

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: P26876

Luminaire Tested: **FMS-24-2-LD4-3HI-80/84**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P26876
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FMS-24-2-LD4-3HI-80/84
Description: FAILSAFE SURFACE MOUNT CORRECTIONAL LED 2X2 FIXTURE
Light Source: (126) NICHIA 4000K LEDS
2UT217042A8404A
Ballast/Driver: (2) OSRAM ELECTRONIC DRIVER
OT50W/ OT25W

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4635.3 lumens
Efficiency: N/A
Efficacy: 68.4 lumens/watt
Spacing Criteria (0/90/45): 1 / 0.98 / 1.21
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

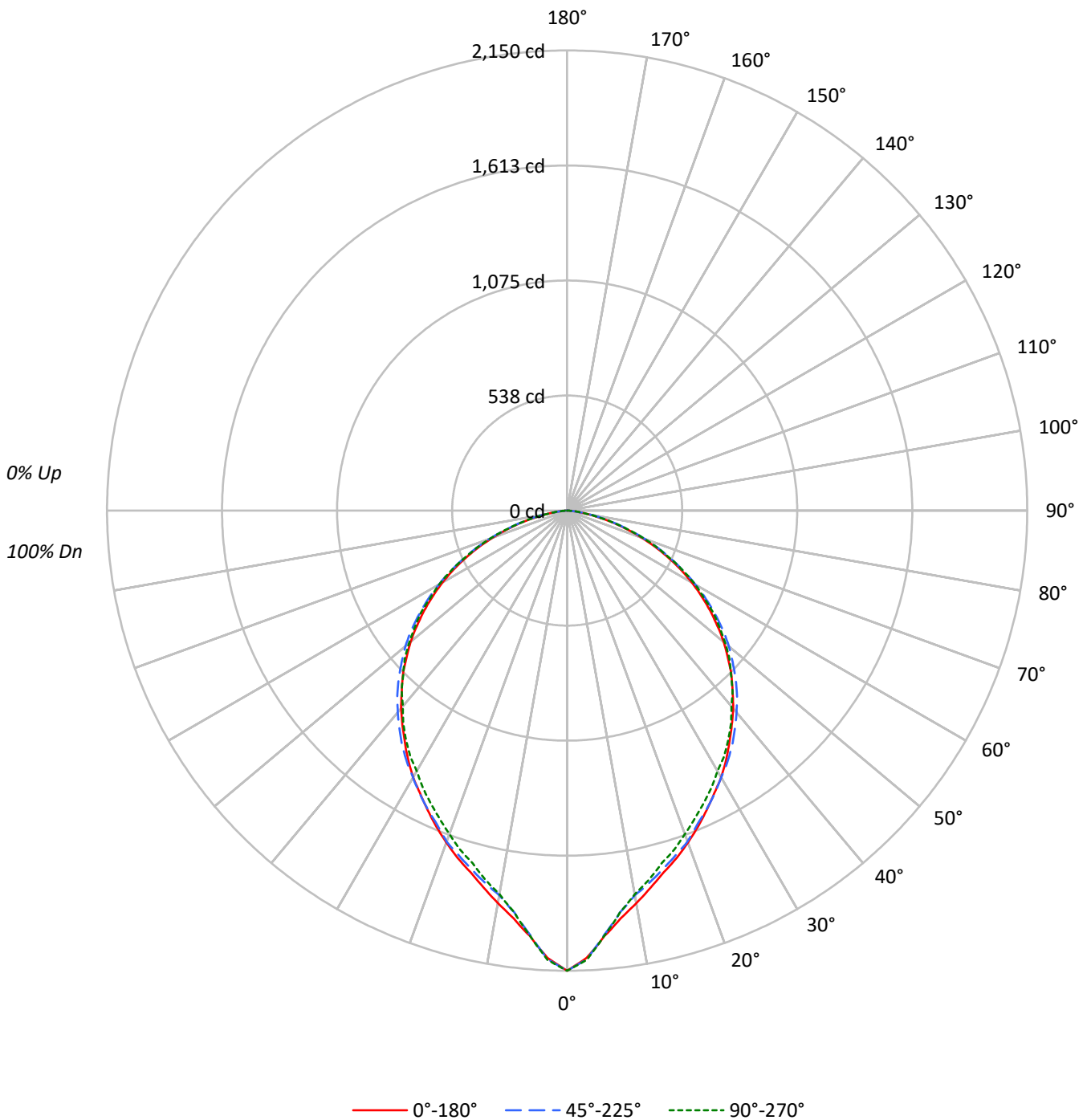
Input Watts (W): 67.8
Input Voltage (V): 120.06
Input Current (Ain): 0.56723
Voltage Rise (V): NR
Power Factor: 0.9983
Total Harmonic Distortion (THDi): 8.15%
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: 24 HR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									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	110	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85																												
2	100	92	86	80	97	90	84	79	87	82	77	83	79	76	80	77	74	72																												
3	91	81	73	67	89	80	72	67	77	70	65	74	69	64	71	67	63	61																												
4	84	72	64	57	82	71	63	57	68	61	56	66	60	55	64	59	55	52																												
5	77	65	56	49	75	64	55	49	61	54	49	60	53	48	58	52	48	46																												
6	71	58	50	43	70	57	49	43	56	48	43	54	47	42	52	47	42	40																												
7	66	53	44	38	65	52	44	38	51	43	38	49	43	38	48	42	37	36																												
8	62	48	40	34	60	48	40	34	46	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	30	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°	5786	5786	5786
5°	5392	5376	5386
10°	5088	4987	4973
15°	4870	4828	4753
20°	4725	4714	4605
25°	4581	4573	4480
30°	4471	4474	4366
35°	4343	4412	4307
40°	4240	4324	4194
45°	4133	4236	4121
50°	3998	4128	4040
55°	3824	3960	3913
60°	3622	3730	3719
65°	3330	3419	3407
70°	2919	3013	3013
75°	2339	2433	2423
80°	1596	1705	1689
85°	834	895	803



