

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: P557826

Luminaire Tested: **FUSL-12-4-LD4-3HI-40-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: P557826
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-81-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

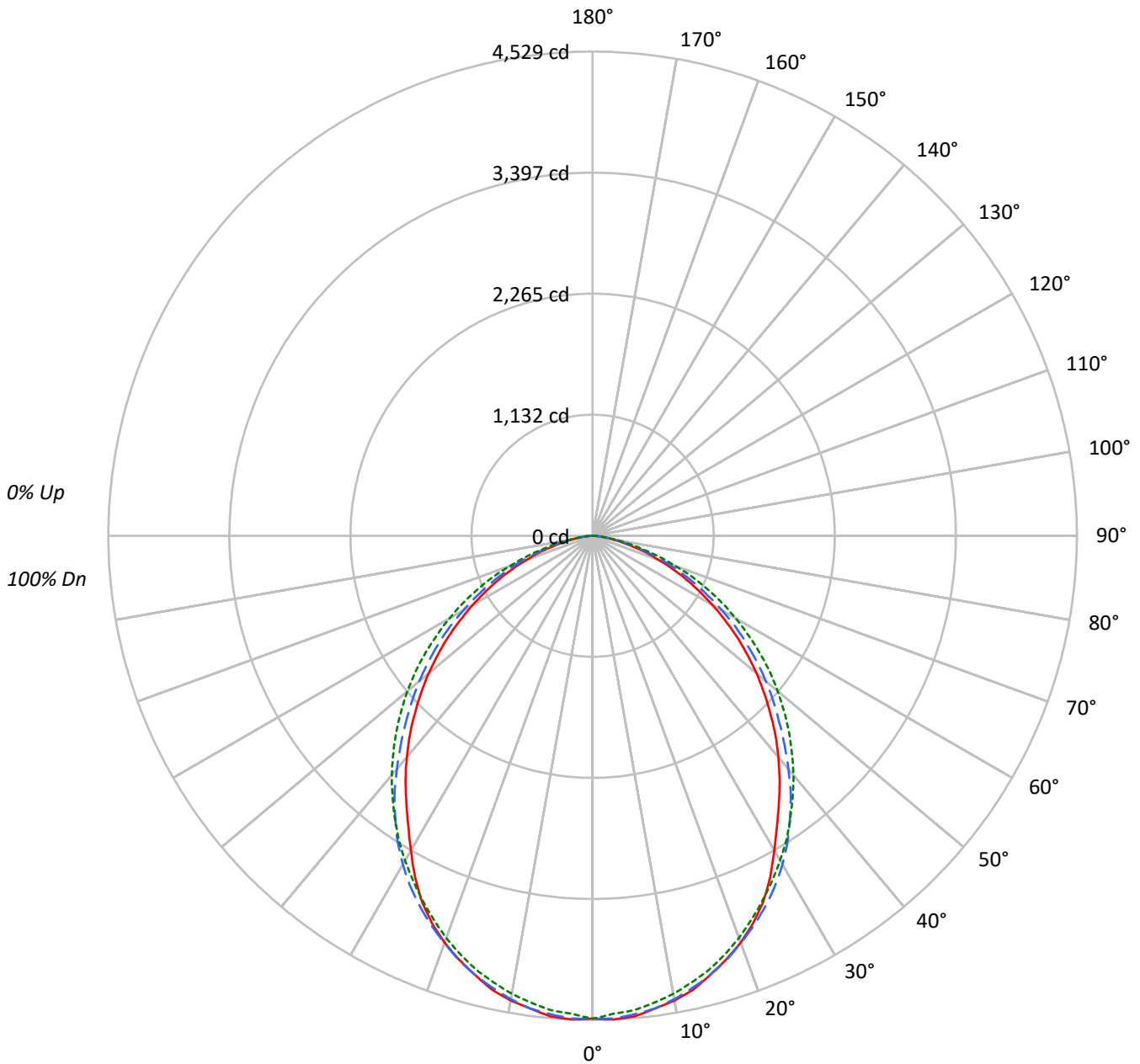
Lumens per Lamp: N/A
Luminaire Lumens: 10445.0 lumens
Efficiency: N/A
Efficacy: 80.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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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CATALOG NUMBER: FUSL-12-4-LD4-3HI-40-UNV-81-85-EDD-90

