

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: P557824

Luminaire Tested: **FUSL-12-4-LD4-3HI-40-UNV-81-84-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: P557824
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-40-UNV-81-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

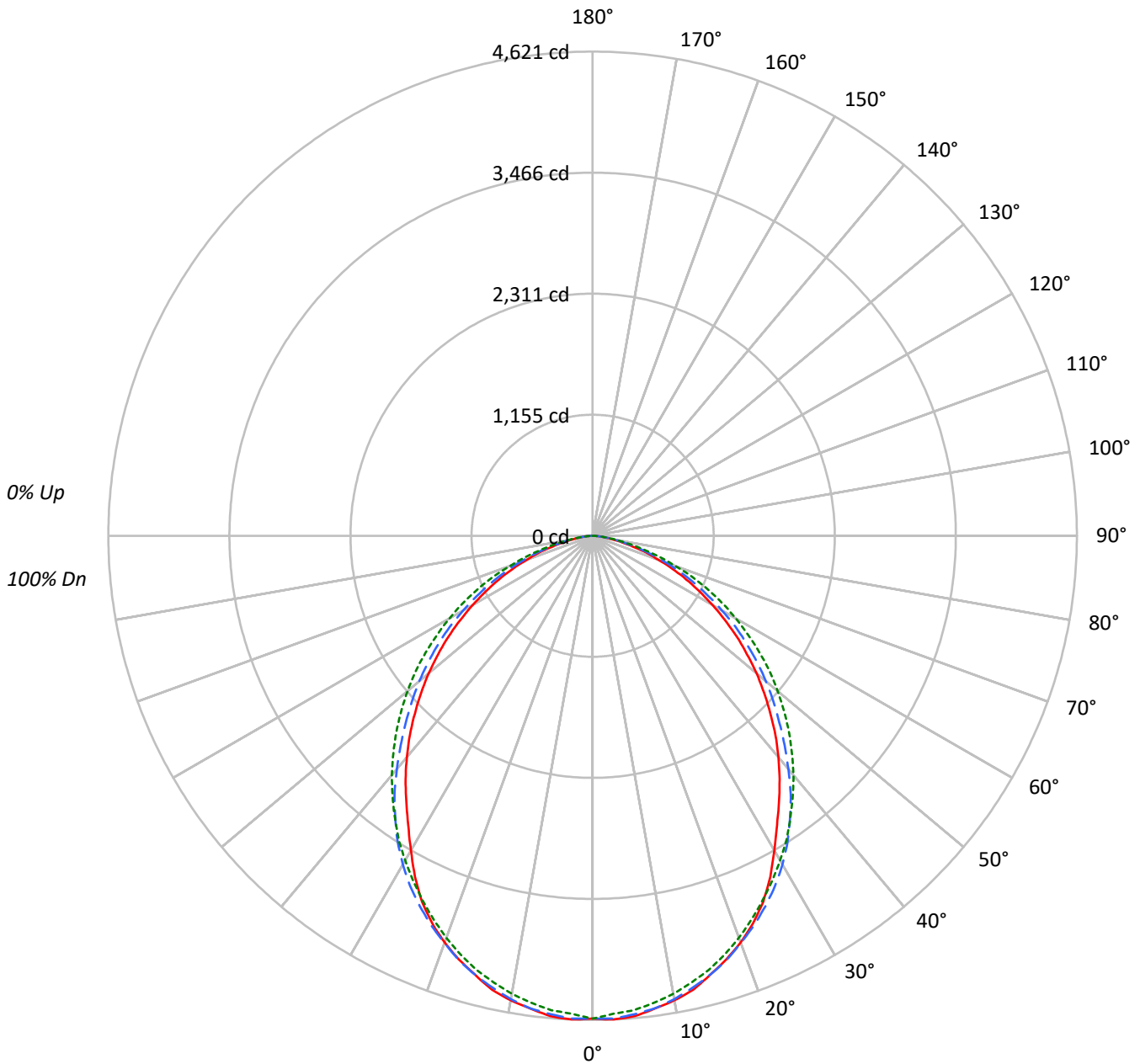
Lumens per Lamp: N/A
Luminaire Lumens: 10656.0 lumens
Efficiency: N/A
Efficacy: 82.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	12401	12401	12401
5°	12434	12382	12276
10°	12302	12268	12128
15°	12084	12084	11946
20°	11828	11843	11691
25°	11439	11581	11397
30°	10771	11255	11118
35°	10178	10789	10806
40°	9683	10206	10473
45°	9129	9587	10080
50°	8546	9035	9650
55°	7882	8406	9128
60°	7099	7670	8490
65°	6268	6820	7722
70°	5223	5809	6561
75°	4105	4638	5136
80°	2935	3265	3622
85°	1914	1914	1803



