

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: P183413

Luminaire Tested: **FMS-24-2-LD4-4LO-80-84**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P183413
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26875)
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-LD4-4LO-80-84
Description:
Light Source: 2UT217042A8404A
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3850.7 lumens
Efficiency: N/A
Efficacy: 77.9 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 0.98 / 1.21
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

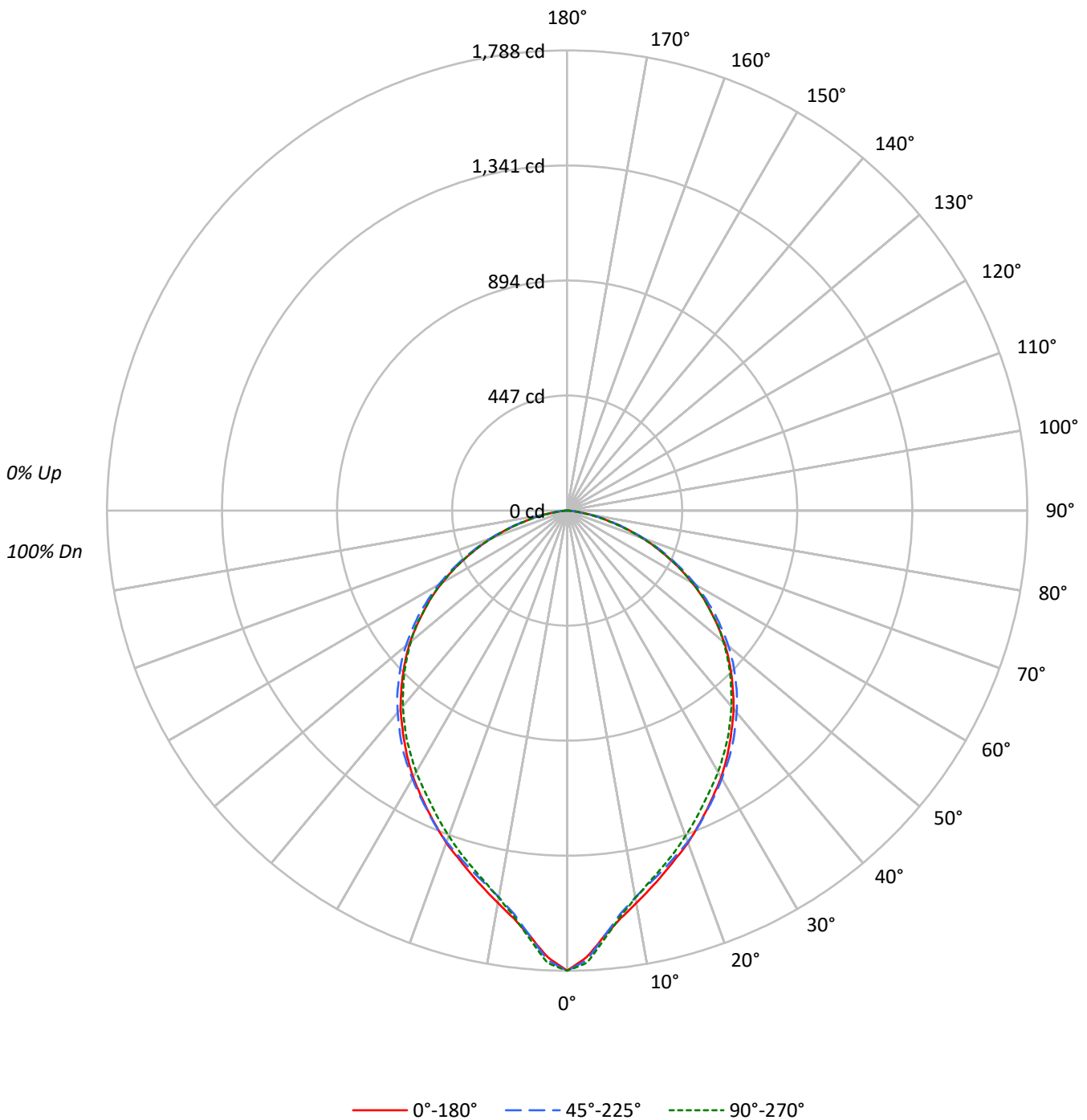
Input Watts (W): 49.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					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	84	79	76	81	77	74					72				
3	91	81	73	67	89	80	72	67	77	71	65	74	69	64	72	67	63					61				
4	84	72	64	57	82	71	63	57	68	62	56	66	60	55	64	59	55					52				
5	77	65	56	50	75	64	55	49	62	54	49	60	53	48	58	52	48					46				
6	71	58	50	43	70	58	49	43	56	48	43	54	47	42	52	47	42					40				
7	66	53	45	39	65	52	44	38	51	43	38	49	43	38	48	42	38					36				
8	62	49	40	34	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°	4810	4810	4810
5°	4481	4479	4511
10°	4231	4170	4175
15°	4059	4024	3991
20°	3934	3923	3852
25°	3809	3817	3726
30°	3720	3736	3645
35°	3619	3674	3568
40°	3536	3599	3490
45°	3438	3518	3409
50°	3337	3426	3316
55°	3189	3288	3189
60°	3019	3103	3023
65°	2765	2844	2777
70°	2439	2503	2430
75°	1958	2028	1918
80°	1376	1426	1319
85°	729	769	633



