

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: P557893

Luminaire Tested: **FUSL-12-4-LD4-3HI-50-UNV-81-86-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: P557893
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-81-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

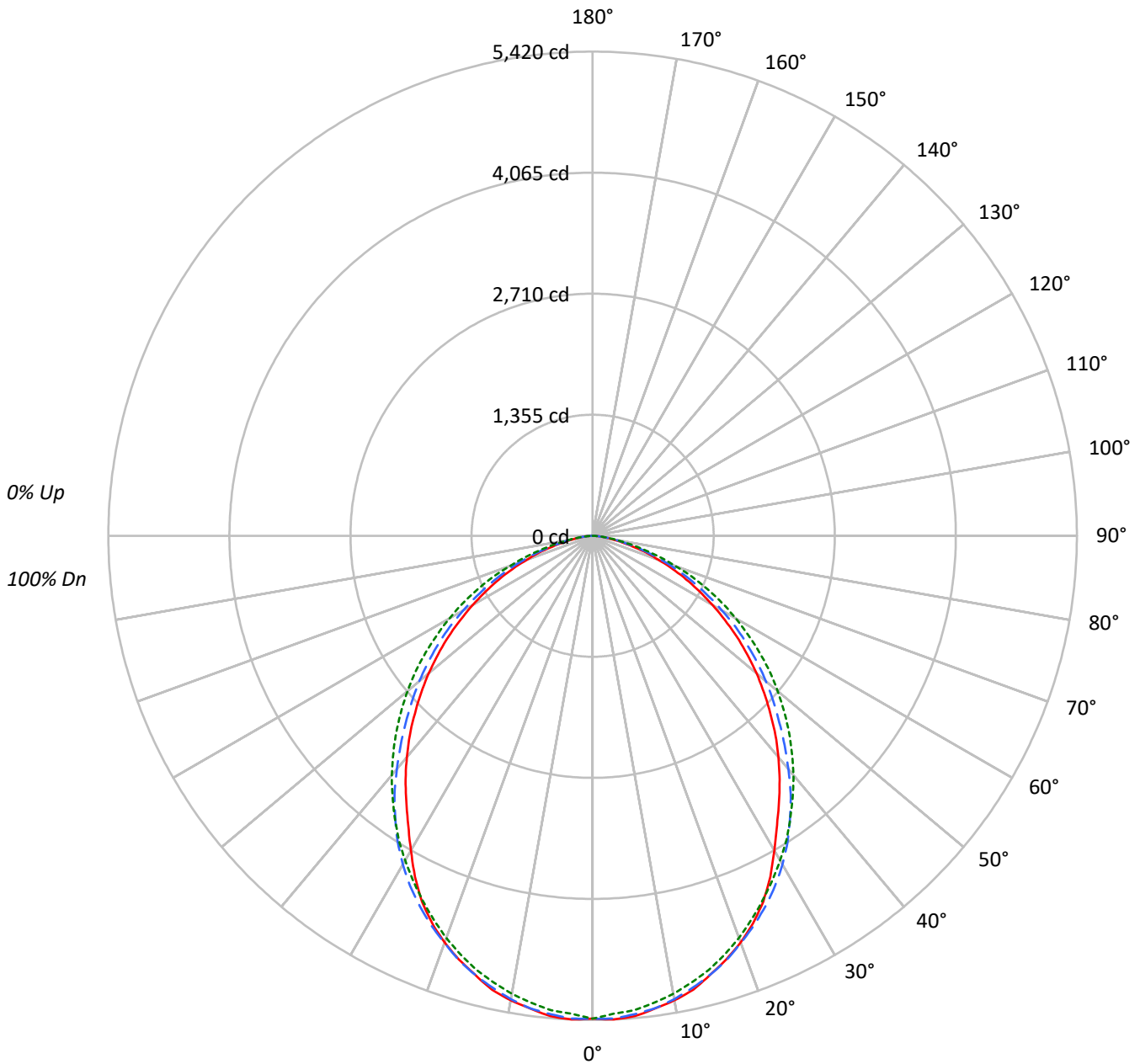
Lumens per Lamp: N/A
Luminaire Lumens: 12499.0 lumens
Efficiency: N/A
Efficacy: 96.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	14546	14546	14546
5°	14585	14523	14400
10°	14430	14390	14226
15°	14174	14174	14012
20°	13874	13892	13713
25°	13417	13583	13368
30°	12634	13202	13041
35°	11938	12655	12675
40°	11358	11971	12285
45°	10708	11246	11823
50°	10024	10598	11319
55°	9246	9860	10707
60°	8326	8997	9958
65°	7352	8000	9058
70°	6127	6814	7696
75°	4815	5441	6024
80°	3443	3829	4248
85°	2245	2245	2115



