

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P26874

Luminaire Tested: **FMS-24-4-LD4-3HI-80/84**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P26874
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FMS-24-4-LD4-3HI-80/84
Description: FAILSAFE SURFACE MOUNT CORRECTIONAL LED 2X4 FIXTURE
Light Source: (252) NICHIA 4000K LEDS
2UT217042A8404A
Ballast/Driver: (3) OSRAM ELECTRONIC DRIVER
OT50W

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12114.1 lumens
Efficiency: N/A
Efficacy: 88.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.19 / 1.33
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

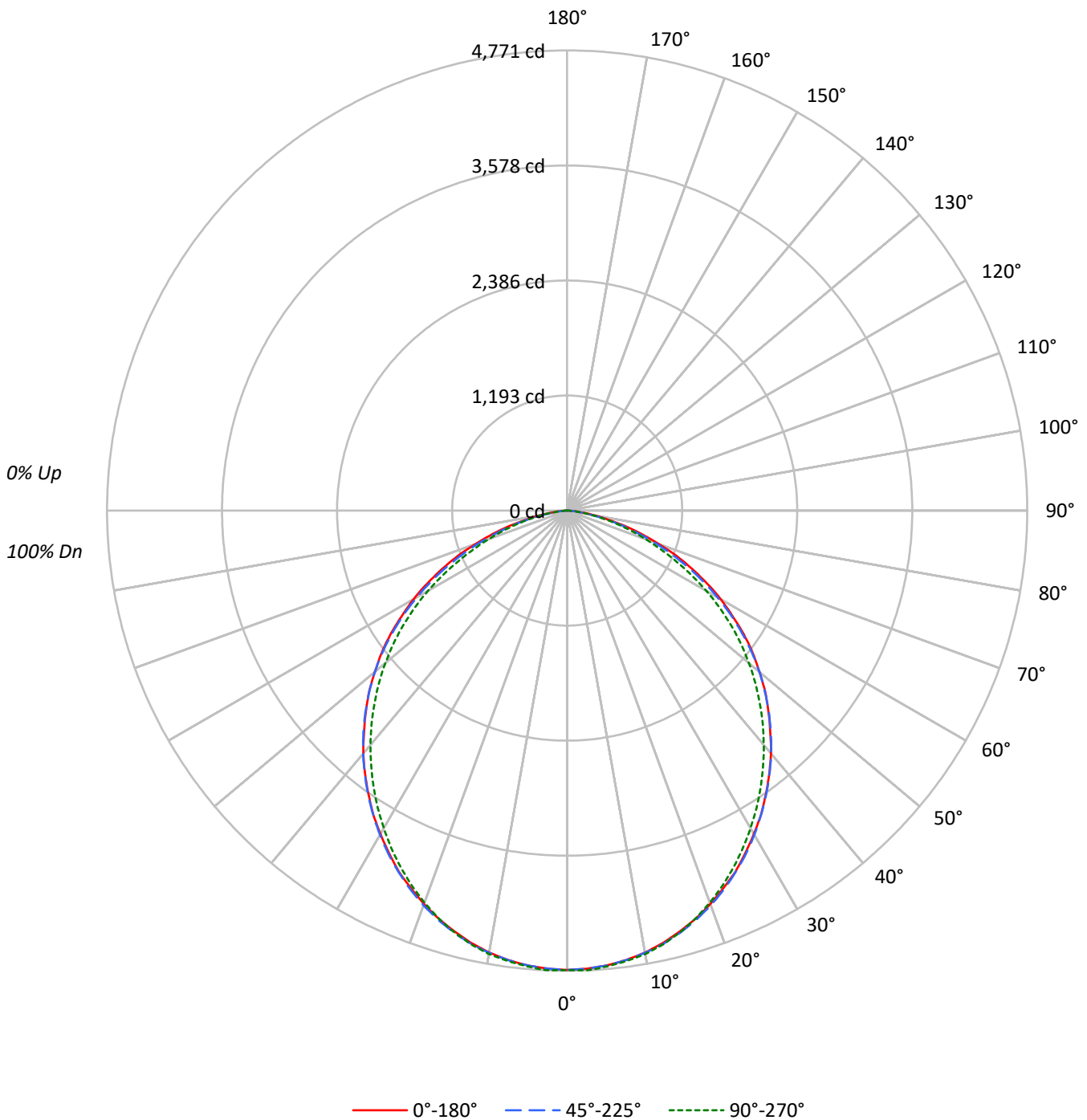
Input Watts (W): 137.2
Input Voltage (V): 120.02
Input Current (Ain): 1.1494
Voltage Rise (V): NR
Power Factor: 0.9986
Total Harmonic Distortion (THDi): 8.84%
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: 24 HR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P26874

