

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: P557132

Luminaire Tested: **FUSL-12-4-LD4-2HI-50-UNV-81-96-EDD-90**

Issue Date: 7/16/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P557132
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2105-257-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FUSL-12-4-LD4-2HI-50-UNV-81-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

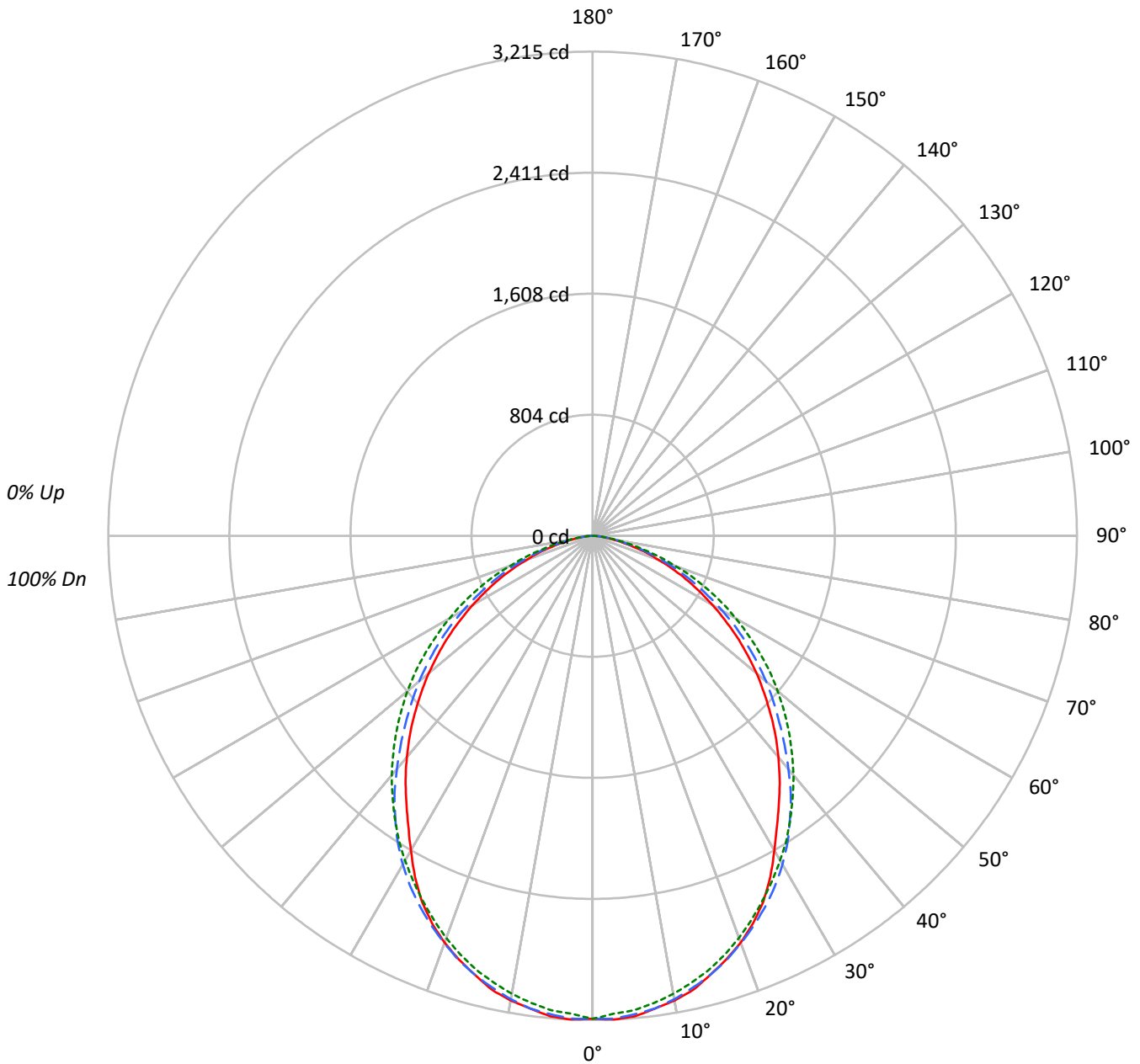
Lumens per Lamp: N/A
Luminaire Lumens: 7415.0 lumens
Efficiency: N/A
Efficacy: 85.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
Input Voltage (V): NR
Input Current (A_{in}): 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									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	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86																			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73																			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63																			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54																			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47																			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42																			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37																			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34																			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30																			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8629	8629	8629
5°	8652	8616	8542
10°	8561	8537	8439
15°	8409	8409	8313
20°	8231	8241	8135
25°	7959	8058	7930
30°	7495	7832	7736
35°	7082	7507	7520
40°	6738	7102	7288
45°	6353	6672	7014
50°	5947	6287	6715
55°	5485	5849	6352
60°	4940	5337	5908
65°	4362	4746	5373
70°	3635	4042	4566
75°	2856	3228	3573
80°	2042	2272	2520
85°	1331	1331	1257



