

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: P557797

Luminaire Tested: **FUSL-12-4-LD4-3HI-35-UNV-93-86-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: P557797
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-35-UNV-93-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

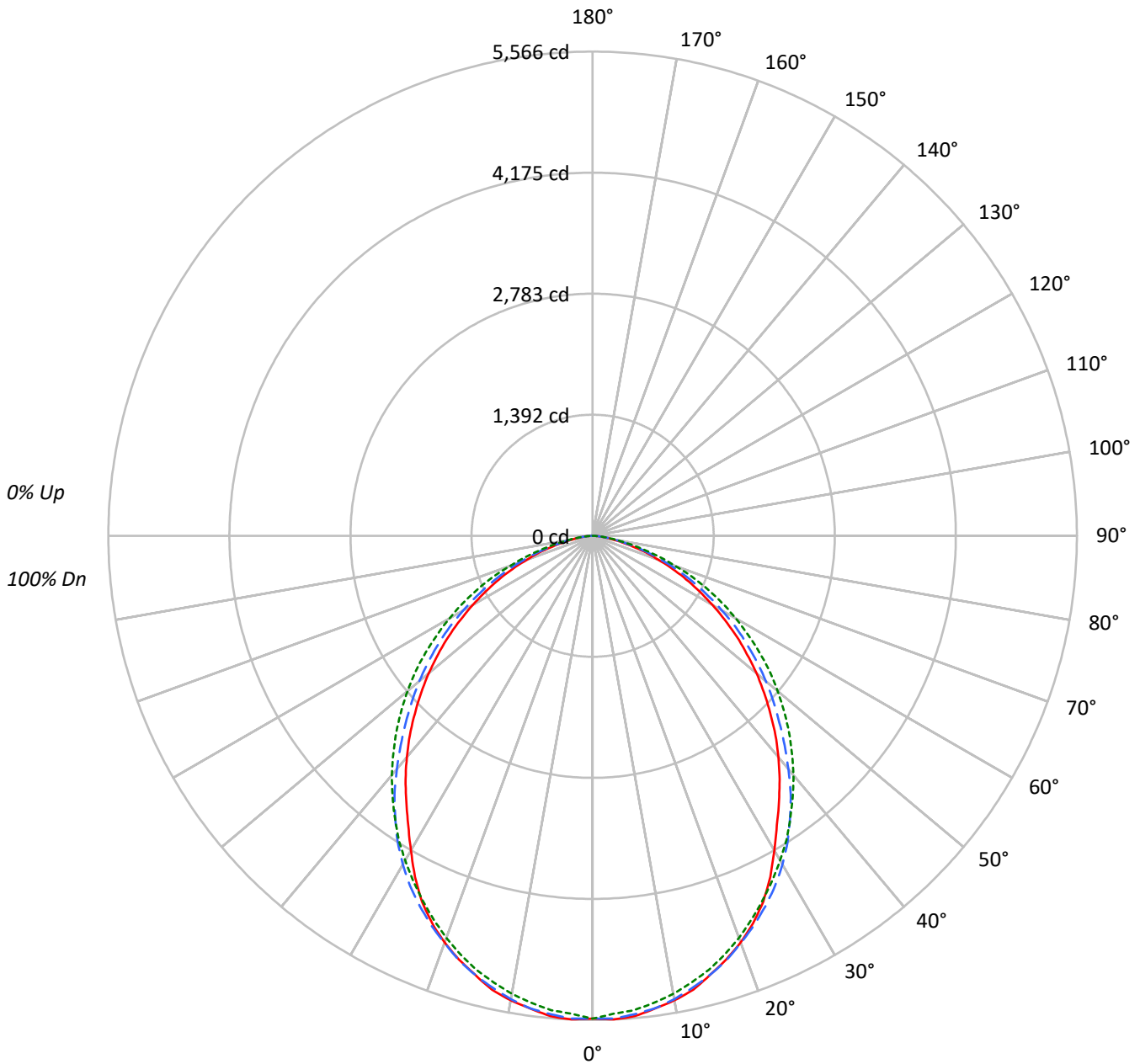
Lumens per Lamp: N/A
Luminaire Lumens: 12835.0 lumens
Efficiency: N/A
Efficacy: 99.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	14937	14937	14937
5°	14977	14914	14787
10°	14818	14777	14608
15°	14555	14555	14389
20°	14247	14265	14082
25°	13778	13949	13727
30°	12974	13557	13391
35°	12259	12995	13016
40°	11663	12293	12615
45°	10996	11548	12141
50°	10293	10883	11624
55°	9494	10125	10995
60°	8550	9239	10226
65°	7550	8215	9301
70°	6292	6996	7903
75°	4944	5587	6186
80°	3536	3933	4362
85°	2303	2303	2174