CATALOG NUMBER: FMS-24-4-LD4-3HI-80/84

Luminous Intensity Polar Plot





TEST NUMBER: P26874

CATALOG NUMBER: FMS-24-4-LD4-3HI-80/84

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	110	105	101	98	107	103	99	96	99	96	93		95	92	90		91	89	88	85
2	100	92	86	80	98	90	85	80	87	82	78		84	80	76		81	77	74	72
3	92	81	74	67	89	80	73	67	77	71	66		74	69	65		72	67	63	61
4	84	72	64	58	82	71	63	57	69	62	56		66	60	56		64	59	55	53
5	77	65	56	50	75	64	56	49	62	54	49		60	53	48		58	52	48	46
6	72	59	50	44	70	58	49	43	56	48	43		54	48	43		53	47	42	40
7	66	53	45	39	65	52	44	38	51	44	38		49	43	38		48	42	38	36
8	62	49	40	35	60	48	40	34	47	39	34		45	39	34		44	38	34	32
9	58	45	37	31	56	44	36	31	43	36	31		42	35	31		41	35	31	29
10	54	41	33	28	53	41	33	28	40	33	28		39	32	28		38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6409	6409	6409
5°	6393	6394	6407
10°	6357	6361	6379
15°	6291	6310	6305
20°	6214	6236	6194
25°	6130	6139	6059
30°	6016	6033	5907
35°	5898	5908	5749
40°	5775	5779	5571
45°	5617	5629	5375
50°	5449	5449	5151
55°	5243	5194	4870
60°	4957	4844	4489
65°	4540	4374	3976
70°	3977	3741	3399
75°	3234	2942	2740
80°	2278	2007	1929
85°	1158	1050	1065



TEST NUMBER: P26874

CATALOG NUMBER: FMS-24-4-LD4-3HI-80/84

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	449.8	3.7
10°-20°	1276.6	10.5
20°-30°	1899.1	15.7
30°-40°	2235.6	18.5
40°-50°	2251.9	18.6
50°-60°	1941.7	16.0
60°-70°	1341.2	11.1
70°-80°	615.0	5.1
80°-90°	103.2	0.9
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°	3625.5	29.9
0°-40°	5861.1	48.4
0°-60°	10054.7	83.0
0°-90°	12114.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12114.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4763	4763	4763	4763	4763	
5°	4733	4737	4734	4745	4744	449
15°	4516	4523	4530	4537	4526	1274
25°	4129	4137	4135	4116	4081	1900
35°	3591	3606	3597	3551	3500	2247
45°	2952	2955	2958	2883	2825	2278
55°	2235	2202	2214	2128	2076	1993
65°	1426	1404	1374	1304	1249	1412
75°	622	607	566	538	527	664
85°	75	74	68	68	69	113
90°	0	0	0	0	0	



TEST NUMBER: P26874

CATALOG NUMBER: FMS-24-4-LD4-3HI-80/84

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4763	4763	4763	4763	4763
2.5°	4753	4756	4752	4765	4771
5°	4733	4737	4734	4745	4744
7.5°	4699	4702	4700	4713	4711
10°	4653	4654	4656	4672	4669
12.5°	4591	4596	4602	4613	4605
15°	4516	4523	4530	4537	4526
17.5°	4436	4442	4449	4451	4433
20°	4340	4353	4355	4349	4326
22.5°	4236	4251	4250	4238	4209
25°	4129	4137	4135	4116	4081
27.5°	4003	4019	4014	3987	3946
30°	3872	3890	3883	3849	3802
32.5°	3740	3750	3742	3702	3655
35°	3591	3606	3597	3551	3500
37.5°	3442	3455	3447	3393	3338
40°	3288	3296	3290	3229	3172
42.5°	3118	3128	3127	3059	3001
45°	2952	2955	2958	2883	2825
47.5°	2787	2775	2782	2702	2646
50°	2603	2589	2603	2517	2461
52.5°	2427	2398	2412	2328	2271
55°	2235	2202	2214	2128	2076
57.5°	2030	2008	2009	1930	1874
60°	1842	1807	1800	1723	1668
62.5°	1633	1604	1590	1515	1457
65°	1426	1404	1374	1304	1249
67.5°	1226	1199	1160	1098	1051
70°	1011	995	951	900	864
72.5°	810	796	752	712	693
75°	622	607	566	538	527
77.5°	438	435	400	381	377
80°	294	282	259	246	249
82.5°	169	160	147	143	145
85°	75	74	68	68	69
87.5°	23	24	25	26	27
90°	0	0	0	0	0

(END OF REPORT)