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	301.9	4.1
10°-20°	848.2	11.4
20°-30°	1239.5	16.7
30°-40°	1407.0	19.0
40°-50°	1358.2	18.3
50°-60°	1120.4	15.1
60°-70°	746.1	10.1
70°-80°	333.9	4.5
80°-90°	59.7	0.8
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°	2389.6	32.2
0°-40°	3796.6	51.2
0°-60°	6275.3	84.6
0°-90°	7415.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7415.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3207	3207	3207	3207	3207	
5°	3203	3202	3190	3172	3162	303
15°	3018	3026	3018	3005	2984	851
25°	2681	2702	2714	2694	2671	1228
35°	2156	2186	2285	2298	2289	1351
45°	1669	1698	1753	1833	1843	1288
55°	1169	1189	1247	1316	1354	1043
65°	685	704	745	798	844	679
75°	275	290	310	325	344	300
85°	43	43	43	41	41	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3206.8	3206.8	3206.8	3206.8	3206.8
2.5°	3215.4	3216.7	3209.3	3189.5	3177.2
5°	3203.1	3201.9	3189.5	3172.3	3162.4
7.5°	3167.4	3169.8	3166.1	3141.5	3128.0
10°	3132.9	3134.1	3124.3	3104.5	3088.5
12.5°	3088.5	3087.3	3073.7	3063.9	3038.0
15°	3018.3	3025.7	3018.3	3004.8	2983.8
17.5°	2950.5	2950.5	2955.5	2932.1	2916.1
20°	2874.2	2877.9	2877.9	2859.4	2840.9
22.5°	2785.5	2796.6	2800.2	2780.5	2758.4
25°	2680.7	2701.7	2714.0	2694.3	2670.9
27.5°	2553.9	2585.9	2622.8	2608.1	2582.2
30°	2412.2	2459.0	2520.6	2508.3	2489.8
32.5°	2277.9	2324.7	2409.7	2404.8	2394.9
35°	2155.9	2185.5	2285.3	2297.6	2289.0
37.5°	2040.1	2067.2	2160.9	2189.2	2181.8
40°	1918.2	1947.7	2021.6	2072.2	2074.6
42.5°	1797.4	1825.8	1886.1	1958.8	1958.8
45°	1669.3	1697.6	1753.1	1833.2	1843.0
47.5°	1543.6	1573.2	1627.4	1707.5	1723.5
50°	1420.5	1447.6	1501.8	1579.4	1604.0
52.5°	1292.3	1321.9	1374.9	1446.3	1482.0
55°	1169.1	1188.8	1246.7	1315.7	1353.9
57.5°	1041.0	1059.5	1124.8	1183.9	1223.3
60°	917.8	941.2	991.7	1052.1	1097.7
62.5°	799.5	824.2	867.3	920.3	972.0
65°	685.0	703.5	745.3	798.3	843.9
67.5°	574.1	590.1	632.0	669.0	717.0
70°	462.0	482.9	513.7	549.5	580.3
72.5°	372.1	380.7	406.5	432.4	464.4
75°	274.7	289.5	310.5	325.2	343.7
77.5°	197.1	205.7	218.1	230.4	247.6
80°	131.8	135.5	146.6	149.1	162.6
82.5°	80.1	82.5	85.0	86.2	91.2
85°	43.1	43.1	43.1	40.7	40.7
87.5°	24.6	24.6	20.9	17.2	12.3
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)