

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: P251847

Luminaire Tested: **LD4B20D010 EU4B10209024 4LBDW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P251847
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 EU4B10209024 4LBDW1LI
Description: PORTFOLIO 4 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2400K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1321.0 lumens
Efficiency: N/A
Efficacy: 63.5 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

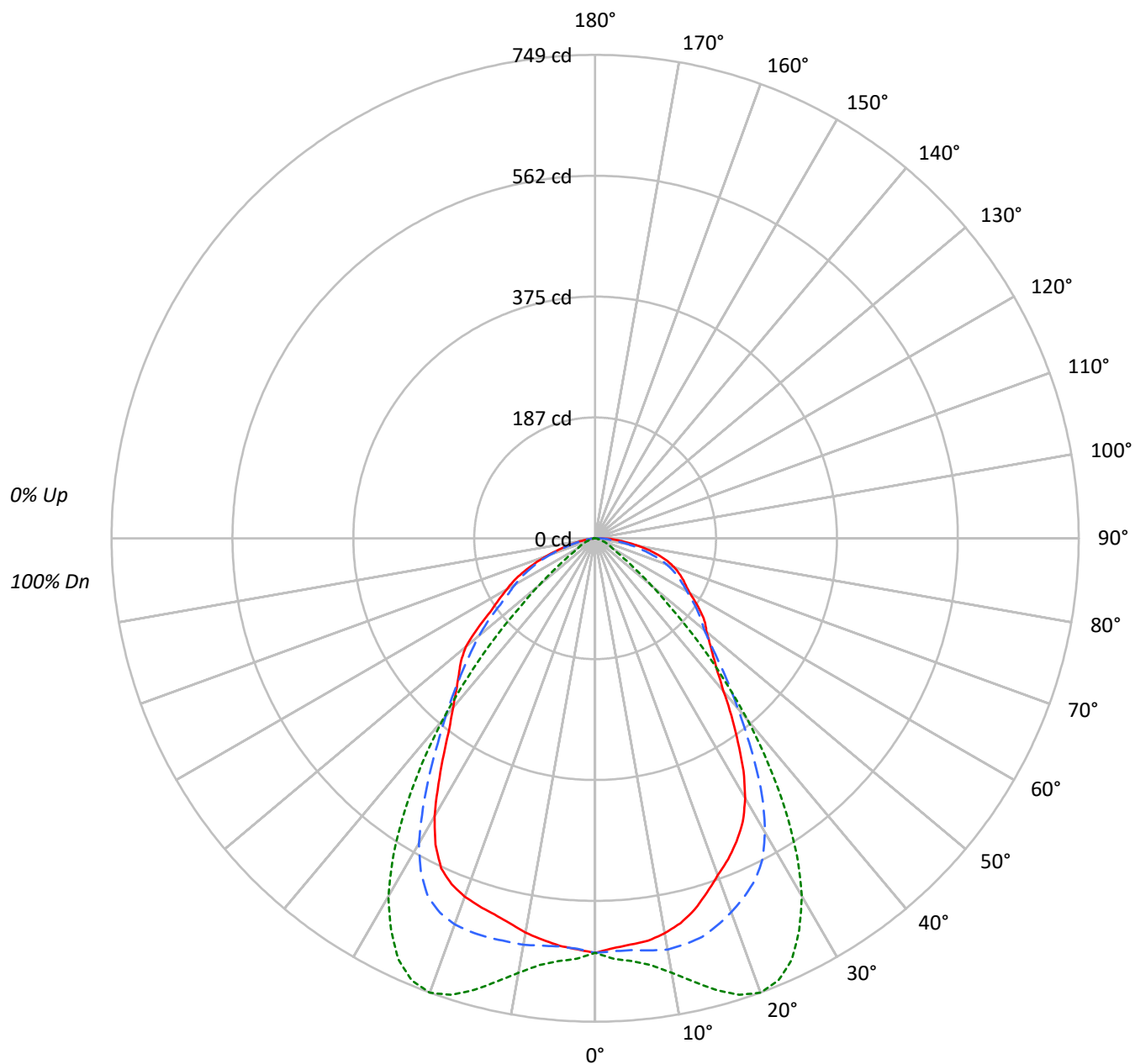
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P251847

CATALOG NUMBER: LD4B20D010 EU4B10209024 4LBDW1LI

Luminous Intensity Polar Plot





TEST NUMBER: P251847

CATALOG NUMBER: LD4B20D010 EU4B10209024 4LBDW1LI

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	160	160	160
5°	158	164	158
10°	157	173	157
15°	154	187	156
20°	147	199	157
25°	142	198	155
30°	134	184	143
35°	117	156	124
40°	101	119	111
45°	91	78	105
50°	87	44	101
55°	87	24	86
60°	84	16	78
65°	88	13	71
70°	95	9	58
75°	99	6	40
80°	97	4	26
85°	101	3	0



