

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: PORTFOLIO

Report Number: P430428

Luminaire Tested: **LAM4B312R309040DE01021MW**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P430428  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2007-857-8)  
Test Lab: INNOVATION CENTER (G1)  
Issue Date: 11/23/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LAM4B312R309040DE01021MW  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 30 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3911.8 lumens  
Efficiency: N/A  
Efficacy: 95.6 lumens/watt  
Spacing Criteria (0/90/45): 0.51 / 0.51 / 0.46  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

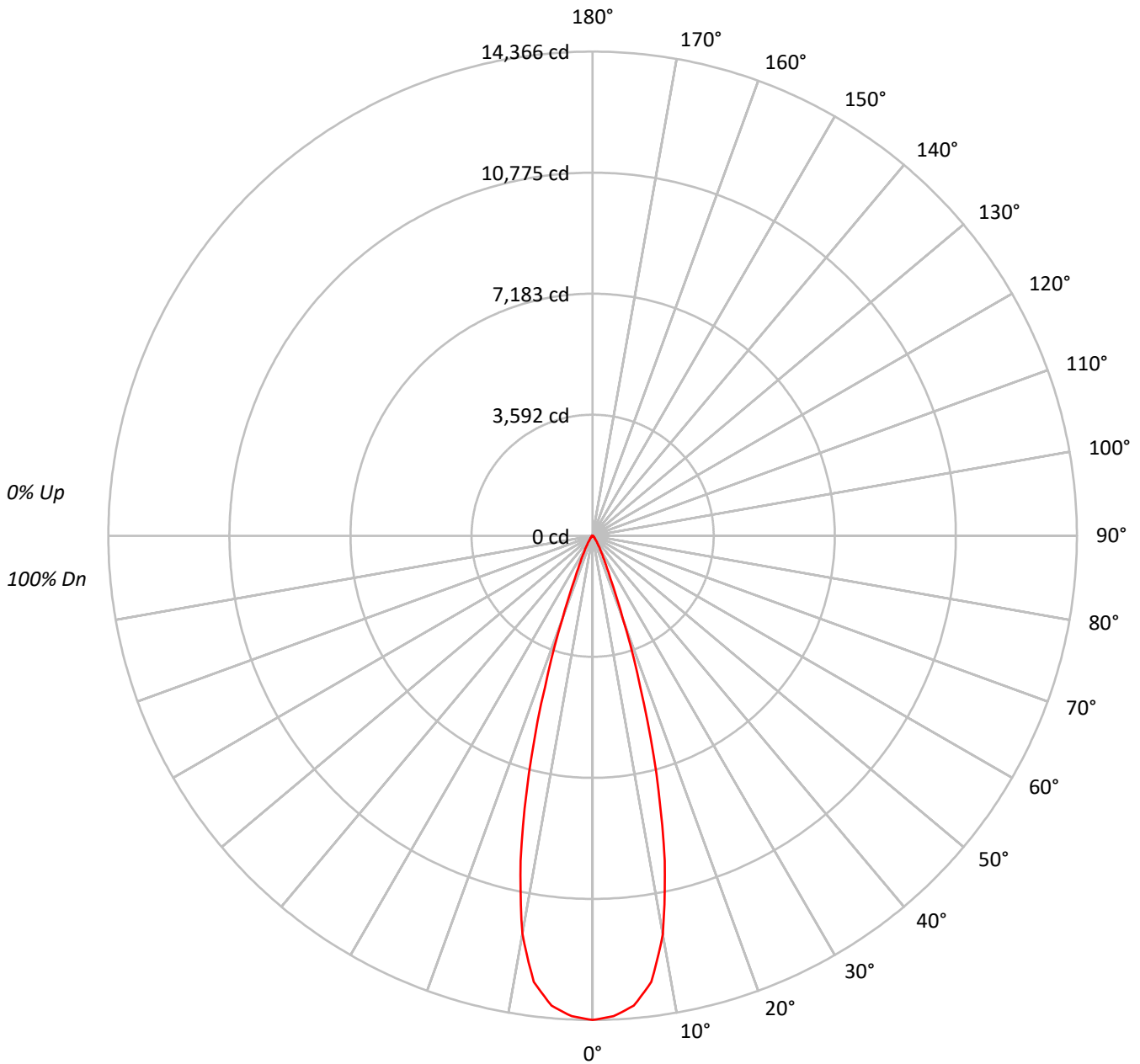
Input Watts (W): 40.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P430428

