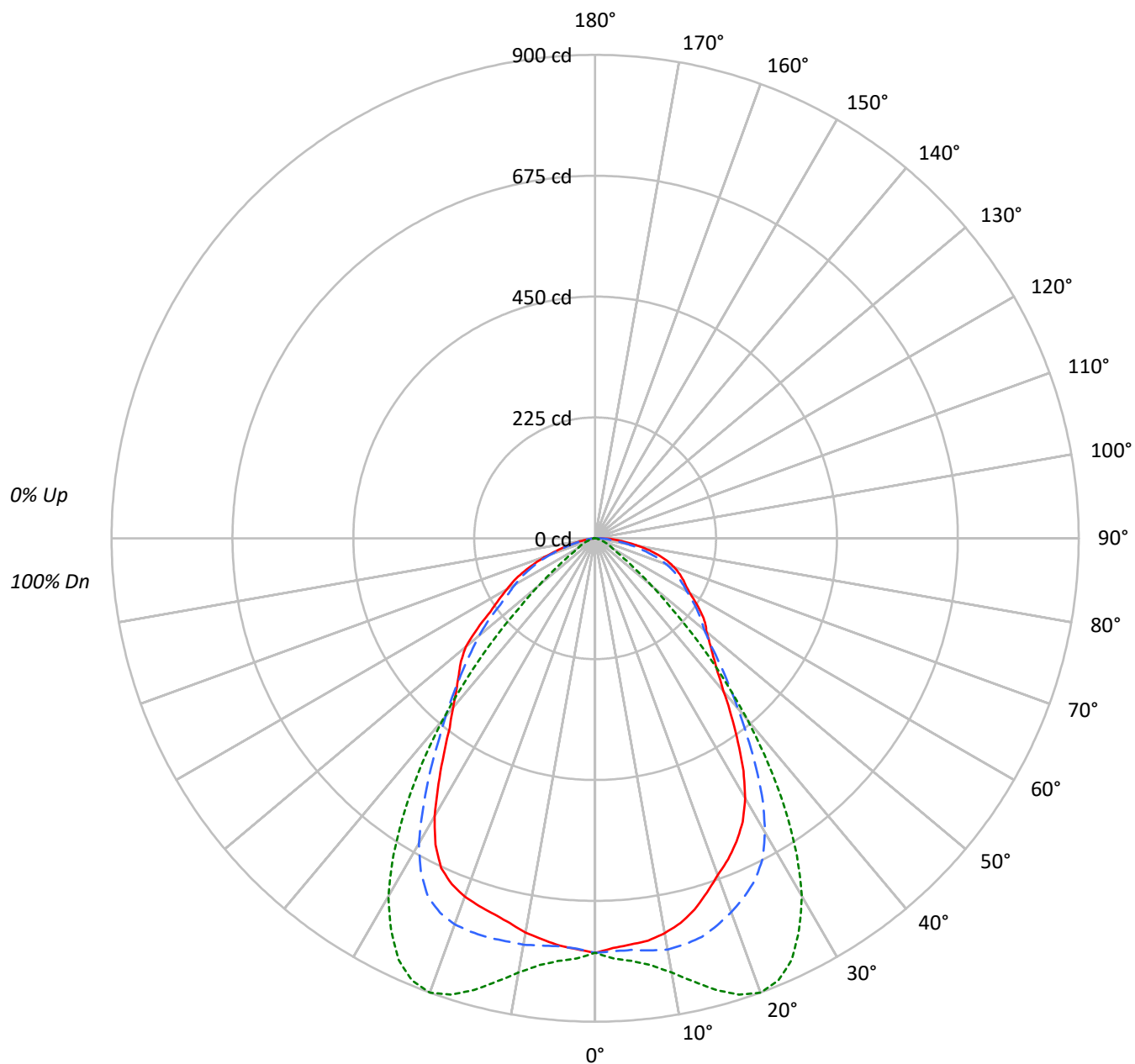
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	110	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87		
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76		
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66		
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58		
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52		
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47		
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	54	48	44	42		
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38		
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35		
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	192	192	192
5°	190	198	190
10°	189	208	189
15°	185	224	187
20°	177	239	188
25°	171	238	186
30°	161	221	172
35°	141	188	149
40°	121	143	134
45°	109	94	126
50°	105	53	122
55°	105	28	103
60°	101	19	94
65°	106	16	86
70°	114	11	70
75°	119	8	49
80°	117	5	31
85°	121	3	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.9	4.7
10°-20°	221.1	13.9
20°-30°	337.3	21.3
30°-40°	336.7	21.2
40°-50°	248.3	15.6
50°-60°	169.6	10.7
60°-70°	119.7	7.5
70°-80°	63.9	4.0
80°-90°	16.4	1.0
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°	632.3	39.8
0°-40°	969.0	61.1
0°-60°	1386.9	87.4
0°-90°	1587.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1587.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	772	772	772	772	772	
5°	759	769	790	762	761	72
15°	716	768	870	769	725	201
25°	623	703	866	736	678	285
35°	463	523	617	538	491	289
45°	311	326	267	349	359	242
55°	241	232	65	216	237	214
65°	180	171	26	132	146	178
75°	124	101	8	46	50	128
85°	42	28	1	6	0	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	771.7	771.7	771.7	771.7	771.7	771.7	771.7	771.7	771.7
2.5°	763.6	768.2	769.4	777.4	783.1	776.2	764.8	764.8	765.9
5°	759.1	764.8	769.4	783.1	790.0	778.5	762.5	760.2	761.3
7.5°	755.6	763.6	774.0	794.6	801.5	786.6	764.8	755.6	753.3