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.7	4.0
10°-20°	407.7	10.6
20°-30°	590.7	15.3
30°-40°	693.7	18.0
40°-50°	705.6	18.3
50°-60°	619.1	16.1
60°-70°	438.5	11.4
70°-80°	206.1	5.4
80°-90°	34.6	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°	1153.1	29.9
0°-40°	1846.8	48.0
0°-60°	3171.5	82.4
0°-90°	3850.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3850.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1788	1788	1788	1788	1788	
5°	1659	1661	1658	1666	1670	155
15°	1457	1456	1444	1438	1433	411
25°	1283	1292	1286	1277	1255	592
35°	1102	1122	1118	1105	1086	690
45°	903	921	924	916	896	697
55°	680	698	701	693	680	608
65°	434	449	447	441	436	431
75°	188	194	195	190	184	203
85°	24	25	25	22	20	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1787.5	1787.5	1787.5	1787.5	1787.5
2.5°	1736.5	1744.6	1748.3	1755.2	1758.9
5°	1658.9	1660.7	1658.2	1666.3	1670.1
7.5°	1597.4	1594.9	1580.6	1583.7	1588.7
10°	1548.3	1540.2	1525.9	1522.2	1527.8
12.5°	1502.3	1496.7	1482.4	1476.8	1477.4
15°	1456.9	1455.7	1444.5	1438.3	1432.7
17.5°	1413.5	1414.7	1406.0	1397.9	1389.8
20°	1373.7	1373.7	1370.0	1359.4	1345.1
22.5°	1327.7	1335.8	1330.2	1319.6	1301.0
25°	1283.0	1292.3	1285.5	1276.8	1255.0
27.5°	1238.9	1250.7	1244.5	1230.8	1213.4
30°	1197.2	1207.2	1202.2	1189.2	1173.0
32.5°	1150.0	1165.6	1161.2	1148.8	1128.9
35°	1101.6	1122.1	1118.3	1104.7	1086.0
37.5°	1053.1	1072.4	1070.5	1060.6	1038.8
40°	1006.5	1024.5	1024.5	1011.5	993.5
42.5°	954.3	974.8	976.7	963.6	943.1
45°	903.4	921.4	924.5	915.8	895.9
47.5°	850.6	867.3	873.5	862.4	843.7
50°	797.1	811.4	818.3	810.8	792.2
52.5°	738.1	756.1	759.2	752.4	741.8
55°	679.7	698.3	700.8	693.4	679.7
57.5°	623.2	641.2	638.1	635.0	623.2
60°	561.0	576.6	576.6	569.1	561.7
62.5°	499.5	515.1	512.6	506.4	500.1
65°	434.3	448.6	446.7	441.1	436.2
67.5°	372.2	384.6	381.5	377.7	372.8
70°	310.0	318.7	318.1	313.8	308.8
72.5°	247.3	254.7	254.1	250.4	246.7
75°	188.3	194.5	195.1	190.1	184.5
77.5°	136.1	140.4	140.4	134.8	132.3
80°	88.8	91.3	92.0	87.6	85.1
82.5°	50.9	52.2	53.4	49.7	46.6
85°	23.6	24.9	24.9	22.4	20.5
87.5°	8.7	8.7	8.7	7.5	6.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)