

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: P557902

Luminaire Tested: **FUSL-12-4-LD4-3HI-50-UNV-81-97-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: P557902
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-50-UNV-81-97-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

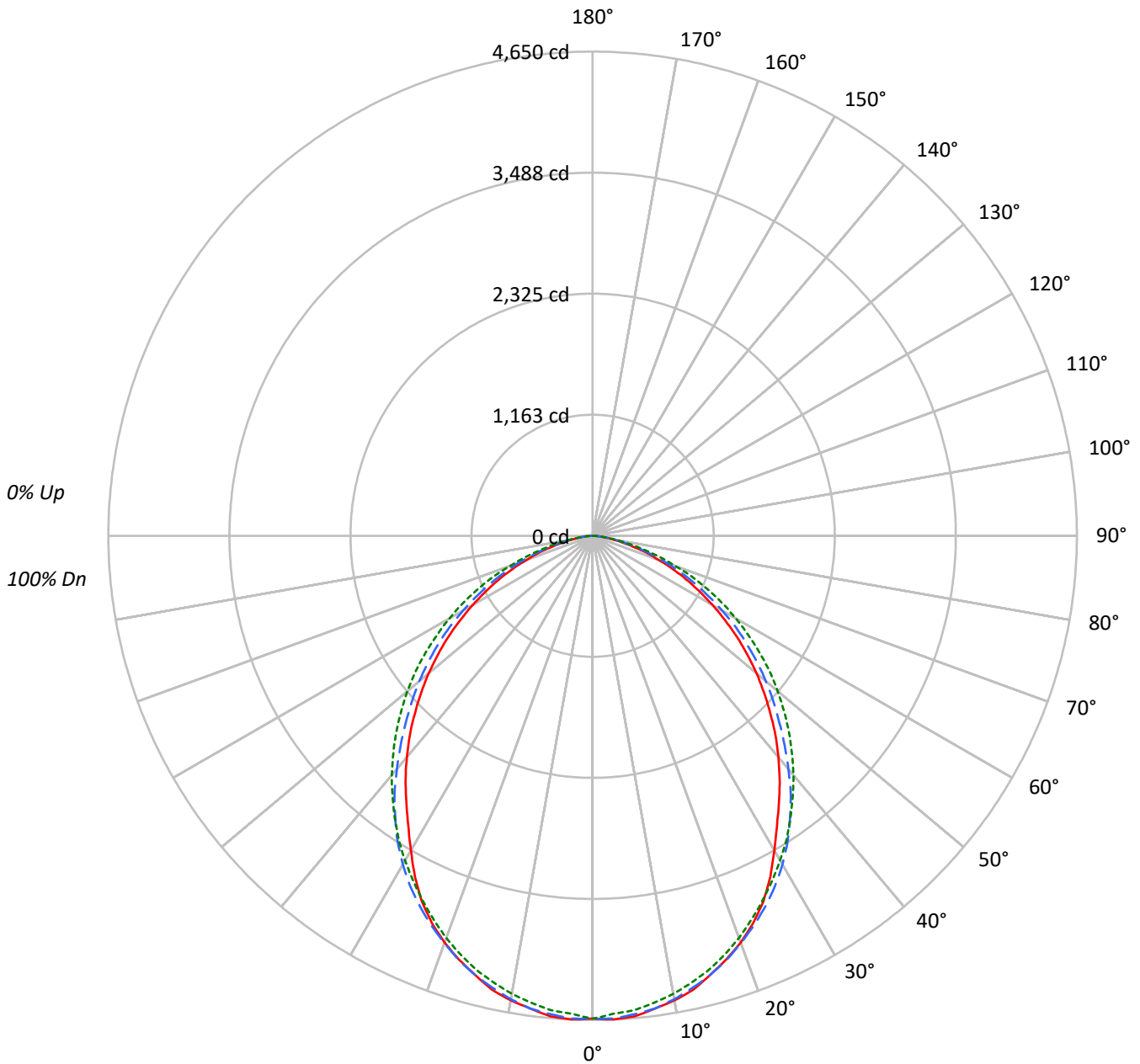
Lumens per Lamp: N/A
Luminaire Lumens: 10724.0 lumens
Efficiency: N/A
Efficacy: 82.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
Input Voltage (V): NR
Input Current (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°	12480	12480	12480
5°	12514	12461	12355
10°	12381	12347	12205
15°	12161	12161	12022
20°	11904	11919	11766
25°	11512	11655	11469
30°	10840	11327	11189
35°	10243	10858	10875
40°	9745	10271	10540
45°	9188	9649	10144
50°	8600	9092	9712
55°	7933	8459	9187
60°	7144	7719	8544
65°	6308	6863	7771
70°	5257	5846	6603
75°	4131	4668	5168
80°	2954	3285	3645
85°	1927	1927	1815