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	522.6	4.1
10°-20°	1468.2	11.4
20°-30°	2145.5	16.7
30°-40°	2435.4	19.0
40°-50°	2351.0	18.3
50°-60°	1939.4	15.1
60°-70°	1291.5	10.1
70°-80°	577.9	4.5
80°-90°	103.4	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°	4136.3	32.2
0°-40°	6571.8	51.2
0°-60°	10862.2	84.6
0°-90°	12835.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12835.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5551	5551	5551	5551	5551	
5°	5544	5542	5521	5491	5474	525
15°	5224	5237	5224	5201	5165	1473
25°	4640	4676	4698	4664	4623	2125
35°	3732	3783	3956	3977	3962	2338
45°	2890	2938	3034	3173	3190	2229
55°	2024	2058	2158	2278	2344	1806
65°	1186	1218	1290	1382	1461	1176
75°	476	501	537	563	595	520
85°	75	75	75	70	70	101
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5550.8	5550.8	5550.8	5550.8	5550.8
2.5°	5565.7	5567.9	5555.1	5521.0	5499.6
5°	5544.4	5542.3	5521.0	5491.1	5474.0
7.5°	5482.6	5486.8	5480.4	5437.8	5414.3
10°	5422.9	5425.0	5407.9	5373.8	5346.1
12.5°	5346.1	5344.0	5320.5	5303.4	5258.7
15°	5224.5	5237.3	5224.5	5201.1	5164.8
17.5°	5107.3	5107.3	5115.8	5075.3	5047.5
20°	4975.0	4981.4	4981.4	4949.5	4917.5
22.5°	4821.5	4840.7	4847.1	4813.0	4774.6
25°	4640.2	4676.5	4697.8	4663.7	4623.2
27.5°	4420.6	4476.0	4540.0	4514.4	4469.6
30°	4175.4	4256.4	4363.0	4341.7	4309.7
32.5°	3942.9	4024.0	4171.1	4162.6	4145.5
35°	3731.8	3783.0	3955.7	3977.0	3962.1
37.5°	3531.4	3578.3	3740.3	3789.4	3776.6
40°	3320.2	3371.4	3499.4	3586.8	3591.1
42.5°	3111.3	3160.3	3264.8	3390.6	3390.6
45°	2889.5	2938.5	3034.5	3173.1	3190.2
47.5°	2672.0	2723.2	2817.0	2955.6	2983.3
50°	2458.7	2505.6	2599.5	2733.8	2776.5
52.5°	2237.0	2288.1	2379.8	2503.5	2565.4
55°	2023.7	2057.8	2158.1	2277.5	2343.6
57.5°	1801.9	1833.9	1946.9	2049.3	2117.5
60°	1588.7	1629.2	1716.6	1821.1	1900.0
62.5°	1384.0	1426.6	1501.3	1593.0	1682.5
65°	1185.7	1217.6	1290.1	1381.8	1460.7
67.5°	993.7	1021.5	1094.0	1157.9	1241.1
70°	799.7	835.9	889.2	951.1	1004.4
72.5°	644.0	658.9	703.7	748.5	803.9
75°	475.5	501.1	537.4	563.0	595.0
77.5°	341.2	356.1	377.4	398.8	428.6
80°	228.2	234.6	253.8	258.0	281.5
82.5°	138.6	142.9	147.1	149.3	157.8
85°	74.6	74.6	74.6	70.4	70.4
87.5°	42.6	42.6	36.3	29.9	21.3
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)