

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: P557151

Luminaire Tested: **FUSL-12-4-LD4-2HI-50-UNV-82-97-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: P557151
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-LD4-2HI-50-UNV-82-97-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

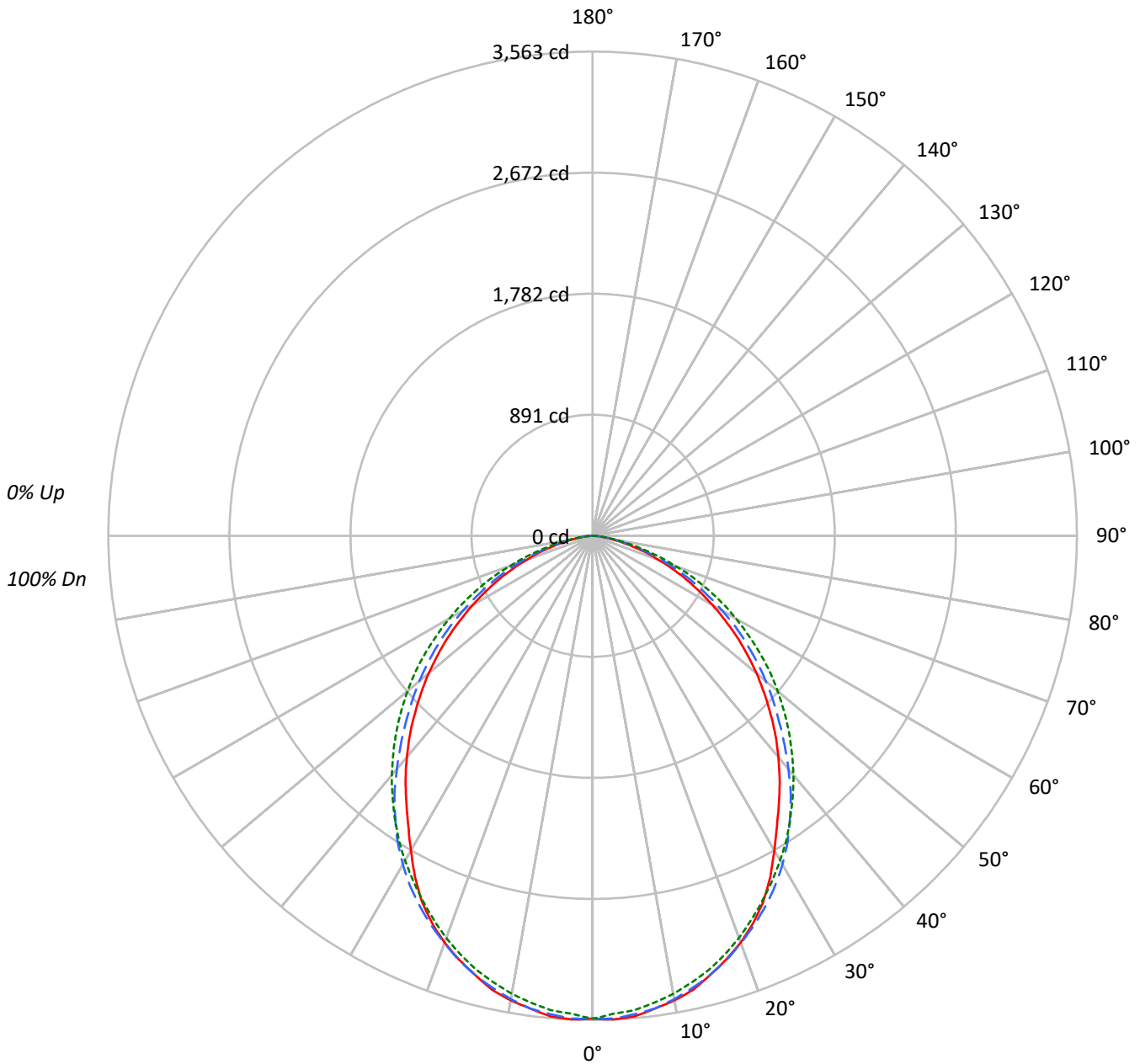
Lumens per Lamp: N/A
Luminaire Lumens: 8217.0 lumens
Efficiency: N/A
Efficacy: 95.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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°	9563	9563	9563
5°	9588	9548	9467
10°	9486	9460	9352
15°	9318	9318	9212
20°	9121	9133	9015
25°	8821	8930	8788
30°	8306	8679	8573
35°	7848	8319	8333
40°	7467	7870	8076
45°	7040	7393	7773
50°	6590	6967	7441
55°	6078	6482	7039
60°	5474	5915	6547
65°	4833	5259	5955
70°	4028	4479	5059
75°	3165	3577	3960
80°	2264	2518	2793
85°	1476	1476	1392



