

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: P557698

Luminaire Tested: **FUSL-12-4-LD4-3HI-30-UNV-81-85-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: P557698
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-81-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

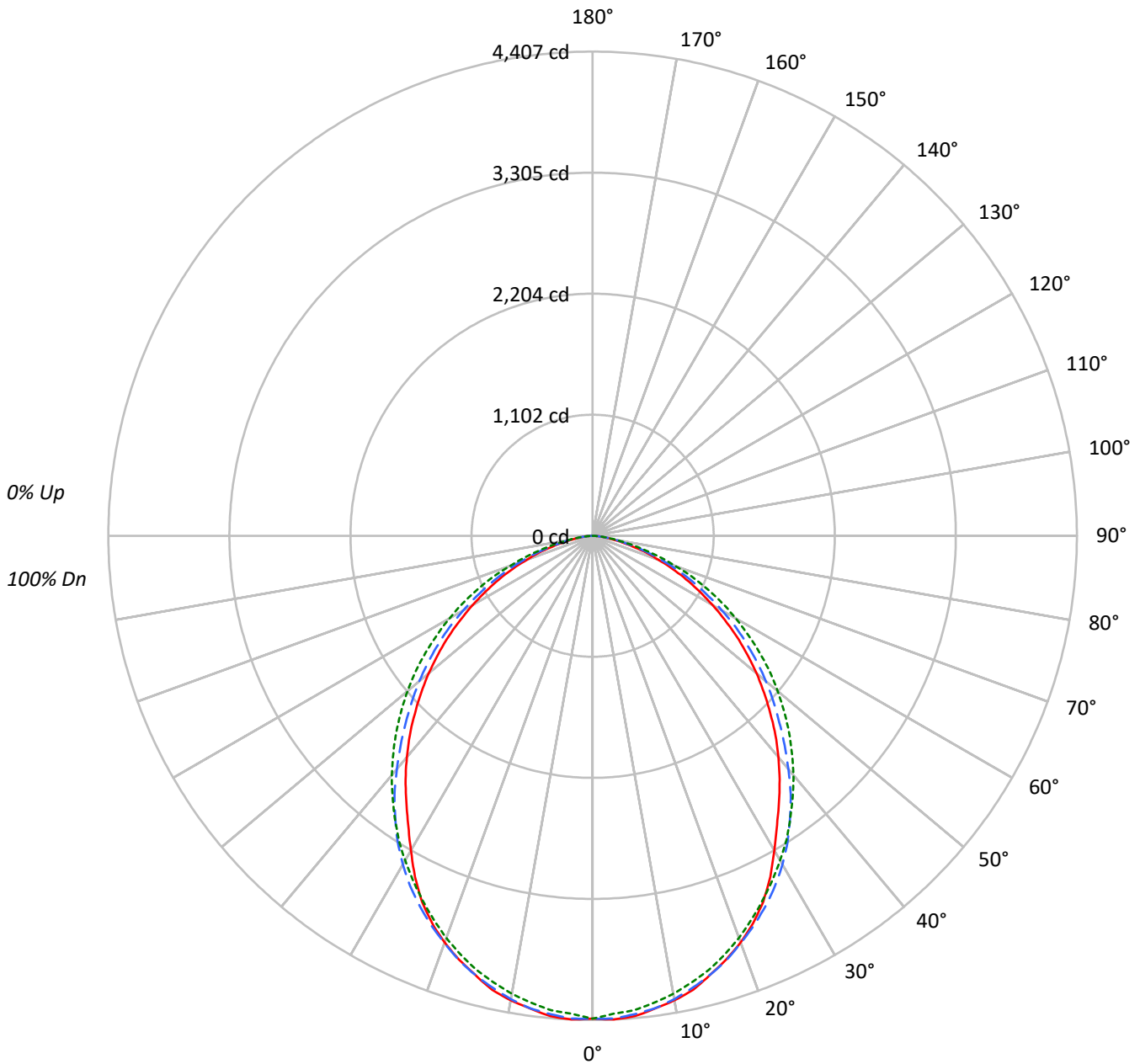
Lumens per Lamp: N/A
Luminaire Lumens: 10163.0 lumens
Efficiency: N/A
Efficacy: 78.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	11827	11827	11827
5°	11859	11809	11708
10°	11733	11701	11567
15°	11525	11525	11393
20°	11281	11295	11150
25°	10909	11045	10869
30°	10273	10735	10604
35°	9707	10290	10306
40°	9235	9734	9989
45°	8707	9144	9613
50°	8151	8617	9204
55°	7518	8017	8706
60°	6771	7316	8097
65°	5978	6505	7365
70°	4982	5540	6257
75°	3915	4424	4898
80°	2800	3113	3454
85°	1825	1825	1720



