

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: P251823

Luminaire Tested: **LD4B10D010 EU4B10209030 4LBDW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P251823
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: LD4B10D010 EU4B10209030 4LBDW1LI
Description: PORTFOLIO 4 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 828.0 lumens
Efficiency: N/A
Efficacy: 82.4 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

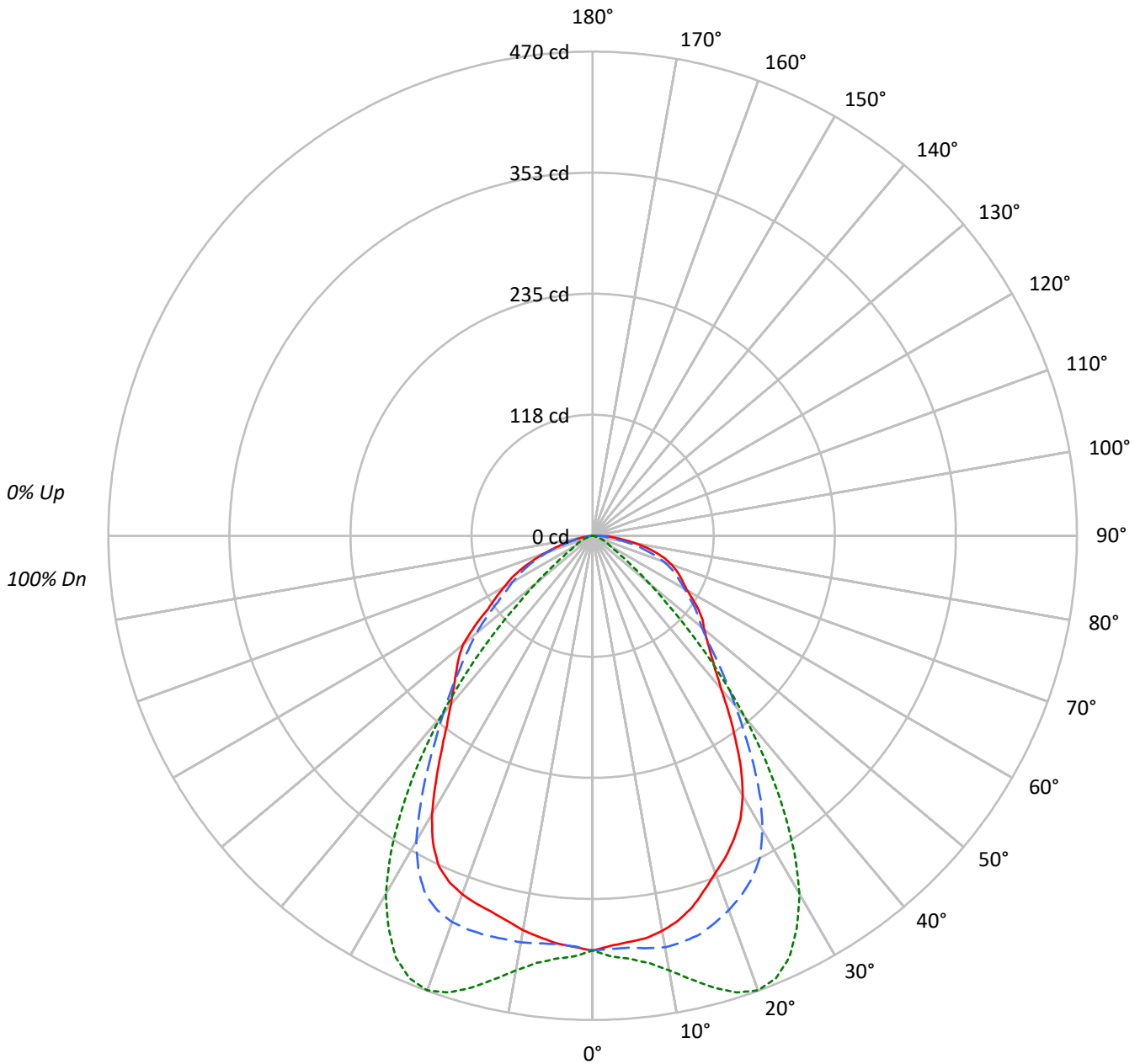
Input Watts (W): 10.05
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				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	110	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87				87
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76				76
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66				66
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58				58
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52				52
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47				47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	54	48	44	42				42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38				38
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35				35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32				32

