

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: P183415

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P183415
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (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-LD4-3LO-80-84
Description:
Light Source: 2UT217042A8404A
Ballast/Driver: ELECTRONIC DRIVER

Summary

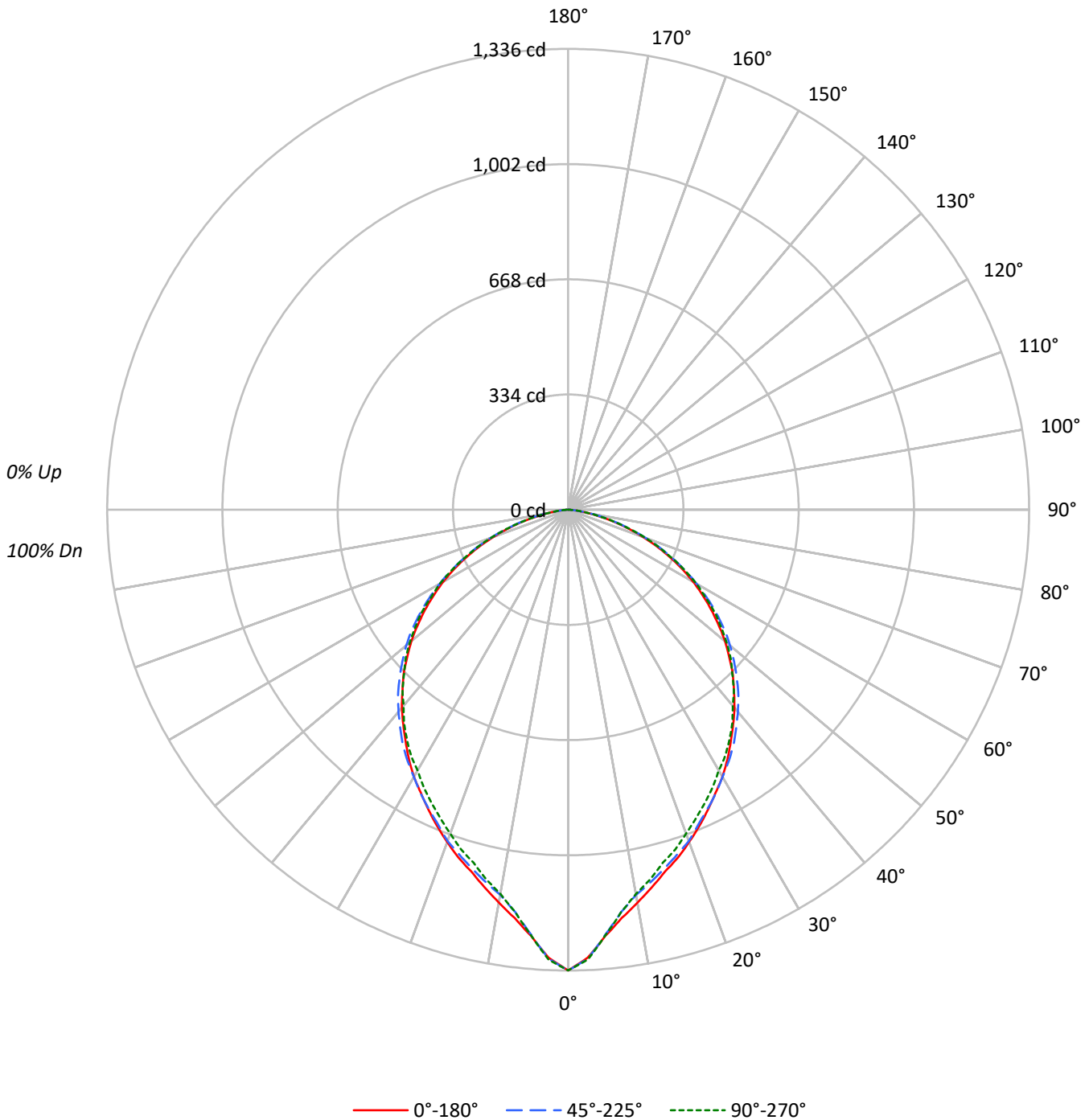
Lumens per Lamp: N/A
Luminaire Lumens: 2879.6 lumens
Efficiency: N/A
Efficacy: 77.7 lumens/watt
Spacing Criteria (0/90/45): 1 / 0.98 / 1.21
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 37.05
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					85			
2	100	92	86	80	97	90	84	79	87	82	77	83	79	76	80	77	74	72					72			
3	91	81	73	67	89	80	72	67	77	70	65	74	69	64	71	67	63	61					61			
4	84	72	64	57	82	71	63	57	68	61	56	66	60	55	64	59	55	52					52			
5	77	65	56	49	75	64	55	49	61	54	49	60	53	48	58	52	48	46					46			
6	71	58	50	43	70	57	49	43	56	48	43	54	47	42	52	47	42	40					40			
7	66	53	44	38	65	52	44	38	51	43	38	49	43	38	48	42	37	36					36			
8	62	48	40	34	60	48	40	34	46	39	34	45	39	34	44	38	34	32					32			
9	58	45	37	31	56	44	36	31	43	36	31	42	35	31	41	35	30	29					29			
10	54	41	33	28	53	41	33	28	40	33	28	39	32	28	38	32	28	26					26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3594	3594	3594
5°	3350	3340	3346
10°	3161	3098	3090
15°	3025	2999	2953
20°	2936	2928	2861
25°	2846	2841	2784
30°	2778	2780	2712
35°	2698	2741	2676
40°	2634	2687	2606
45°	2568	2631	2560
50°	2484	2564	2510
55°	2375	2460	2431
60°	2250	2317	2310
65°	2069	2124	2117
70°	1814	1872	1872
75°	1454	1512	1504
80°	992	1058	1049
85°	519	556	500