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	436.7	4.1
10°-20°	1226.7	11.4
20°-30°	1792.6	16.7
30°-40°	2034.8	19.0
40°-50°	1964.3	18.3
50°-60°	1620.4	15.1
60°-70°	1079.1	10.1
70°-80°	482.9	4.5
80°-90°	86.4	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°	3456.0	32.2
0°-40°	5490.9	51.2
0°-60°	9075.6	84.6
0°-90°	10724.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10724.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4638	4638	4638	4638	4638	
5°	4632	4631	4613	4588	4574	438
15°	4365	4376	4365	4346	4315	1231
25°	3877	3907	3925	3897	3863	1775
35°	3118	3161	3305	3323	3310	1954
45°	2414	2455	2535	2651	2666	1863
55°	1691	1719	1803	1903	1958	1509
65°	991	1017	1078	1155	1220	982
75°	397	419	449	470	497	434
85°	62	62	62	59	59	84
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4637.9	4637.9	4637.9	4637.9	4637.9
2.5°	4650.3	4652.1	4641.4	4612.9	4595.1
5°	4632.5	4630.7	4612.9	4588.0	4573.7
7.5°	4580.8	4584.4	4579.1	4543.4	4523.8
10°	4530.9	4532.7	4518.5	4490.0	4466.8
12.5°	4466.8	4465.0	4445.4	4431.2	4393.8
15°	4365.2	4375.9	4365.2	4345.6	4315.4
17.5°	4267.3	4267.3	4274.4	4240.5	4217.4
20°	4156.8	4162.1	4162.1	4135.4	4108.7
22.5°	4028.5	4044.5	4049.9	4021.4	3989.3
25°	3877.1	3907.3	3925.2	3896.7	3862.8
27.5°	3693.5	3739.9	3793.3	3771.9	3734.5
30°	3488.6	3556.3	3645.4	3627.6	3600.9
32.5°	3294.4	3362.1	3485.1	3477.9	3463.7
35°	3118.0	3160.8	3305.1	3322.9	3310.5
37.5°	2950.6	2989.7	3125.2	3166.1	3155.5
40°	2774.2	2816.9	2923.8	2996.9	3000.4
42.5°	2599.5	2640.5	2727.8	2833.0	2833.0
45°	2414.2	2455.2	2535.4	2651.2	2665.5
47.5°	2232.5	2275.3	2353.7	2469.5	2492.6
50°	2054.3	2093.5	2171.9	2284.2	2319.8
52.5°	1869.0	1911.8	1988.4	2091.8	2143.4
55°	1690.9	1719.4	1803.1	1902.9	1958.1
57.5°	1505.6	1532.3	1626.7	1712.2	1769.3
60°	1327.4	1361.2	1434.3	1521.6	1587.5
62.5°	1156.3	1192.0	1254.3	1331.0	1405.8
65°	990.6	1017.4	1077.9	1154.6	1220.5
67.5°	830.3	853.5	914.0	967.5	1037.0
70°	668.2	698.4	743.0	794.7	839.2
72.5°	538.1	550.6	588.0	625.4	671.7
75°	397.3	418.7	449.0	470.4	497.1
77.5°	285.1	297.5	315.4	333.2	358.1
80°	190.6	196.0	212.0	215.6	235.2
82.5°	115.8	119.4	122.9	124.7	131.8
85°	62.4	62.4	62.4	58.8	58.8
87.5°	35.6	35.6	30.3	24.9	17.8
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)