

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: P557704

Luminaire Tested: **FUSL-12-4-LD4-3HI-30-UNV-81-88-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: P557704
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-LD4-3HI-30-UNV-81-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

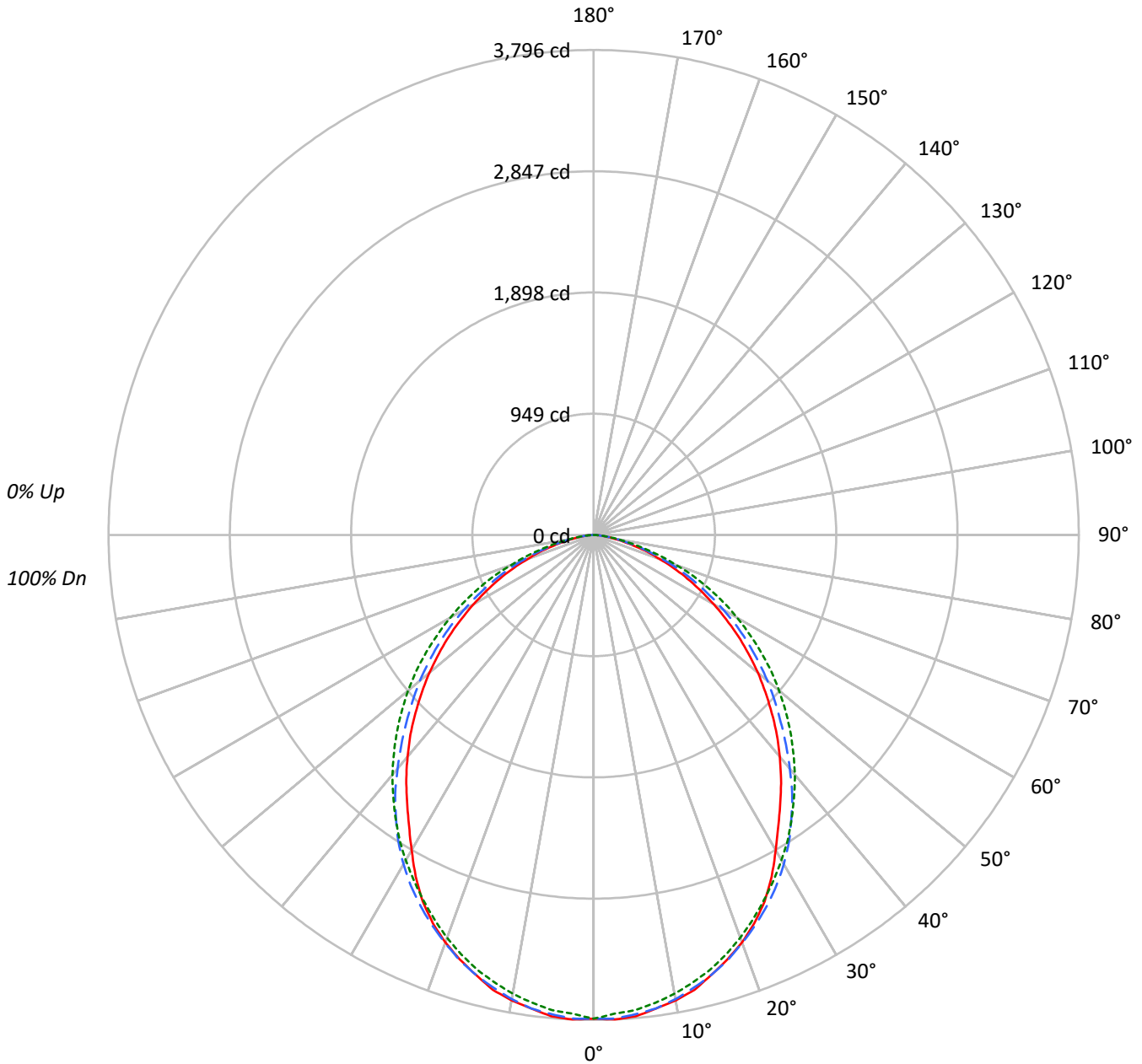
Lumens per Lamp: N/A
Luminaire Lumens: 8755.0 lumens
Efficiency: N/A
Efficacy: 67.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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									
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°	10189	10189	10189
5°	10216	10173	10086
10°	10107	10080	9965
15°	9928	9928	9815
20°	9718	9730	9606
25°	9398	9515	9364
30°	8850	9248	9134
35°	8362	8864	8878
40°	7956	8385	8605
45°	7501	7877	8281
50°	7021	7423	7929
55°	6476	6906	7500
60°	5832	6302	6975
65°	5150	5603	6344
70°	4292	4773	5390
75°	3373	3812	4219
80°	2411	2682	2975
85°	1572	1572	1482



