

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: P557085

Luminaire Tested: **FUSL-12-4-LD4-2HI-40-UNV-82-96-EDD**

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: P557085
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-40-UNV-82-96-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

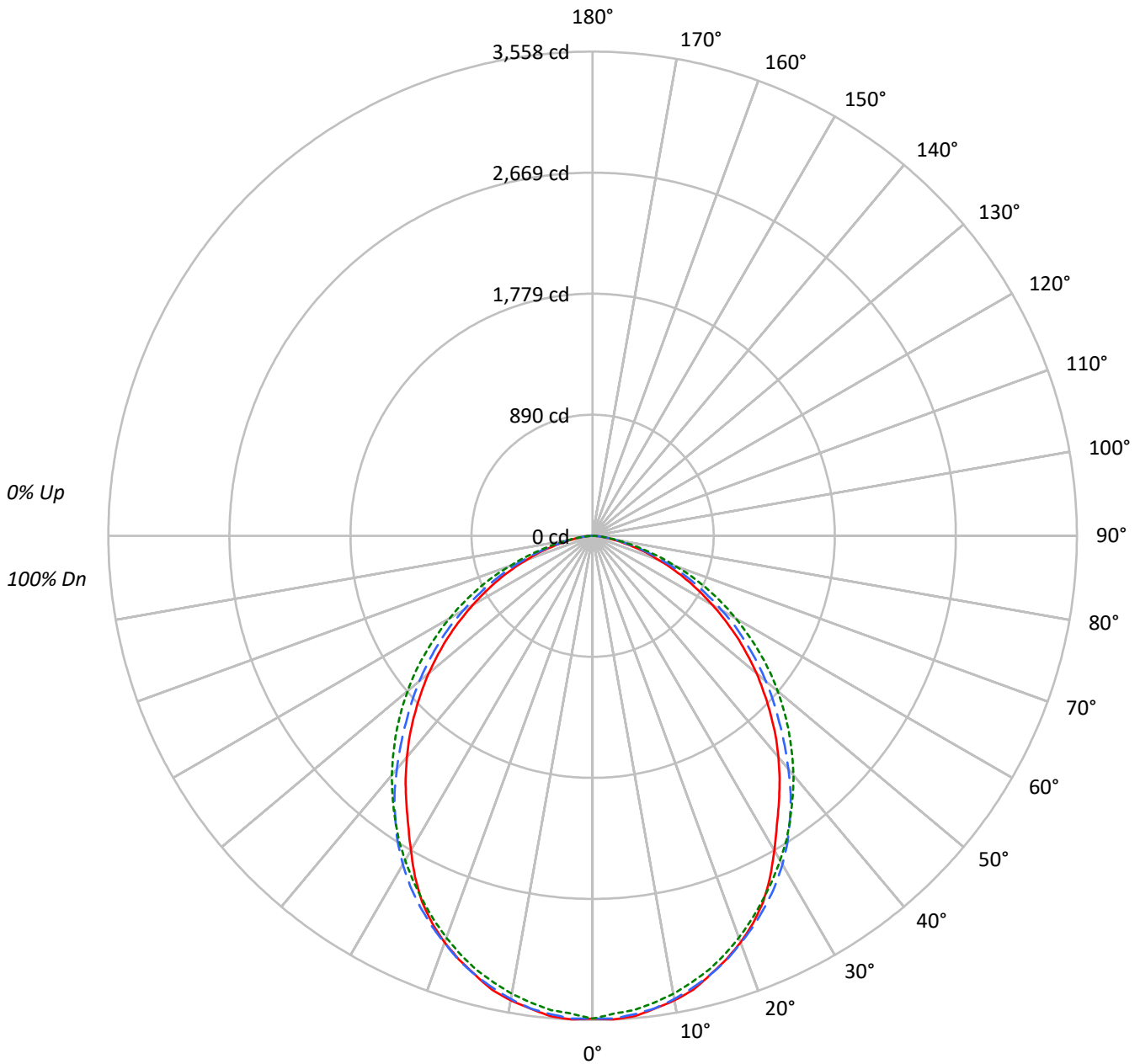
Lumens per Lamp: N/A
Luminaire Lumens: 8204.0 lumens
Efficiency: N/A
Efficacy: 95.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	9548	9548	9548
5°	9573	9532	9451
10°	9471	9445	9337
15°	9304	9304	9197
20°	9107	9118	9001
25°	8807	8916	8774
30°	8293	8666	8560
35°	7836	8306	8319
40°	7455	7857	8063
45°	7029	7381	7760
50°	6579	6956	7430
55°	6069	6472	7028
60°	5465	5906	6536
65°	4826	5251	5945
70°	4021	4472	5051
75°	3161	3571	3954
80°	2259	2514	2788
85°	1473	1473	1389