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.3	4.0
10°-20°	488.6	10.5
20°-30°	708.5	15.3
30°-40°	834.2	18.0
40°-50°	850.1	18.3
50°-60°	747.7	16.1
60°-70°	530.4	11.4
70°-80°	249.4	5.4
80°-90°	41.1	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°	1382.4	29.8
0°-40°	2216.6	47.8
0°-60°	3814.4	82.3
0°-90°	4635.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4635.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2150	2150	2150	2150	2150	
5°	1996	1994	1990	1987	1994	187
15°	1748	1747	1733	1717	1706	494
25°	1543	1549	1540	1526	1509	712
35°	1322	1348	1343	1333	1311	828
45°	1086	1110	1113	1104	1083	835
55°	815	836	844	847	834	728
65°	523	536	537	543	535	517
75°	225	231	234	235	233	241
85°	27	28	29	27	26	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2150	2150	2150	2150	2150
2.5°	2092	2098	2097	2101	2101
5°	1996	1994	1990	1987	1994
7.5°	1921	1913	1894	1887	1894
10°	1862	1846	1825	1821	1820
12.5°	1804	1795	1780	1762	1767
15°	1748	1747	1733	1717	1706
17.5°	1702	1698	1688	1676	1662
20°	1650	1655	1646	1628	1608
22.5°	1598	1603	1588	1581	1558
25°	1543	1549	1540	1526	1509
27.5°	1489	1502	1492	1477	1460
30°	1439	1449	1440	1429	1405
32.5°	1382	1403	1393	1378	1363
35°	1322	1348	1343	1333	1311
37.5°	1264	1291	1287	1275	1257
40°	1207	1232	1231	1222	1194
42.5°	1144	1168	1175	1163	1144
45°	1086	1110	1113	1104	1083
47.5°	1018	1042	1049	1047	1029
50°	955	977	986	980	965
52.5°	885	909	918	917	898
55°	815	836	844	847	834
57.5°	744	765	770	773	757
60°	673	689	693	700	691
62.5°	599	612	615	622	614
65°	523	536	537	543	535
67.5°	446	457	462	465	459
70°	371	378	383	385	383
72.5°	296	303	306	308	305
75°	225	231	234	235	233
77.5°	159	165	169	167	165
80°	103	108	110	109	109
82.5°	58	61	63	61	61
85°	27	28	29	27	26
87.5°	9	9	9	7	7
90°	0	0	0	0	0

(END OF REPORT)