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	433.9	4.1
10°-20°	1218.9	11.4
20°-30°	1781.3	16.7
30°-40°	2022.0	19.0
40°-50°	1951.9	18.3
50°-60°	1610.2	15.1
60°-70°	1072.2	10.1
70°-80°	479.8	4.5
80°-90°	85.8	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°	3434.1	32.2
0°-40°	5456.1	51.2
0°-60°	9018.1	84.6
0°-90°	10656.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10656.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4608	4608	4608	4608	4608	
5°	4603	4601	4584	4559	4545	436
15°	4338	4348	4338	4318	4288	1223
25°	3852	3883	3900	3872	3838	1764
35°	3098	3141	3284	3302	3290	1941
45°	2399	2440	2519	2634	2649	1851
55°	1680	1708	1792	1891	1946	1500
65°	984	1011	1071	1147	1213	976
75°	395	416	446	467	494	432
85°	62	62	62	58	58	84
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4608.4	4608.4	4608.4	4608.4	4608.4
2.5°	4620.8	4622.6	4612.0	4583.7	4566.0
5°	4603.1	4601.4	4583.7	4558.9	4544.7
7.5°	4551.8	4555.3	4550.0	4514.6	4495.1
10°	4502.2	4504.0	4489.8	4461.5	4438.5
12.5°	4438.5	4436.7	4417.2	4403.1	4365.9
15°	4337.6	4348.2	4337.6	4318.1	4288.0
17.5°	4240.2	4240.2	4247.3	4213.6	4190.6
20°	4130.4	4135.7	4135.7	4109.2	4082.6
22.5°	4003.0	4018.9	4024.2	3995.9	3964.0
25°	3852.5	3882.6	3900.3	3871.9	3838.3
27.5°	3670.1	3716.1	3769.3	3748.0	3710.8
30°	3466.5	3533.8	3622.3	3604.6	3578.1
32.5°	3273.5	3340.8	3463.0	3455.9	3441.7
35°	3098.3	3140.8	3284.2	3301.9	3289.5
37.5°	2931.8	2970.8	3105.3	3146.1	3135.4
40°	2756.6	2799.1	2905.3	2977.9	2981.4
42.5°	2583.1	2623.8	2710.5	2815.0	2815.0
45°	2398.9	2439.7	2519.3	2634.4	2648.6
47.5°	2218.4	2260.8	2338.7	2453.8	2476.8
50°	2041.3	2080.3	2158.2	2269.7	2305.1
52.5°	1857.2	1899.7	1975.8	2078.5	2129.8
55°	1680.1	1708.5	1791.7	1890.8	1945.7
57.5°	1496.0	1522.6	1616.4	1701.4	1758.0
60°	1319.0	1352.6	1425.2	1512.0	1577.5
62.5°	1149.0	1184.4	1246.4	1322.5	1396.9
65°	984.4	1010.9	1071.1	1147.2	1212.7
67.5°	825.0	848.0	908.2	961.3	1030.4
70°	663.9	694.0	738.3	789.6	833.9
72.5°	534.7	547.1	584.2	621.4	667.5
75°	394.8	416.1	446.1	467.4	494.0
77.5°	283.3	295.7	313.4	331.1	355.9
80°	189.4	194.7	210.7	214.2	233.7
82.5°	115.1	118.6	122.2	123.9	131.0
85°	62.0	62.0	62.0	58.4	58.4
87.5°	35.4	35.4	30.1	24.8	17.7
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)