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	334.1	4.1
10°-20°	938.5	11.4
20°-30°	1371.4	16.7
30°-40°	1556.7	19.0
40°-50°	1502.7	18.3
50°-60°	1239.7	15.1
60°-70°	825.5	10.1
70°-80°	369.4	4.5
80°-90°	66.1	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°	2643.9	32.2
0°-40°	4200.6	51.2
0°-60°	6943.0	84.6
0°-90°	8204.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8204.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3548	3548	3548	3548	3548	
5°	3544	3543	3529	3510	3499	335
15°	3340	3348	3340	3324	3301	941
25°	2966	2989	3003	2981	2955	1358
35°	2385	2418	2528	2542	2532	1495
45°	1847	1878	1940	2028	2039	1425
55°	1294	1315	1379	1456	1498	1155
65°	758	778	825	883	934	751
75°	304	320	344	360	380	332
85°	48	48	48	45	45	64
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3548.0	3548.0	3548.0	3548.0	3548.0
2.5°	3557.6	3558.9	3550.7	3528.9	3515.3
5°	3543.9	3542.6	3528.9	3509.9	3498.9
7.5°	3504.4	3507.1	3503.0	3475.8	3460.8
10°	3466.2	3467.6	3456.7	3434.9	3417.2
12.5°	3417.2	3415.8	3400.8	3389.9	3361.3
15°	3339.5	3347.6	3339.5	3324.5	3301.3
17.5°	3264.5	3264.5	3270.0	3244.1	3226.3
20°	3180.0	3184.1	3184.1	3163.6	3143.2
22.5°	3081.9	3094.1	3098.2	3076.4	3051.9
25°	2966.0	2989.2	3002.8	2981.0	2955.1
27.5°	2825.6	2861.0	2901.9	2885.6	2857.0
30°	2668.9	2720.6	2788.8	2775.2	2754.7
32.5°	2520.3	2572.1	2666.1	2660.7	2649.8
35°	2385.3	2418.1	2528.5	2542.1	2532.5
37.5°	2257.2	2287.2	2390.8	2422.1	2414.0
40°	2122.3	2155.0	2236.8	2292.6	2295.4
42.5°	1988.7	2020.0	2086.8	2167.2	2167.2
45°	1846.9	1878.3	1939.6	2028.2	2039.1
47.5°	1707.9	1740.6	1800.6	1889.2	1906.9
50°	1571.6	1601.6	1661.6	1747.4	1774.7
52.5°	1429.8	1462.6	1521.2	1600.2	1639.7
55°	1293.5	1315.3	1379.4	1455.7	1498.0
57.5°	1151.8	1172.2	1244.5	1309.9	1353.5
60°	1015.5	1041.4	1097.3	1164.0	1214.5
62.5°	884.6	911.9	959.6	1018.2	1075.4
65°	757.9	778.3	824.6	883.3	933.7
67.5°	635.2	652.9	699.2	740.1	793.3
70°	511.1	534.3	568.4	607.9	642.0
72.5°	411.6	421.2	449.8	478.4	513.9
75°	304.0	320.3	343.5	359.8	380.3
77.5°	218.1	227.6	241.3	254.9	274.0
80°	145.8	149.9	162.2	164.9	179.9
82.5°	88.6	91.3	94.1	95.4	100.9
85°	47.7	47.7	47.7	45.0	45.0
87.5°	27.3	27.3	23.2	19.1	13.6
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)