

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: P274366

Luminaire Tested: **LD4B20DE010W2N2050 EU4B1020W2N902050 4LBCSSQ1MB**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P274366
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1808-906-3)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD4B20DE010W2N2050 EU4B1020W2N902050 4LBCSSQ1MB
Description: PORTFOLIO 4" W2N SQ DOWNLIGHT, CAST SHALLOW WITH MATTE BLACK FINISH
Light Source: W2N 2000K-5000K CCT TUNING RANGE
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1269.1 lumens
Efficiency: N/A
Efficacy: 45.3 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

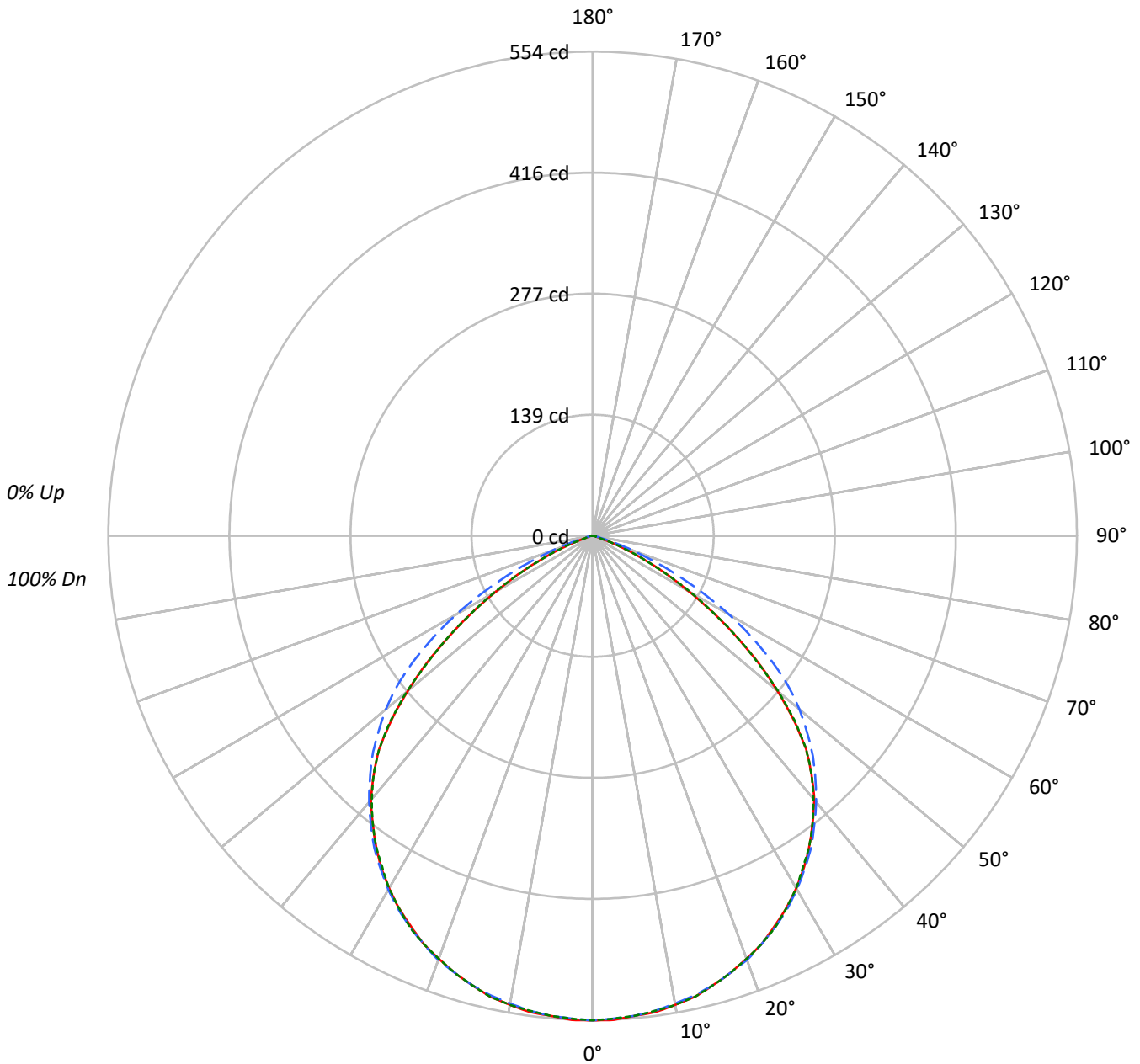
Input Watts (W): 28
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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																			
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88																			
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77																			
3	95	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	69	67																			
4	87	77	69	63	85	75	68	62	73	67	62	71	65	61	69	64	60	58																			
5	81	69	61	55	79	68	60	55	66	59	54	64	58	53	62	57	53	51																			
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45																			
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	40																			
8	65	52	44	39	63	51	44	38	50	43	38	49	43	38	48	42	38	36																			
9	60	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	32																			
10	57	44	37	32	55	44	36	32	43	36	31	42	36	31	41	35	31	30																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	42443	42443	42443
5°	42360	42360	42360
10°	42360	42235	42360
15°	42181	42181	42181
20°	41942	42072	41942
25°	41612	41747	41747
30°	41170	41311	41170
35°	40414	40713	40414
40°	39419	39738	39259
45°	37389	38591	37389
50°	32830	36784	33021
55°	26636	33402	26850
60°	19396	27647	19886
65°	12044	19506	12044
70°	4968	10630	4968
75°	946	3283	946
80°	1411	1411	1411
85°	2810	2810	2810