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°	12156	12156	12156
5°	12188	12136	12033
10°	12059	12025	11888
15°	11845	11845	11709
20°	11594	11609	11460
25°	11212	11351	11171
30°	10558	11033	10898
35°	9976	10575	10592
40°	9492	10004	10266
45°	8949	9398	9880
50°	8377	8856	9459
55°	7727	8239	8948
60°	6958	7519	8322
65°	6144	6685	7569
70°	5120	5694	6431
75°	4024	4547	5034
80°	2878	3200	3550
85°	1874	1874	1769



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	425.3	4.1
10°-20°	1194.8	11.4
20°-30°	1746.0	16.7
30°-40°	1981.9	19.0
40°-50°	1913.2	18.3
50°-60°	1578.3	15.1
60°-70°	1051.0	10.1
70°-80°	470.3	4.5
80°-90°	84.1	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°	3366.1	32.2
0°-40°	5348.0	51.2
0°-60°	8839.5	84.6
0°-90°	10445.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10445.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4517	4517	4517	4517	4517	
5°	4512	4510	4493	4469	4455	427
15°	4252	4262	4252	4233	4203	1199
25°	3776	3806	3823	3795	3762	1729
35°	3037	3079	3219	3236	3224	1903
45°	2351	2391	2469	2582	2596	1814
55°	1647	1675	1756	1853	1907	1470
65°	965	991	1050	1124	1189	957
75°	387	408	437	458	484	423
85°	61	61	61	57	57	82
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4517.2	4517.2	4517.2	4517.2	4517.2
2.5°	4529.3	4531.1	4520.7	4492.9	4475.5
5°	4512.0	4510.3	4492.9	4468.6	4454.7
7.5°	4461.7	4465.1	4459.9	4425.2	4406.1
10°	4413.1	4414.8	4400.9	4373.2	4350.6
12.5°	4350.6	4348.9	4329.8	4315.9	4279.4
15°	4251.7	4262.1	4251.7	4232.6	4203.1
17.5°	4156.2	4156.2	4163.2	4130.2	4107.6
20°	4048.6	4053.8	4053.8	4027.8	4001.8
22.5°	3923.7	3939.3	3944.5	3916.8	3885.5
25°	3776.2	3805.7	3823.0	3795.3	3762.3
27.5°	3597.4	3642.6	3694.6	3673.8	3637.4
30°	3397.9	3463.8	3550.6	3533.2	3507.2
32.5°	3208.7	3274.7	3394.4	3387.5	3373.6
35°	3036.9	3078.6	3219.1	3236.5	3224.3
37.5°	2873.8	2912.0	3043.9	3083.8	3073.4
40°	2702.0	2743.6	2847.8	2918.9	2922.4
42.5°	2531.9	2571.8	2656.9	2759.3	2759.3
45°	2351.4	2391.4	2469.4	2582.2	2596.1
47.5°	2174.4	2216.1	2292.4	2405.2	2427.8
50°	2000.9	2039.1	2115.4	2224.8	2259.5
52.5°	1820.4	1862.1	1936.7	2037.3	2087.7
55°	1646.9	1674.6	1756.2	1853.4	1907.2
57.5°	1466.4	1492.4	1584.4	1667.7	1723.2
60°	1292.9	1325.8	1397.0	1482.0	1546.2
62.5°	1126.3	1161.0	1221.7	1296.3	1369.2
65°	964.9	990.9	1049.9	1124.5	1188.7
67.5°	808.7	831.2	890.2	942.3	1010.0
70°	650.8	680.3	723.7	774.0	817.4
72.5°	524.1	536.2	572.7	609.1	654.2
75°	387.0	407.8	437.3	458.1	484.2
77.5°	277.7	289.8	307.2	324.5	348.8
80°	185.7	190.9	206.5	210.0	229.1
82.5°	112.8	116.3	119.7	121.5	128.4
85°	60.7	60.7	60.7	57.3	57.3
87.5°	34.7	34.7	29.5	24.3	17.4
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)