

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: P251850

Luminaire Tested: **LD4B20D010 EU4B10209035 4LBDW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P251850
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 EU4B10209035 4LBDW1LI
Description: PORTFOLIO 4 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1584.0 lumens
Efficiency: N/A
Efficacy: 76.2 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

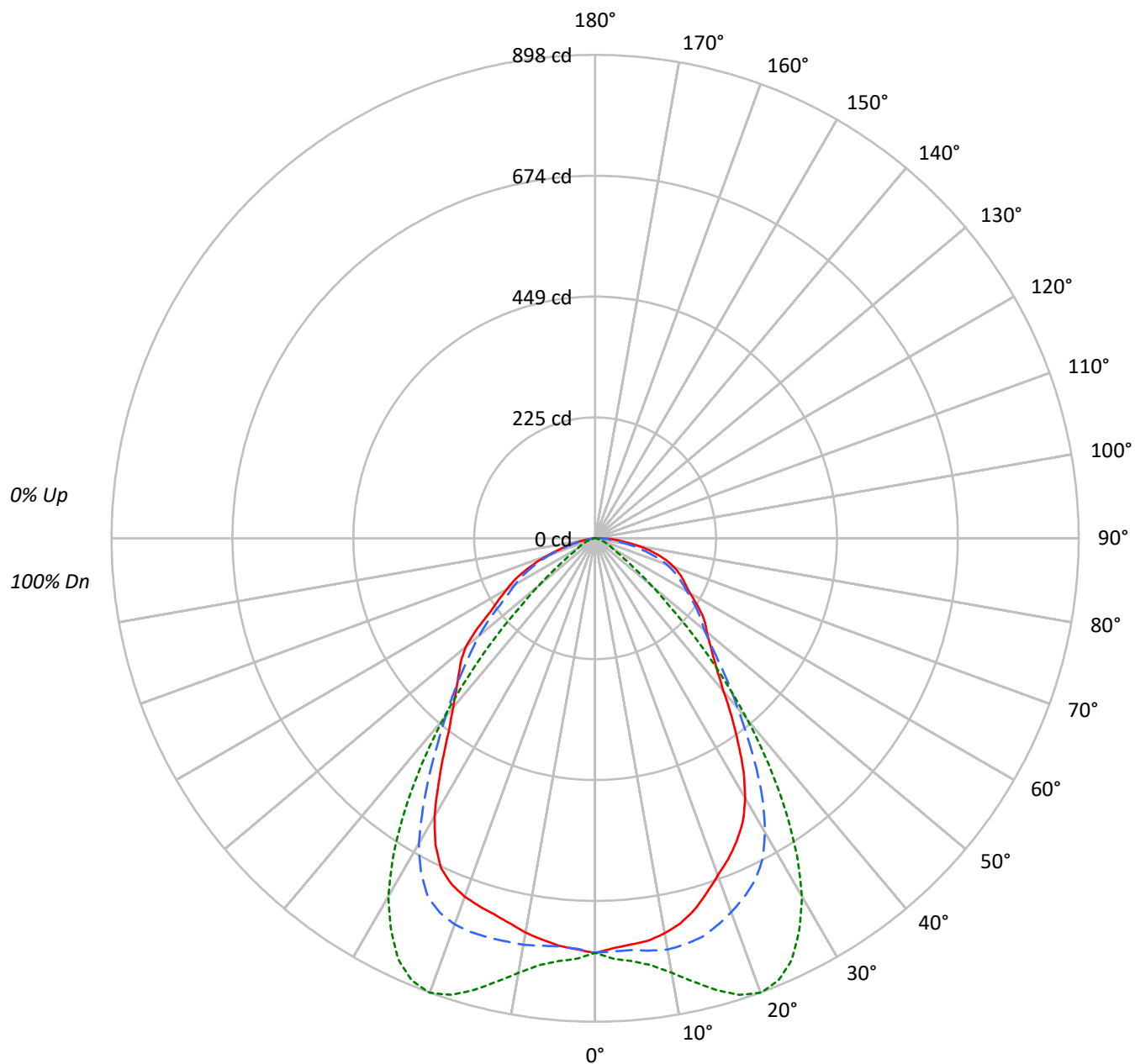
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	189	197	190
10°	188	207	188
15°	184	224	187
20°	177	238	188
25°	171	238	186
30°	160	221	172
35°	141	187	149
40°	121	143	133
45°	109	94	126
50°	105	53	122
55°	104	28	103
60°	101	19	94
65°	106	16	86
70°	113	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°	73.7	4.7
10°-20°	220.7	13.9
20°-30°	336.7	21.3
30°-40°	336.0	21.2
40°-50°	247.8	15.6
50°-60°	169.3	10.7
60°-70°	119.5	7.5
70°-80°	63.8	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°	631.1	39.8
0°-40°	967.2	61.1
0°-60°	1384.3	87.4
0°-90°	1584.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1584.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	770	770	770	770	770	
5°	758	768	788	761	760	72
15°	714	767	869	768	723	200
25°	621	702	864	735	676	285
35°	462	522	616	537	490	289
45°	310	325	267	348	358	242
55°	240	231	65	215	237	214
65°	180	170	26	132	145	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°	770.2	770.2	770.2	770.2	770.2	770.2	770.2	770.2	770.2
2.5°	762.2	766.8	767.9	775.9	781.6	774.8	763.3	763.3	764.5
5°	757.6	763.3	767.9	781.6	788.5	777.1	761.0	758.8	759.9
7.5°	754.2	762.2	772.5	793.1	800.0	785.1	763.3	754.2	751.9
10°	745.0	756.5	775.9	805.7	819.4	801.1	766.8	749.6	743.9