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	100	100	100
5°	99	103	99
10°	99	108	98
15°	96	117	98
20°	92	125	98
25°	89	124	97
30°	84	115	90
35°	74	98	78
40°	63	75	70
45°	57	49	66
50°	55	28	64
55°	55	15	54
60°	53	10	49
65°	55	8	45
70°	59	6	37
75°	62	4	25
80°	61	3	16
85°	63	2	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.5	4.7
10°-20°	115.4	13.9
20°-30°	176.0	21.3
30°-40°	175.7	21.2
40°-50°	129.5	15.6
50°-60°	88.5	10.7
60°-70°	62.5	7.5
70°-80°	33.4	4.0
80°-90°	8.6	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°	329.9	39.8
0°-40°	505.6	61.1
0°-60°	723.6	87.4
0°-90°	828.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	828.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	403	403	403	403	403	
5°	396	401	412	398	397	38
15°	373	401	454	401	378	105
25°	325	367	452	384	354	149
35°	242	273	322	281	256	151
45°	162	170	139	182	187	127
55°	126	121	34	112	124	112
65°	94	89	14	69	76	93
75°	65	53	4	24	26	67
85°	22	14	1	3	0	25
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°	402.6	402.6	402.6	402.6	402.6	402.6	402.6	402.6	402.6
2.5°	398.4	400.8	401.4	405.6	408.6	405.0	399.0	399.0	399.6
5°	396.0	399.0	401.4	408.6	412.2	406.2	397.8	396.6	397.2
7.5°	394.2	398.4	403.8	414.6	418.2	410.4	399.0	394.2	393.0
10°	389.4	395.4	405.6	421.2	428.3	418.8	400.8	391.8	388.8
12.5°	382.9	390.0	403.8	428.3	440.9	426.5	400.8	387.7	382.9
15°	373.3	381.1	400.8	434.3	454.1	434.9	401.4	383.5	378.1
17.5°	360.7	370.3	394.2	437.3	464.8	442.7	400.8	380.5	374.5
20°	348.2	359.5	386.5	437.3	469.6	445.7	399.0	377.5	370.3
22.5°	337.4	348.8	377.5	431.9	464.8	442.1	393.6	372.1	363.7
25°	324.8	336.8	366.7	420.6	451.7	431.3	384.1	361.3	353.6
27.5°	310.5	323.6	351.8	402.6	428.9	411.6	366.1	344.0	335.6
30°	291.3	303.3	329.6	376.9	401.4	384.7	342.2	319.5	311.7
32.5°	268.0	278.8	303.3	345.8	364.3	350.6	311.1	291.9	283.0
35°	241.7	251.3	272.8	306.3	321.8	313.5	280.6	262.6	256.0
37.5°	217.2	224.3	242.3	266.8	276.4	271.0	250.7	237.5	232.1
40°	193.8	201.0	215.4	227.3	229.7	231.5	225.5	217.2	214.2
42.5°	175.9	182.5	191.4	190.2	183.1	193.2	202.8	201.6	199.2
45°	162.1	166.9	169.9	151.9	139.4	156.1	181.9	188.4	187.2
47.5°	150.8	153.1	151.4	121.4	98.7	121.4	163.3	176.5	176.5
50°	141.2	143.0	138.2	101.1	71.2	97.5	147.2	161.5	163.9
52.5°	134.6	135.2	129.2	85.5	49.1	77.2	129.8	142.4	144.2
55°	125.6	126.2	120.8	74.2	34.1	61.0	112.5	123.8	123.8
57.5°	115.5	116.7	111.3	64.6	23.9	50.8	99.3	110.1	110.7
60°	105.9	106.5	102.9	57.4	19.7	43.7	89.7	98.7	98.7
62.5°	99.3	99.9	95.7	53.2	16.8	38.3	79.6	87.9	88.5
65°	93.9	93.9	89.1	49.1	13.8	32.3	68.8	76.0	76.0
67.5°	87.9	86.7	82.0	43.7	10.8	26.3	58.0	63.4	62.8
70°	81.4	79.6	73.6	37.7	7.8	20.9	45.5	49.7	50.3
72.5°	73.6	71.2	63.4	31.1	6.0	15.6	33.5	37.1	37.1
75°	64.6	61.6	52.6	24.5	4.2	10.8	23.9	26.3	26.3
77.5°	53.8	50.8	41.9	17.9	3.0	7.2	16.2	17.9	17.9
80°	42.5	39.5	31.1	12.6	1.8	4.2	10.2	12.0	11.4
82.5°	31.7	28.7	20.9	7.8	1.2	2.4	6.6	6.6	6.0
85°	22.1	20.3	14.4	4.8	0.6	1.2	3.0	1.2	0.0
87.5°	15.0	13.2	9.0	2.4	0.0	0.6	0.6	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)