

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: P431862

Luminaire Tested: **LAMR4B412R309030DE01021MW**

Issue Date: 11/23/2020

Test Information

Test Method: LM-41-14
Report Number: P431862
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: LAMR4B412R309030DE01021MW
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 30 DEG TIR OPTIC
Light Source: HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

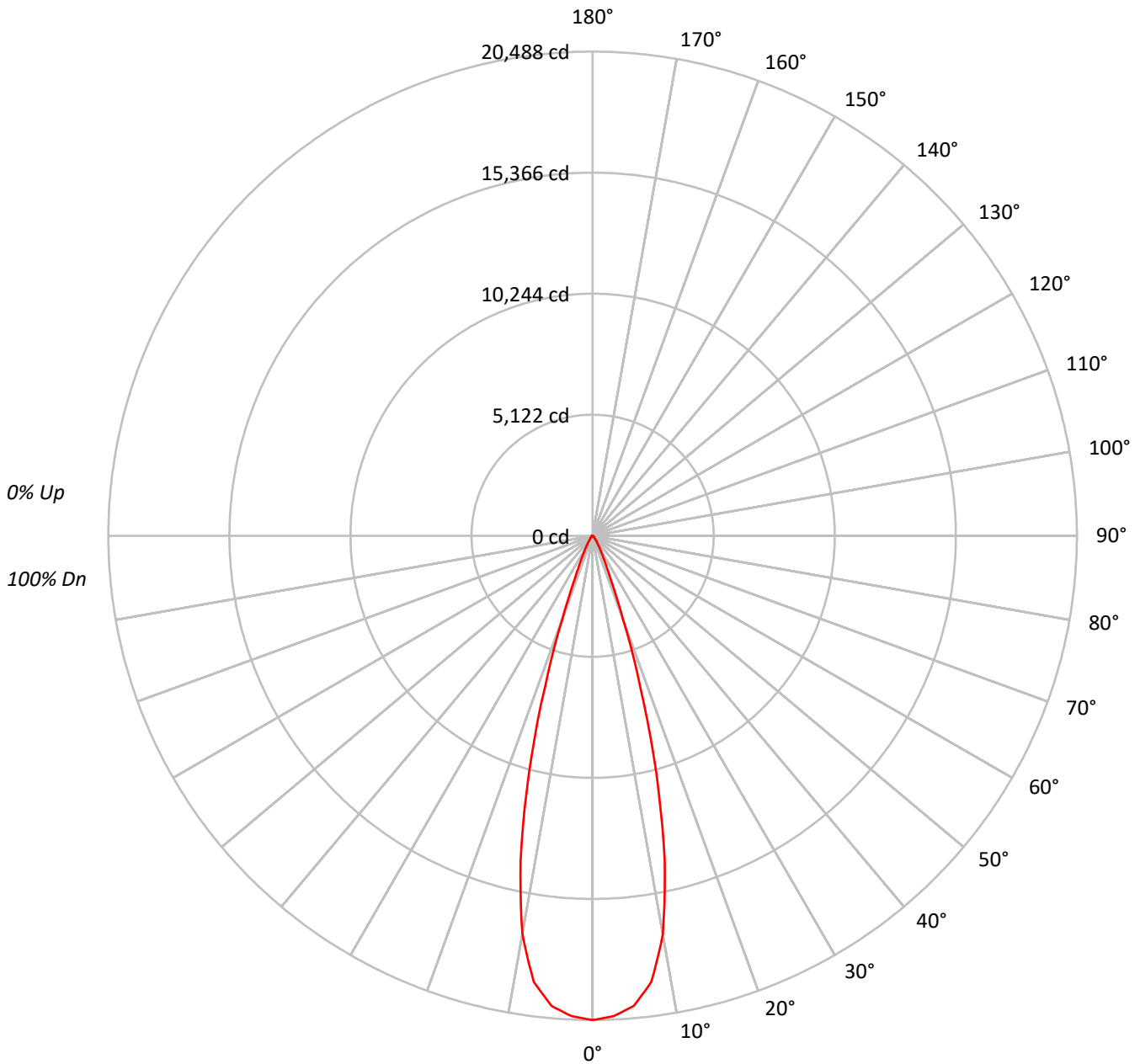
Lumens per Lamp: N/A
Luminaire Lumens: 5579.0 lumens
Efficiency: N/A
Efficacy: 103.1 lumens/watt
Spacing Criteria (0/90/45): 0.51 / 0.51 / 0.46
Luminous Opening: Circular (Dia: 0.17' x H: 0')
CIE Type: Direct

Input Watts (W): 54.1
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									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																									
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																						
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																			
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																
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								
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									
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°	10108360
5°	9887553
10°	8573003
15°	5313534
20°	1947492
25°	650975
30°	319548
35°	159370
40°	98799
45°	62797
50°	44672
55°	36386
60°	31280
65°	24750
70°	30582
75°	30310
80°	30117
85°	30003



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1819.5	32.6
10°-20°	2747.0	49.2
20°-30°	669.8	12.0
30°-40°	183.4	3.3
40°-50°	73.8	1.3
50°-60°	39.5	0.7
60°-70°	23.6	0.4
70°-80°	18.2	0.3
80°-90°	4.3	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°	5236.2	93.9
0°-40°	5419.6	97.1
0°-60°	5532.9	99.2
0°-90°	5579.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5579.0	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	20488	
5°	19964	###
15°	10403	2747
25°	1196	670
35°	265	183
45°	90	74
55°	42	39
65°	21	24
75°	16	18
85°	5	4
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	20488.0
2.5°	20350.4
5°	19964.2
7.5°	19043.5
10°	17112.1
12.5°	14085.5
15°	10402.7
17.5°	6704.1
20°	3709.2
22.5°	1979.0
25°	1195.8
27.5°	809.6
30°	560.9
32.5°	381.0
35°	264.6
37.5°	195.8
40°	153.4
42.5°	116.4
45°	90.0
47.5°	74.1
50°	58.2
52.5°	52.9
55°	42.3
57.5°	37.0
60°	31.7
62.5°	26.5
65°	21.2
67.5°	21.2
70°	21.2
72.5°	21.2
75°	15.9
77.5°	15.9
80°	10.6
82.5°	5.3
85°	5.3
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)