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	356.5	4.1
10°-20°	1001.5	11.4
20°-30°	1463.5	16.7
30°-40°	1661.2	19.0
40°-50°	1603.7	18.3
50°-60°	1322.9	15.1
60°-70°	881.0	10.1
70°-80°	394.2	4.5
80°-90°	70.5	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°	2821.5	32.2
0°-40°	4482.7	51.2
0°-60°	7409.3	84.6
0°-90°	8755.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8755.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3786	3786	3786	3786	3786	
5°	3782	3780	3766	3746	3734	358
15°	3564	3572	3564	3548	3523	1005
25°	3165	3190	3204	3181	3154	1450
35°	2546	2580	2698	2713	2703	1595
45°	1971	2004	2070	2164	2176	1521
55°	1380	1404	1472	1554	1599	1232
65°	809	831	880	943	996	802
75°	324	342	367	384	406	355
85°	51	51	51	48	48	69
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3786.3	3786.3	3786.3	3786.3	3786.3
2.5°	3796.5	3797.9	3789.2	3765.9	3751.4
5°	3781.9	3780.5	3765.9	3745.6	3733.9
7.5°	3739.8	3742.7	3738.3	3709.2	3693.2
10°	3699.0	3700.5	3688.9	3665.6	3646.7
12.5°	3646.7	3645.2	3629.2	3617.6	3587.0
15°	3563.8	3572.5	3563.8	3547.8	3523.0
17.5°	3483.8	3483.8	3489.6	3461.9	3443.0
20°	3393.6	3397.9	3397.9	3376.1	3354.3
22.5°	3288.8	3301.9	3306.3	3283.0	3256.8
25°	3165.2	3189.9	3204.5	3181.2	3153.6
27.5°	3015.4	3053.2	3096.8	3079.4	3048.8
30°	2848.1	2903.4	2976.1	2961.6	2939.7
32.5°	2689.5	2744.8	2845.2	2839.4	2827.7
35°	2545.5	2580.5	2698.3	2712.8	2702.6
37.5°	2408.8	2440.8	2551.4	2584.8	2576.1
40°	2264.8	2299.7	2387.0	2446.6	2449.5
42.5°	2122.3	2155.7	2227.0	2312.8	2312.8
45°	1971.0	2004.4	2069.9	2164.4	2176.1
47.5°	1822.6	1857.5	1921.5	2016.1	2035.0
50°	1677.1	1709.1	1773.2	1864.8	1893.9
52.5°	1525.9	1560.8	1623.3	1707.7	1749.9
55°	1380.4	1403.7	1472.1	1553.5	1598.6
57.5°	1229.1	1251.0	1328.0	1397.9	1444.4
60°	1083.7	1111.3	1170.9	1242.2	1296.0
62.5°	944.0	973.1	1024.0	1086.6	1147.7
65°	808.8	830.6	880.0	942.6	996.4
67.5°	677.8	696.8	746.2	789.8	846.6
70°	545.5	570.2	606.6	648.7	685.1
72.5°	439.3	449.5	480.0	510.6	548.4
75°	324.4	341.8	366.6	384.0	405.8
77.5°	232.7	242.9	257.5	272.0	292.4
80°	155.6	160.0	173.1	176.0	192.0
82.5°	94.5	97.5	100.4	101.8	107.6
85°	50.9	50.9	50.9	48.0	48.0
87.5°	29.1	29.1	24.7	20.4	14.5
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)