CATALOG NUMBER: LAM4B312R309040DE01021MW

### Luminous Intensity Polar Plot





TEST NUMBER: P430428

CATALOG NUMBER: LAM4B312R309040DE01021MW

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	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	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	115	113	111	109	112	111	109	107	107	105	104	103	102	101	100	99	98	96	96	95	94	93	92	91	90	89	88	87	85	84	81																																					
2	111	107	104	102	109	106	103	100	102	100	98	96	94	92	90	88	86	84	82	80	78	76	74	72	70	68	66	64	62	60	58	56	54	52	50	48	46	44	42	40	38	36	34	32	30	28	26	24	22	20	18	16	14	12	10	8	6	4	2	0								
3	107	103	99	96	105	101	98	95	99	96	94	92	90	88	86	84	82	80	78	76	74	72	70	68	66	64	62	60	58	56	54	52	50	48	46	44	42	40	38	36	34	32	30	28	26	24	22	20	18	16	14	12	10	8	6	4	2	0										
4	104	98	94	91	102	97	94	91	95	92	90	88	86	84	82	80	78	76	74	72	70	68	66	64	62	60	58	56	54	52	50	48	46	44	42	40	38	36	34	32	30	28	26	24	22	20	18	16	14	12	10	8	6	4	2	0												
5	101	95	91	87	99	94	90	87	92	89	86	84	82	80	78	76	74	72	70	68	66	64	62	60	58	56	54	52	50	48	46	44	42	40	38	36	34	32	30	28	26	24	22	20	18	16	14	12	10	8	6	4	2	0														
6	98	91	87	84	97	91	87	84	89	86	83	81	79	77	75	73	71	69	67	65	63	61	59	57	55	53	51	49	47	45	43	41	39	37	35	33	31	29	27	25	23	21	19	17	15	13	11	9	7	5	3	1	0															
7	95	88	84	81	94	88	84	81	87	83	81	79	77	75	73	71	69	67	65	63	61	59	57	55	53	51	49	47	45	43	41	39	37	35	33	31	29	27	25	23	21	19	17	15	13	11	9	7	5	3	1	0																
8	92	86	81	79	91	85	81	78	84	81	78	76	74	72	70	68	66	64	62	60	58	56	54	52	50	48	46	44	42	40	38	36	34	32	30	28	26	24	22	20	18	16	14	12	10	8	6	4	2	0																		
9	90	83	79	76	89	83	79	76	82	78	76	74	72	70	68	66	64	62	60	58	56	54	52	50	48	46	44	42	40	38	36	34	32	30	28	26	24	22	20	18	16	14	12	10	8	6	4	2	0																			
10	88	81	77	74	87	80	77	74	80	76	74	72	70	68	66	64	62	60	58	56	54	52	50	48	46	44	42	40	38	36	34	32	30	28	26	24	22	20	18	16	14	12	10	8	6	4	2	0																				

**AVERAGE LUMINANCE (cd/sqm):**

	0°
0°	7087693
5°	6932857
10°	6011137
15°	3725710
20°	1365533
25°	456466
30°	224065
35°	111728
40°	69301
45°	44028
50°	31317
55°	25547
60°	22005
65°	17278
70°	21350
75°	21160
80°	21025
85°	20945



TEST NUMBER: P430428

CATALOG NUMBER: LAM4B312R309040DE01021MW

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1275.8	32.6
10°-20°	1926.1	49.2
20°-30°	469.6	12.0
30°-40°	128.6	3.3
40°-50°	51.8	1.3
50°-60°	27.7	0.7
60°-70°	16.5	0.4
70°-80°	12.7	0.3
80°-90°	3.0	0.1
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°	3671.5	93.9
0°-40°	3800.1	97.1
0°-60°	3879.5	99.2
0°-90°	3911.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3911.8	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	14366	
5°	13998	###
15°	7294	1926
25°	838	470
35°	186	129
45°	63	52
55°	30	28
65°	15	17
75°	11	13
85°	4	3
90°	0	



TEST NUMBER: P430428

CATALOG NUMBER: LAM4B312R309040DE01021MW

**CANDELA DISTRIBUTION (FULL):**

	0°
0°	14365.6
2.5°	14269.1
5°	13998.3
7.5°	13352.7
10°	11998.5
12.5°	9876.4
15°	7294.1
17.5°	4700.7
20°	2600.8
22.5°	1387.6
25°	838.5
27.5°	567.6
30°	393.3
32.5°	267.1
35°	185.5
37.5°	137.3
40°	107.6
42.5°	81.6
45°	63.1
47.5°	51.9
50°	40.8
52.5°	37.1
55°	29.7
57.5°	26.0
60°	22.3
62.5°	18.6
65°	14.8
67.5°	14.8
70°	14.8
72.5°	14.8
75°	11.1
77.5°	11.1
80°	7.4
82.5°	3.7
85°	3.7
87.5°	0.0
90°	0.0



Report Generated By E9808895 / USPTCWHP6082093







— 0°-180°







(END OF REPORT)