

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: P557716

Luminaire Tested: **FUSL-12-4-LD4-3HI-30-UNV-82-86-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: P557716
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-82-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

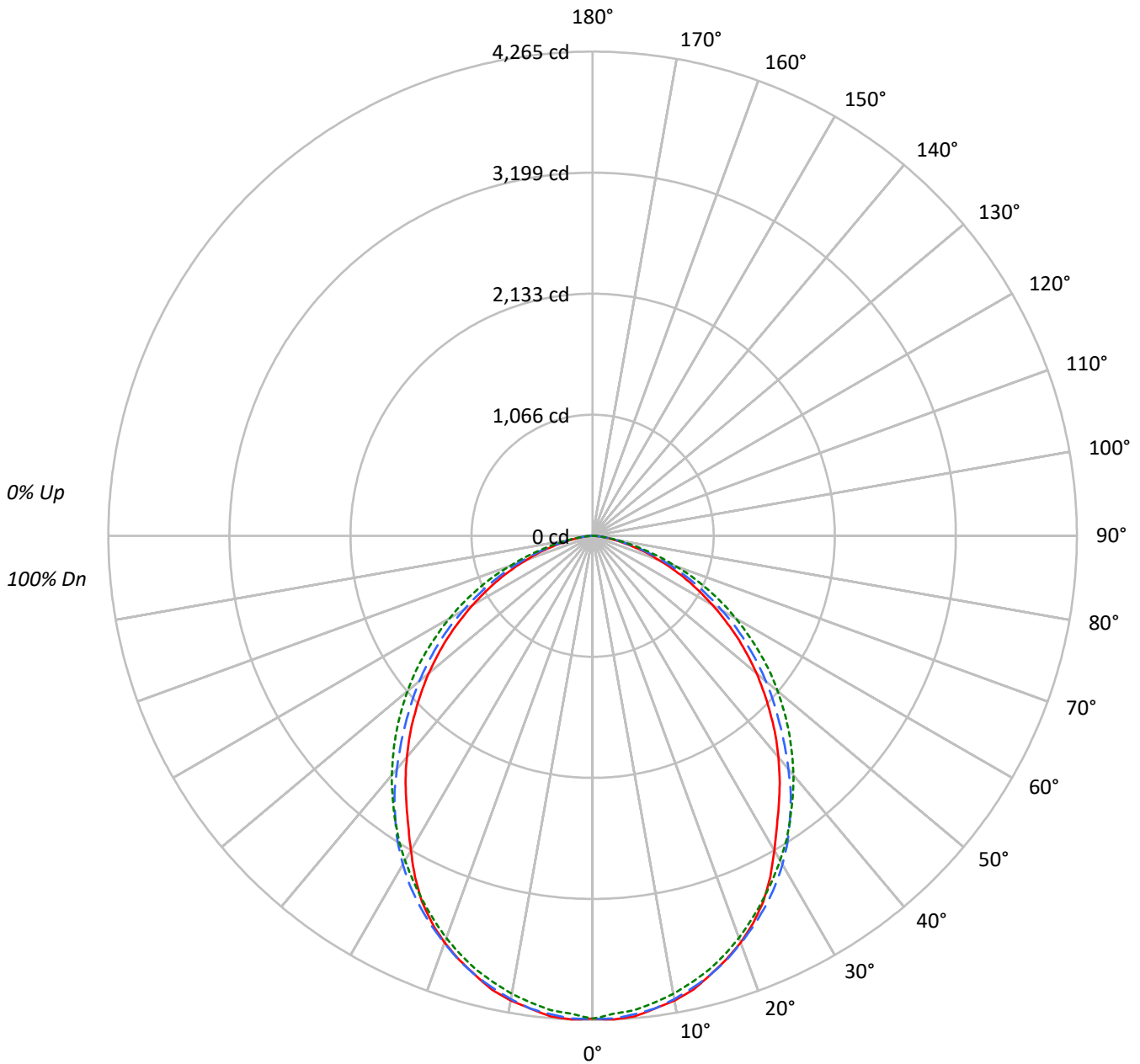
Lumens per Lamp: N/A
Luminaire Lumens: 9836.0 lumens
Efficiency: N/A
Efficacy: 75.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	11447	11447	11447
5°	11477	11429	11332
10°	11356	11324	11195
15°	11154	11154	11027
20°	10918	10932	10792
25°	10558	10689	10519
30°	9943	10389	10262
35°	9395	9958	9974
40°	8938	9420	9667
45°	8427	8850	9304
50°	7888	8340	8907
55°	7276	7759	8426
60°	6553	7080	7837
65°	5785	6295	7128
70°	4821	5362	6056
75°	3789	4282	4740
80°	2710	3014	3343
85°	1766	1766	1664