12.5°	732.4	746.2	772.5	819.4	843.4	816.0	766.8	741.6	732.4
15°	714.1	729.0	766.8	830.9	868.6	832.0	767.9	733.6	723.3
17.5°	690.1	708.4	754.2	836.6	889.2	846.9	766.8	727.9	716.4
20°	666.1	687.8	739.3	836.6	898.4	852.6	763.3	722.1	708.4
22.5°	645.5	667.2	722.1	826.3	889.2	845.7	753.0	711.8	695.8
25°	621.4	644.3	701.5	804.5	864.0	825.1	734.7	691.2	676.4
27.5°	594.0	619.1	672.9	770.2	820.6	787.4	700.4	658.0	642.0
30°	557.3	580.2	630.6	721.0	767.9	735.9	654.6	611.1	596.3
32.5°	512.7	533.3	580.2	661.5	697.0	670.6	595.1	558.5	541.3
35°	462.4	480.7	521.9	586.0	615.7	599.7	536.7	502.4	489.8
37.5°	415.4	429.2	463.5	510.4	528.7	518.4	479.5	454.3	444.0
40°	370.8	384.5	412.0	434.9	439.5	442.9	431.5	415.4	409.7
42.5°	336.5	349.1	366.2	363.9	350.2	369.7	388.0	385.7	381.1
45°	310.1	319.3	325.0	290.7	266.7	298.7	347.9	360.5	358.2
47.5°	288.4	293.0	289.5	232.3	188.8	232.3	312.4	337.6	337.6
50°	270.1	273.5	264.4	193.4	136.2	186.5	281.5	309.0	313.6
52.5°	257.5	258.6	247.2	163.7	93.8	147.6	248.3	272.4	275.8
55°	240.3	241.5	231.2	141.9	65.2	116.7	215.2	236.9	236.9
57.5°	220.9	223.2	212.9	123.6	45.8	97.3	190.0	210.6	211.7
60°	202.6	203.7	196.8	109.9	37.8	83.5	171.7	188.8	188.8
62.5°	190.0	191.1	183.1	101.9	32.0	73.2	152.2	168.2	169.4
65°	179.7	179.7	170.5	93.8	26.3	61.8	131.6	145.3	145.3
67.5°	168.2	165.9	156.8	83.5	20.6	50.4	111.0	121.3	120.2
70°	155.6	152.2	140.8	72.1	14.9	40.1	87.0	95.0	96.1
72.5°	140.8	136.2	121.3	59.5	11.4	29.8	64.1	71.0	71.0
75°	123.6	117.9	100.7	46.9	8.0	20.6	45.8	50.4	50.4
77.5°	103.0	97.3	80.1	34.3	5.7	13.7	30.9	34.3	34.3
80°	81.3	75.5	59.5	24.0	3.4	8.0	19.5	22.9	21.7
82.5°	60.7	54.9	40.1	14.9	2.3	4.6	12.6	12.6	11.4
85°	42.3	38.9	27.5	9.2	1.1	2.3	5.7	2.3	0.0
87.5°	28.6	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)