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	413.8	4.1
10°-20°	1162.5	11.4
20°-30°	1698.9	16.7
30°-40°	1928.4	19.0
40°-50°	1861.6	18.3
50°-60°	1535.7	15.1
60°-70°	1022.6	10.1
70°-80°	457.6	4.5
80°-90°	81.9	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°	3275.2	32.2
0°-40°	5203.6	51.2
0°-60°	8600.9	84.6
0°-90°	10163.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10163.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4395	4395	4395	4395	4395	
5°	4390	4388	4372	4348	4334	416
15°	4137	4147	4137	4118	4090	1166
25°	3674	3703	3720	3693	3661	1683
35°	2955	2995	3132	3149	3137	1851
45°	2288	2327	2403	2512	2526	1765
55°	1602	1629	1709	1803	1856	1430
65°	939	964	1022	1094	1157	931
75°	376	397	426	446	471	412
85°	59	59	59	56	56	80
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4395.2	4395.2	4395.2	4395.2	4395.2
2.5°	4407.1	4408.7	4398.6	4371.6	4354.7
5°	4390.2	4388.5	4371.6	4348.0	4334.4
7.5°	4341.2	4344.6	4339.5	4305.7	4287.2
10°	4293.9	4295.6	4282.1	4255.1	4233.1
12.5°	4233.1	4231.4	4212.9	4199.4	4163.9
15°	4136.9	4147.0	4136.9	4118.3	4089.6
17.5°	4044.0	4044.0	4050.8	4018.7	3996.7
20°	3939.3	3944.4	3944.4	3919.1	3893.7
22.5°	3817.8	3833.0	3838.0	3811.0	3780.6
25°	3674.2	3702.9	3719.8	3692.8	3660.7
27.5°	3500.3	3544.2	3594.9	3574.6	3539.2
30°	3306.1	3370.3	3454.7	3437.8	3412.5
32.5°	3122.1	3186.2	3302.8	3296.0	3282.5
35°	2954.9	2995.4	3132.2	3149.1	3137.3
37.5°	2796.2	2833.3	2961.7	3000.5	2990.4
40°	2629.0	2669.6	2770.9	2840.1	2843.5
42.5°	2463.6	2502.4	2585.1	2684.8	2684.8
45°	2288.0	2326.8	2402.8	2512.5	2526.0
47.5°	2115.7	2156.2	2230.5	2340.3	2362.2
50°	1946.9	1984.0	2058.3	2164.7	2198.5
52.5°	1771.3	1811.8	1884.4	1982.3	2031.3
55°	1602.4	1629.4	1708.8	1803.3	1855.7
57.5°	1426.8	1452.1	1541.6	1622.7	1676.7
60°	1258.0	1290.0	1359.3	1442.0	1504.5
62.5°	1095.9	1129.6	1188.7	1261.3	1332.2
65°	938.8	964.1	1021.6	1094.2	1156.6
67.5°	786.9	808.8	866.2	916.9	982.7
70°	633.2	661.9	704.1	753.1	795.3
72.5°	509.9	521.8	557.2	592.7	636.6
75°	376.5	396.8	425.5	445.8	471.1
77.5°	270.2	282.0	298.9	315.8	339.4
80°	180.7	185.7	200.9	204.3	222.9
82.5°	109.8	113.1	116.5	118.2	125.0
85°	59.1	59.1	59.1	55.7	55.7
87.5°	33.8	33.8	28.7	23.6	16.9
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)