10°	746.4	757.9	777.4	807.2	821.0	802.6	768.2	751.0	745.3
12.5°	733.8	747.6	774.0	821.0	845.0	817.5	768.2	743.0	733.8
15°	715.5	730.4	768.2	832.4	870.3	833.6	769.4	735.0	724.7
17.5°	691.4	709.7	755.6	838.2	890.9	848.5	768.2	729.2	717.8
20°	667.3	689.1	740.7	838.2	900.1	854.2	764.8	723.5	709.7
22.5°	646.7	668.5	723.5	827.8	890.9	847.3	754.5	713.2	697.1
25°	622.6	645.5	702.9	806.1	865.7	826.7	736.1	692.5	677.6
27.5°	595.1	620.3	674.2	771.7	822.1	788.9	701.7	659.3	643.2
30°	558.4	581.3	631.8	722.4	769.4	737.3	655.9	612.3	597.4
32.5°	513.7	534.3	581.3	662.7	698.3	671.9	596.2	559.5	542.3
35°	463.2	481.6	522.9	587.1	616.9	600.8	537.8	503.4	490.7
37.5°	416.2	430.0	464.4	511.4	529.7	519.4	480.4	455.2	444.9
40°	371.5	385.3	412.8	435.7	440.3	443.7	432.3	416.2	410.5
42.5°	337.1	349.7	366.9	364.6	350.9	370.4	388.7	386.4	381.8
45°	310.7	319.9	325.6	291.2	267.2	299.3	348.6	361.2	358.9
47.5°	288.9	293.5	290.1	232.8	189.2	232.8	313.0	338.2	338.2
50°	270.6	274.0	264.9	193.8	136.4	186.9	282.1	309.6	314.2
52.5°	258.0	259.1	247.7	164.0	94.0	147.9	248.8	272.9	276.3
55°	240.8	241.9	231.6	142.2	65.4	117.0	215.6	237.3	237.3
57.5°	221.3	223.6	213.3	123.8	45.9	97.5	190.3	211.0	212.1
60°	202.9	204.1	197.2	110.1	37.8	83.7	172.0	189.2	189.2
62.5°	190.3	191.5	183.5	102.0	32.1	73.4	152.5	168.6	169.7
65°	180.0	180.0	170.8	94.0	26.4	61.9	131.9	145.6	145.6
67.5°	168.6	166.3	157.1	83.7	20.6	50.5	111.2	121.5	120.4
70°	155.9	152.5	141.0	72.2	14.9	40.1	87.1	95.2	96.3
72.5°	141.0	136.4	121.5	59.6	11.5	29.8	64.2	71.1	71.1
75°	123.8	118.1	100.9	47.0	8.0	20.6	45.9	50.5	50.5
77.5°	103.2	97.5	80.3	34.4	5.7	13.8	31.0	34.4	34.4
80°	81.4	75.7	59.6	24.1	3.4	8.0	19.5	22.9	21.8
82.5°	60.8	55.0	40.1	14.9	2.3	4.6	12.6	12.6	11.5
85°	42.4	39.0	27.5	9.2	1.1	2.3	5.7	2.3	0.0
87.5°	28.7	25.2	17.2	4.6	0.0	1.1	1.1	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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— 0°-180° - - 45°-225° - - - 90°-270°







(END OF REPORT)