

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: P251825

Luminaire Tested: **LD4B10D010 EU4B10209040 4LBDW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P251825
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 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: 841.0 lumens
Efficiency: N/A
Efficacy: 83.7 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

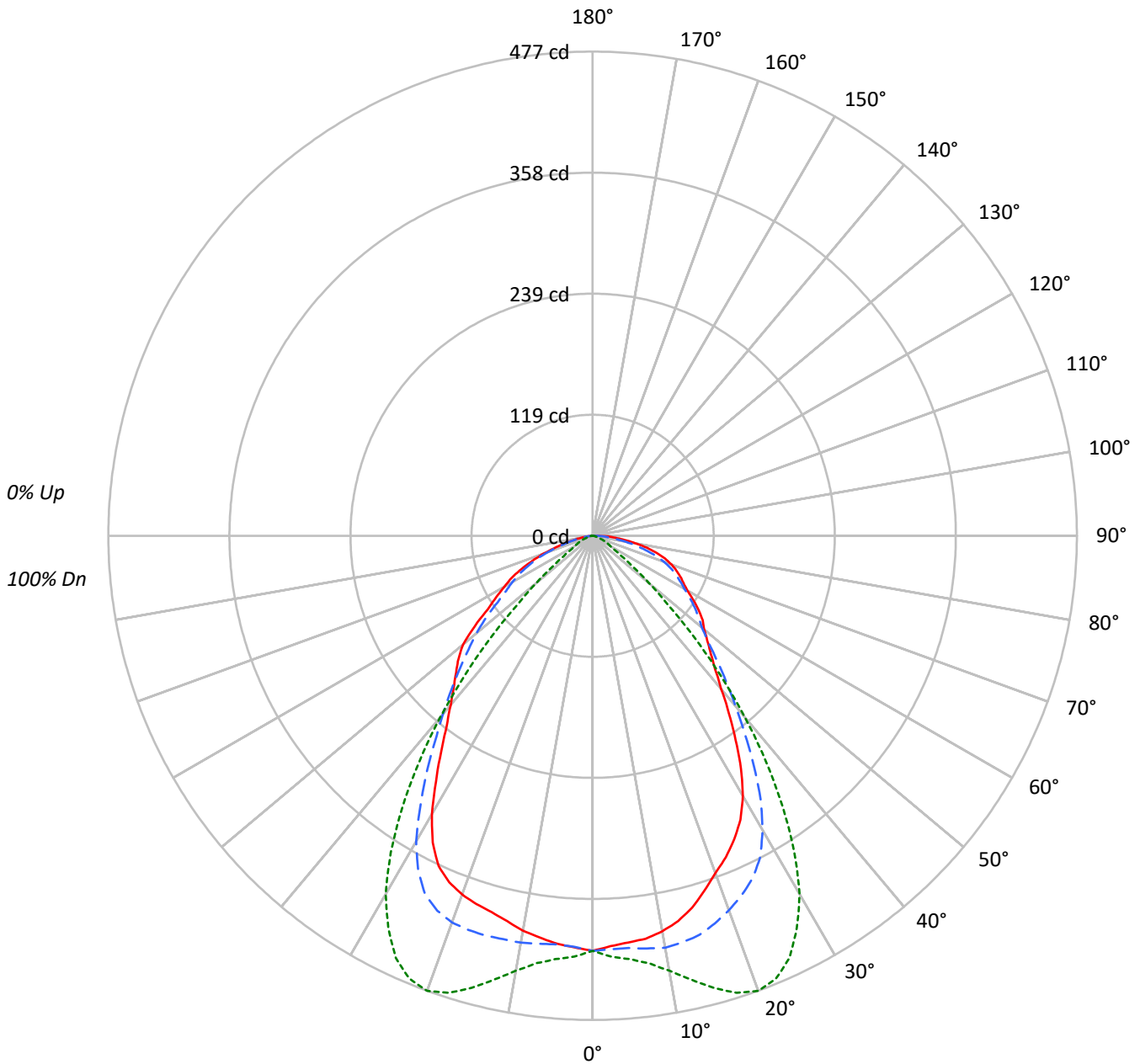
Input Watts (W): 10.05
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	102	102	102
5°	101	105	101
10°	100	110	100
15°	98	119	99
20°	94	126	100
25°	91	126	99
30°	85	117	91
35°	75	99	79
40°	64	76	71
45°	58	50	67
50°	56	28	65
55°	55	15	55
60°	54	10	50
65°	56	8	46
70°	60	6	37
75°	63	4	26
80°	62	3	17
85°	64	2	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.2	4.7
10°-20°	117.2	13.9
20°-30°	178.7	21.3
30°-40°	178.4	21.2
40°-50°	131.6	15.6
50°-60°	89.9	10.7
60°-70°	63.5	7.5
70°-80°	33.9	4.0
80°-90°	8.7	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°	335.1	39.8
0°-40°	513.5	61.1
0°-60°	735.0	87.4
0°-90°	841.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	841.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	409	409	409	409	409	
5°	402	408	419	404	404	38
15°	379	407	461	408	384	106
25°	330	372	459	390	359	151
35°	246	277	327	285	260	153
45°	165	173	142	185	190	128
55°	128	123	35	114	126	113
65°	95	90	14	70	77	94
75°	66	54	4	24	27	68
85°	22	15	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°	408.9	408.9	408.9	408.9	408.9	408.9	408.9	408.9	408.9
2.5°	404.7	407.1	407.7	412.0	415.0	411.4	405.3	405.3	405.9
5°	402.2	405.3	407.7	415.0	418.6	412.6	404.1	402.9	403.5
7.5°	400.4	404.7	410.1	421.1	424.7	416.8	405.3	400.4	399.2
10°	395.6	401.6	412.0	427.8	435.1	425.3	407.1	398.0	395.0