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	334.6	4.1
10°-20°	939.9	11.4
20°-30°	1373.6	16.7
30°-40°	1559.2	19.0
40°-50°	1505.1	18.3
50°-60°	1241.6	15.1
60°-70°	826.8	10.1
70°-80°	370.0	4.5
80°-90°	66.2	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°	2648.1	32.2
0°-40°	4207.3	51.2
0°-60°	6954.0	84.6
0°-90°	8217.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8217.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3554	3554	3554	3554	3554	
5°	3550	3548	3534	3515	3504	336
15°	3345	3353	3345	3330	3306	943
25°	2971	2994	3008	2986	2960	1360
35°	2389	2422	2532	2546	2537	1497
45°	1850	1881	1943	2031	2042	1427
55°	1296	1317	1382	1458	1500	1156
65°	759	780	826	885	935	753
75°	304	321	344	360	381	333
85°	48	48	48	45	45	64
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3553.6	3553.6	3553.6	3553.6	3553.6
2.5°	3563.2	3564.6	3556.4	3534.5	3520.9
5°	3549.5	3548.2	3534.5	3515.4	3504.5
7.5°	3510.0	3512.7	3508.6	3481.3	3466.3
10°	3471.7	3473.1	3462.2	3440.3	3422.6
12.5°	3422.6	3421.2	3406.2	3395.3	3366.6
15°	3344.8	3353.0	3344.8	3329.7	3306.5
17.5°	3269.7	3269.7	3275.1	3249.2	3231.5
20°	3185.0	3189.1	3189.1	3168.7	3148.2
22.5°	3086.7	3099.0	3103.1	3081.3	3056.7
25°	2970.7	2993.9	3007.6	2985.7	2959.8
27.5°	2830.1	2865.6	2906.5	2890.1	2861.5
30°	2673.1	2725.0	2793.2	2779.6	2759.1
32.5°	2524.3	2576.2	2670.3	2664.9	2654.0
35°	2389.1	2421.9	2532.5	2546.1	2536.6
37.5°	2260.8	2290.8	2394.6	2426.0	2417.8
40°	2125.6	2158.4	2240.3	2296.3	2299.0
42.5°	1991.8	2023.2	2090.1	2170.7	2170.7
45°	1849.9	1881.3	1942.7	2031.4	2042.4
47.5°	1710.6	1743.4	1803.4	1892.2	1909.9
50°	1574.1	1604.1	1664.2	1750.2	1777.5
52.5°	1432.1	1464.9	1523.6	1602.8	1642.3
55°	1295.6	1317.4	1381.6	1458.0	1500.4
57.5°	1153.6	1174.1	1246.4	1312.0	1355.7
60°	1017.1	1043.0	1099.0	1165.9	1216.4
62.5°	886.0	913.3	961.1	1019.8	1077.2
65°	759.1	779.5	826.0	884.7	935.2
67.5°	636.2	653.9	700.4	741.3	794.6
70°	512.0	535.2	569.3	608.9	643.0
72.5°	412.3	421.8	450.5	479.2	514.7
75°	304.4	320.8	344.0	360.4	380.9
77.5°	218.4	228.0	241.6	255.3	274.4
80°	146.1	150.2	162.5	165.2	180.2
82.5°	88.7	91.5	94.2	95.6	101.0
85°	47.8	47.8	47.8	45.1	45.1
87.5°	27.3	27.3	23.2	19.1	13.7
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)