TEST NUMBER: P251847

CATALOG NUMBER: LD4B20D010 EU4B10209024 4LBDW1LI

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.5	4.7
10°-20°	184.1	13.9
20°-30°	280.8	21.3
30°-40°	280.3	21.2
40°-50°	206.6	15.6
50°-60°	141.2	10.7
60°-70°	99.7	7.5
70°-80°	53.2	4.0
80°-90°	13.7	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°	526.3	39.8
0°-40°	806.6	61.1
0°-60°	1154.4	87.4
0°-90°	1321.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1321.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	642	642	642	642	642	
5°	632	640	658	635	634	60
15°	596	640	724	640	603	167
25°	518	585	721	613	564	237
35°	386	435	514	448	408	241
45°	259	271	222	290	299	202
55°	200	193	54	179	198	178
65°	150	142	22	110	121	148
75°	103	84	7	38	42	107
85°	35	23	1	5	0	39
90°	0	0	0	0	0	



TEST NUMBER: P251847

CATALOG NUMBER: LD4B20D010 EU4B10209024 4LBDW1LI

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	642.3	642.3	642.3	642.3	642.3	642.3	642.3	642.3	642.3
2.5°	635.6	639.5	640.4	647.1	651.9	646.1	636.6	636.6	637.6
5°	631.8	636.6	640.4	651.9	657.6	648.0	634.7	632.8	633.7
7.5°	629.0	635.6	644.2	661.4	667.1	654.7	636.6	629.0	627.1
10°	621.3	630.9	647.1	671.9	683.4	668.1	639.5	625.1	620.4
12.5°	610.8	622.3	644.2	683.4	703.4	680.5	639.5	618.5	610.8
15°	595.6	608.0	639.5	692.9	724.4	693.9	640.4	611.8	603.2
17.5°	575.5	590.8	629.0	697.7	741.6	706.3	639.5	607.0	597.5
20°	555.5	573.6	616.6	697.7	749.2	711.0	636.6	602.2	590.8
22.5°	538.3	556.4	602.2	689.1	741.6	705.3	628.0	593.6	580.3
25°	518.2	537.3	585.1	671.0	720.6	688.1	612.7	576.5	564.1
27.5°	495.3	516.3	561.2	642.3	684.3	656.6	584.1	548.8	535.4
30°	464.8	483.9	525.9	601.3	640.4	613.7	545.9	509.7	497.3
32.5°	427.6	444.8	483.9	551.7	581.2	559.3	496.3	465.8	451.4
35°	385.6	400.9	435.2	488.7	513.5	500.1	447.6	419.0	408.5
37.5°	346.5	357.9	386.5	425.7	440.9	432.4	399.9	378.9	370.3
40°	309.2	320.7	343.6	362.7	366.5	369.4	359.8	346.5	341.7
42.5°	280.6	291.1	305.4	303.5	292.1	308.3	323.5	321.6	317.8
45°	258.6	266.3	271.1	242.4	222.4	249.1	290.1	300.6	298.7
47.5°	240.5	244.3	241.5	193.7	157.5	193.7	260.6	281.6	281.6
50°	225.2	228.1	220.5	161.3	113.6	155.6	234.8	257.7	261.5
52.5°	214.7	215.7	206.2	136.5	78.3	123.1	207.1	227.2	230.0
55°	200.4	201.4	192.8	118.3	54.4	97.4	179.4	197.6	197.6
57.5°	184.2	186.1	177.5	103.1	38.2	81.1	158.4	175.6	176.6
60°	168.9	169.9	164.2	91.6	31.5	69.7	143.2	157.5	157.5
62.5°	158.4	159.4	152.7	84.9	26.7	61.1	126.9	140.3	141.3
65°	149.8	149.8	142.2	78.3	22.0	51.5	109.8	121.2	121.2
67.5°	140.3	138.4	130.8	69.7	17.2	42.0	92.6	101.2	100.2
70°	129.8	126.9	117.4	60.1	12.4	33.4	72.5	79.2	80.2
72.5°	117.4	113.6	101.2	49.6	9.5	24.8	53.4	59.2	59.2
75°	103.1	98.3	84.0	39.1	6.7	17.2	38.2	42.0	42.0
77.5°	85.9	81.1	66.8	28.6	4.8	11.5	25.8	28.6	28.6
80°	67.8	63.0	49.6	20.0	2.9	6.7	16.2	19.1	18.1
82.5°	50.6	45.8	33.4	12.4	1.9	3.8	10.5	10.5	9.5
85°	35.3	32.5	22.9	7.6	1.0	1.9	4.8	1.9	0.0
87.5°	23.9	21.0	14.3	3.8	0.0	1.0	1.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093





— 0°-180° - - 45°-225° - - - 90°-270°







(END OF REPORT)