12.5°	388.9	396.2	410.1	435.1	447.8	433.2	407.1	393.7	388.9
15°	379.2	387.1	407.1	441.1	461.2	441.7	407.7	389.5	384.0
17.5°	366.4	376.1	400.4	444.2	472.1	449.6	407.1	386.4	380.4
20°	353.6	365.2	392.5	444.2	477.0	452.7	405.3	383.4	376.1
22.5°	342.7	354.2	383.4	438.7	472.1	449.0	399.8	377.9	369.4
25°	329.9	342.1	372.5	427.2	458.8	438.1	390.1	367.0	359.1
27.5°	315.4	328.7	357.3	408.9	435.7	418.0	371.9	349.4	340.9
30°	295.9	308.1	334.8	382.8	407.7	390.7	347.6	324.5	316.6
32.5°	272.2	283.2	308.1	351.2	370.0	356.1	316.0	296.5	287.4
35°	245.5	255.2	277.1	311.1	326.9	318.4	285.0	266.7	260.1
37.5°	220.6	227.9	246.1	271.0	280.7	275.3	254.6	241.2	235.8
40°	196.9	204.2	218.7	230.9	233.3	235.1	229.1	220.6	217.5
42.5°	178.6	185.3	194.4	193.2	185.9	196.3	206.0	204.8	202.3
45°	164.7	169.5	172.6	154.3	141.6	158.6	184.7	191.4	190.2
47.5°	153.1	155.6	153.7	123.3	100.3	123.3	165.9	179.2	179.2
50°	143.4	145.2	140.4	102.7	72.3	99.0	149.5	164.1	166.5
52.5°	136.7	137.3	131.2	86.9	49.8	78.4	131.9	144.6	146.4
55°	127.6	128.2	122.7	75.3	34.6	62.0	114.2	125.8	125.8
57.5°	117.3	118.5	113.0	65.6	24.3	51.6	100.9	111.8	112.4
60°	107.5	108.2	104.5	58.3	20.1	44.4	91.1	100.3	100.3
62.5°	100.9	101.5	97.2	54.1	17.0	38.9	80.8	89.3	89.9
65°	95.4	95.4	90.5	49.8	14.0	32.8	69.9	77.2	77.2
67.5°	89.3	88.1	83.2	44.4	10.9	26.7	58.9	64.4	63.8
70°	82.6	80.8	74.7	38.3	7.9	21.3	46.2	50.4	51.0
72.5°	74.7	72.3	64.4	31.6	6.1	15.8	34.0	37.7	37.7
75°	65.6	62.6	53.5	24.9	4.3	10.9	24.3	26.7	26.7
77.5°	54.7	51.6	42.5	18.2	3.0	7.3	16.4	18.2	18.2
80°	43.1	40.1	31.6	12.8	1.8	4.3	10.3	12.2	11.5
82.5°	32.2	29.2	21.3	7.9	1.2	2.4	6.7	6.7	6.1
85°	22.5	20.7	14.6	4.9	0.6	1.2	3.0	1.2	0.0
87.5°	15.2	13.4	9.1	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)