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.4	4.1
10°-20°	150.2	11.8
20°-30°	227.3	17.9
30°-40°	270.7	21.3
40°-50°	268.6	21.2
50°-60°	198.9	15.7
60°-70°	86.5	6.8
70°-80°	11.4	0.9
80°-90°	3.1	0.2
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°	429.9	33.9
0°-40°	700.7	55.2
0°-60°	1168.2	92.0
0°-90°	1269.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1269.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	554	554	554	554	554	
5°	551	553	551	551	551	52
15°	532	532	532	531	532	150
25°	493	493	494	494	494	227
35°	432	434	436	434	432	270
45°	345	352	356	350	345	263
55°	200	222	250	223	201	179
65°	66	82	108	84	66	68
75°	3	5	11	5	3	7
85°	3	3	3	3	3	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	554.5	554.5	554.5	554.5	554.5
2.5°	554.5	552.9	552.9	552.9	552.9
5°	551.3	552.9	551.3	551.3	551.3
7.5°	549.8	549.8	548.2	548.2	548.2
10°	545.0	545.0	543.4	543.4	545.0
12.5°	540.3	538.7	538.7	538.7	540.3
15°	532.3	532.3	532.3	530.8	532.3
17.5°	524.4	524.4	524.4	524.4	524.4
20°	514.9	514.9	516.5	514.9	514.9
22.5°	505.4	505.4	505.4	505.4	505.4
25°	492.7	492.7	494.3	494.3	494.3
27.5°	480.1	480.1	481.6	480.1	480.1
30°	465.8	465.8	467.4	465.8	465.8
32.5°	450.0	450.0	451.5	448.4	448.4
35°	432.5	434.1	435.7	434.1	432.5
37.5°	413.5	415.1	416.7	413.5	413.5
40°	394.5	396.1	397.7	394.5	392.9
42.5°	370.7	375.5	377.1	373.9	370.7
45°	345.4	351.7	356.5	350.1	345.4
47.5°	312.1	323.2	332.7	324.8	313.7
50°	275.7	293.1	308.9	293.1	277.3
52.5°	239.2	256.7	282.0	258.2	237.6
55°	199.6	221.8	250.3	223.4	201.2
57.5°	163.2	183.8	215.5	185.4	163.2
60°	126.7	148.9	180.6	150.5	129.9
62.5°	96.6	114.1	142.6	114.1	95.1
65°	66.5	82.4	107.7	84.0	66.5
67.5°	41.2	55.5	74.5	55.5	42.8
70°	22.2	31.7	47.5	33.3	22.2
72.5°	7.9	14.3	25.3	14.3	7.9
75°	3.2	4.8	11.1	4.8	3.2
77.5°	3.2	3.2	4.8	3.2	3.2
80°	3.2	3.2	3.2	3.2	3.2
82.5°	3.2	3.2	3.2	3.2	3.2
85°	3.2	3.2	3.2	3.2	3.2
87.5°	3.2	3.2	3.2	3.2	3.2
90°	0.0	0.0	0.0	0.0	0.0



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— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)