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	508.9	4.1
10°-20°	1429.8	11.4
20°-30°	2089.4	16.7
30°-40°	2371.7	19.0
40°-50°	2289.5	18.3
50°-60°	1888.7	15.1
60°-70°	1257.7	10.1
70°-80°	562.8	4.5
80°-90°	100.7	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°	4028.1	32.2
0°-40°	6399.7	51.2
0°-60°	10577.8	84.6
0°-90°	12499.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12499.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5406	5406	5406	5406	5406	
5°	5399	5397	5376	5347	5331	511
15°	5088	5100	5088	5065	5030	1434
25°	4519	4554	4575	4542	4502	2069
35°	3634	3684	3852	3873	3858	2277
45°	2814	2862	2955	3090	3107	2171
55°	1971	2004	2102	2218	2282	1759
65°	1155	1186	1256	1346	1422	1145
75°	463	488	523	548	579	506
85°	73	73	73	68	68	98
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5405.5	5405.5	5405.5	5405.5	5405.5
2.5°	5420.0	5422.1	5409.6	5376.4	5355.7
5°	5399.3	5397.2	5376.4	5347.3	5330.7
7.5°	5339.0	5343.2	5337.0	5295.4	5272.6
10°	5280.9	5283.0	5266.4	5233.1	5206.1
12.5°	5206.1	5204.1	5181.2	5164.6	5121.0
15°	5087.8	5100.2	5087.8	5064.9	5029.6
17.5°	4973.6	4973.6	4981.9	4942.4	4915.4
20°	4844.8	4851.0	4851.0	4819.9	4788.7
22.5°	4695.3	4714.0	4720.2	4687.0	4649.6
25°	4518.8	4554.1	4574.8	4541.6	4502.2
27.5°	4304.9	4358.9	4421.2	4396.2	4352.6
30°	4066.1	4145.0	4248.8	4228.0	4196.9
32.5°	3839.7	3918.6	4061.9	4053.6	4037.0
35°	3634.1	3684.0	3852.2	3872.9	3858.4
37.5°	3438.9	3484.6	3642.4	3690.2	3677.7
40°	3233.3	3283.2	3407.8	3492.9	3497.1
42.5°	3029.8	3077.6	3179.3	3301.9	3301.9
45°	2813.8	2861.6	2955.1	3090.0	3106.7
47.5°	2602.0	2651.9	2743.2	2878.2	2905.2
50°	2394.4	2440.1	2531.4	2662.3	2703.8
52.5°	2178.4	2228.2	2317.5	2438.0	2498.2
55°	1970.7	2004.0	2101.6	2217.9	2282.2
57.5°	1754.8	1785.9	1896.0	1995.7	2062.1
60°	1547.1	1586.6	1671.7	1773.5	1850.3
62.5°	1347.7	1389.3	1462.0	1551.3	1638.5
65°	1154.6	1185.8	1256.4	1345.7	1422.5
67.5°	967.7	994.7	1065.3	1127.6	1208.6
70°	778.7	814.0	866.0	926.2	978.1
72.5°	627.1	641.7	685.3	728.9	782.9
75°	463.1	488.0	523.3	548.2	579.4
77.5°	332.3	346.8	367.6	388.3	417.4
80°	222.2	228.4	247.1	251.3	274.1
82.5°	135.0	139.1	143.3	145.4	153.7
85°	72.7	72.7	72.7	68.5	68.5
87.5°	41.5	41.5	35.3	29.1	20.8
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)