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	400.5	4.1
10°-20°	1125.1	11.4
20°-30°	1644.2	16.7
30°-40°	1866.4	19.0
40°-50°	1801.7	18.3
50°-60°	1486.3	15.1
60°-70°	989.7	10.1
70°-80°	442.9	4.5
80°-90°	79.2	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°	3169.9	32.2
0°-40°	5036.2	51.2
0°-60°	8324.2	84.6
0°-90°	9836.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9836.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4254	4254	4254	4254	4254	
5°	4249	4247	4231	4208	4195	402
15°	4004	4014	4004	3986	3958	1129
25°	3556	3584	3600	3574	3543	1628
35°	2860	2899	3031	3048	3036	1792
45°	2214	2252	2326	2432	2445	1708
55°	1551	1577	1654	1745	1796	1384
65°	909	933	989	1059	1119	901
75°	364	384	412	431	456	398
85°	57	57	57	54	54	77
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4253.8	4253.8	4253.8	4253.8	4253.8
2.5°	4265.3	4266.9	4257.1	4230.9	4214.6
5°	4248.9	4247.3	4230.9	4208.1	4195.0
7.5°	4201.5	4204.8	4199.9	4167.2	4149.2
10°	4155.8	4157.4	4144.3	4118.2	4096.9
12.5°	4096.9	4095.3	4077.3	4064.2	4029.9
15°	4003.8	4013.6	4003.8	3985.8	3958.0
17.5°	3913.9	3913.9	3920.4	3889.4	3868.1
20°	3812.6	3817.5	3817.5	3793.0	3768.5
22.5°	3694.9	3709.6	3714.5	3688.4	3659.0
25°	3556.0	3583.8	3600.1	3574.0	3542.9
27.5°	3387.7	3430.2	3479.2	3459.6	3425.3
30°	3199.8	3261.9	3343.6	3327.2	3302.7
32.5°	3021.6	3083.7	3196.5	3190.0	3176.9
35°	2859.8	2899.1	3031.4	3047.8	3036.3
37.5°	2706.2	2742.2	2866.4	2904.0	2894.2
40°	2544.4	2583.7	2681.7	2748.7	2752.0
42.5°	2384.3	2421.9	2502.0	2598.4	2598.4
45°	2214.3	2251.9	2325.5	2431.7	2444.8
47.5°	2047.6	2086.9	2158.8	2265.0	2286.2
50°	1884.2	1920.2	1992.1	2095.0	2127.7
52.5°	1714.3	1753.5	1823.8	1918.5	1965.9
55°	1550.9	1577.0	1653.8	1745.3	1796.0
57.5°	1380.9	1405.4	1492.0	1570.5	1622.8
60°	1217.5	1248.5	1315.5	1395.6	1456.1
62.5°	1060.6	1093.3	1150.5	1220.7	1289.4
65°	908.6	933.1	988.7	1059.0	1119.4
67.5°	761.5	782.8	838.3	887.4	951.1
70°	612.8	640.6	681.5	728.9	769.7
72.5°	493.5	505.0	539.3	573.6	616.1
75°	364.4	384.0	411.8	431.4	455.9
77.5°	261.5	272.9	289.3	305.6	328.5
80°	174.9	179.8	194.5	197.7	215.7
82.5°	106.2	109.5	112.8	114.4	120.9
85°	57.2	57.2	57.2	53.9	53.9
87.5°	32.7	32.7	27.8	22.9	16.3
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)