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.1	4.0
10°-20°	303.6	10.5
20°-30°	440.1	15.3
30°-40°	518.2	18.0
40°-50°	528.1	18.3
50°-60°	464.5	16.1
60°-70°	329.5	11.4
70°-80°	154.9	5.4
80°-90°	25.5	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°	858.8	29.8
0°-40°	1377.0	47.8
0°-60°	2369.7	82.3
0°-90°	2879.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2879.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1336	1336	1336	1336	1336	
5°	1240	1239	1236	1234	1239	116
15°	1086	1085	1077	1067	1060	307
25°	959	962	957	948	938	442
35°	821	837	834	828	814	514
45°	675	690	691	686	673	519
55°	506	519	524	526	518	452
65°	325	333	334	337	332	321
75°	140	144	145	146	145	150
85°	17	17	18	17	16	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1335.7	1335.7	1335.7	1335.7	1335.7
2.5°	1299.6	1303.4	1302.7	1305.2	1305.2
5°	1240.0	1238.8	1236.3	1234.4	1238.8
7.5°	1193.4	1188.4	1176.6	1172.3	1176.6
10°	1156.8	1146.8	1133.8	1131.3	1130.7
12.5°	1120.7	1115.1	1105.8	1094.6	1097.7
15°	1085.9	1085.3	1076.6	1066.7	1059.8
17.5°	1057.4	1054.9	1048.7	1041.2	1032.5
20°	1025.1	1028.2	1022.6	1011.4	999.0
22.5°	992.7	995.9	986.5	982.2	967.9
25°	958.6	962.3	956.7	948.0	937.5
27.5°	925.0	933.1	926.9	917.6	907.0
30°	894.0	900.2	894.6	887.8	872.8
32.5°	858.6	871.6	865.4	856.1	846.8
35°	821.3	837.4	834.3	828.1	814.5
37.5°	785.3	802.0	799.5	792.1	780.9
40°	749.8	765.4	764.8	759.2	741.8
42.5°	710.7	725.6	730.0	722.5	710.7
45°	674.7	689.6	691.4	685.9	672.8
47.5°	632.4	647.3	651.7	650.4	639.3
50°	593.3	607.0	612.5	608.8	599.5
52.5°	549.8	564.7	570.3	569.7	557.9
55°	506.3	519.4	524.3	526.2	518.1
57.5°	462.2	475.3	478.4	480.2	470.3
60°	418.1	428.0	430.5	434.9	429.3
62.5°	372.1	380.2	382.1	386.4	381.4
65°	324.9	333.0	333.6	337.3	332.4
67.5°	277.1	283.9	287.0	288.9	285.2
70°	230.5	234.8	237.9	239.2	237.9
72.5°	183.9	188.2	190.1	191.3	189.5
75°	139.8	143.5	145.4	146.0	144.7
77.5°	98.8	102.5	105.0	103.7	102.5
80°	64.0	67.1	68.3	67.7	67.7
82.5°	36.0	37.9	39.1	37.9	37.9
85°	16.8	17.4	18.0	16.8	16.2
87.5°	5.6	5.6	5.6	4.3	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)