

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: P558406

Luminaire Tested: **FUSL-12-4-LD4-3STD-50-UNV-81-87-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: P558406
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-LD4-3STD-50-UNV-81-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

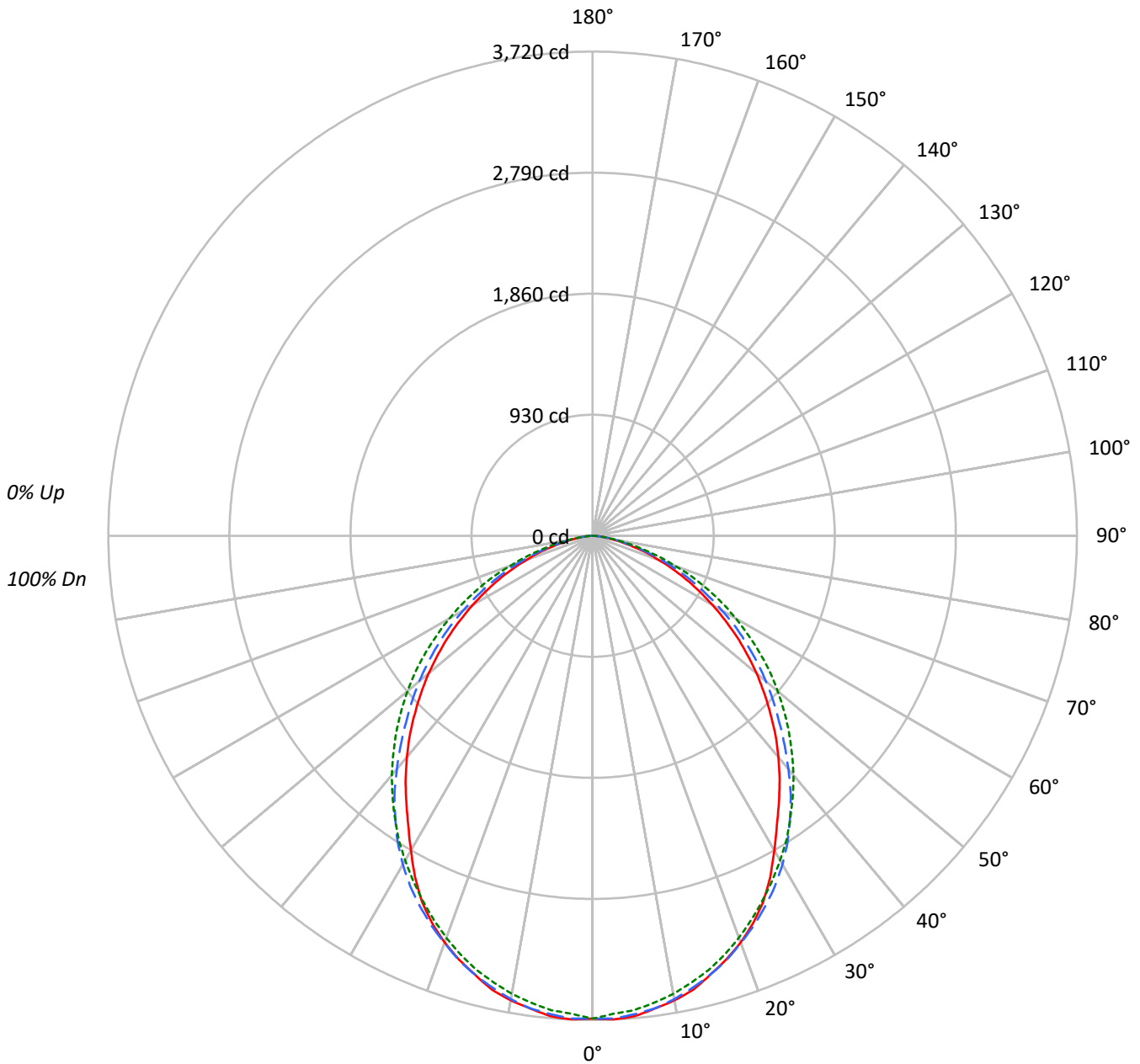
Lumens per Lamp: N/A
Luminaire Lumens: 8578.0 lumens
Efficiency: N/A
Efficacy: 85.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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°	9983	9983	9983
5°	10010	9967	9883
10°	9903	9876	9763
15°	9728	9728	9616
20°	9522	9534	9411
25°	9208	9322	9174
30°	8671	9061	8950
35°	8193	8685	8699
40°	7795	8215	8431
45°	7349	7718	8114
50°	6879	7273	7768
55°	6345	6767	7348
60°	5715	6175	6834
65°	5046	5490	6216
70°	4205	4676	5282
75°	3304	3734	4134
80°	2363	2628	2915
85°	1541	1541	1451



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	349.3	4.1
10°-20°	981.2	11.4
20°-30°	1433.9	16.7
30°-40°	1627.7	19.0
40°-50°	1571.2	18.3
50°-60°	1296.2	15.1
60°-70°	863.1	10.1
70°-80°	386.2	4.5
80°-90°	69.1	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°	2764.4	32.2
0°-40°	4392.1	51.2
0°-60°	7259.5	84.6
0°-90°	8578.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8578.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3710	3710	3710	3710	3710	
5°	3706	3704	3690	3670	3658	351
15°	3492	3500	3492	3476	3452	984
25°	3101	3125	3140	3117	3090	1420
35°	2494	2528	2644	2658	2648	1563
45°	1931	1964	2028	2121	2132	1490
55°	1352	1375	1442	1522	1566	1207
65°	792	814	862	924	976	786
75°	318	335	359	376	398	347
85°	50	50	50	47	47	67
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3709.8	3709.8	3709.8	3709.8	3709.8
2.5°	3719.7	3721.2	3712.6	3689.8	3675.6
5°	3705.5	3704.1	3689.8	3669.9	3658.5
7.5°	3664.2	3667.0	3662.7	3634.2	3618.6
10°	3624.3	3625.7	3614.3	3591.5	3572.9
12.5°	3572.9	3571.5	3555.8	3544.4	3514.5
15°	3491.7	3500.3	3491.7	3476.0	3451.8
17.5°	3413.3	3413.3	3419.0	3391.9	3373.4
20°	3325.0	3329.2	3329.2	3307.9	3286.5
22.5°	3222.3	3235.2	3239.5	3216.6	3191.0
25°	3101.2	3125.4	3139.7	3116.9	3089.8
27.5°	2954.4	2991.5	3034.2	3017.1	2987.2
30°	2790.5	2844.7	2915.9	2901.7	2880.3
32.5°	2635.2	2689.3	2787.7	2782.0	2770.6
35°	2494.1	2528.3	2643.7	2658.0	2648.0
37.5°	2360.1	2391.5	2499.8	2532.6	2524.0
40°	2219.0	2253.2	2338.7	2397.2	2400.0
42.5°	2079.3	2112.1	2182.0	2266.0	2266.0
45°	1931.1	1963.9	2028.0	2120.7	2132.1
47.5°	1785.8	1820.0	1882.7	1975.3	1993.8
50°	1643.2	1674.6	1737.3	1827.1	1855.6
52.5°	1495.0	1529.2	1590.5	1673.2	1714.5
55°	1352.5	1375.3	1442.3	1522.1	1566.3
57.5°	1204.3	1225.7	1301.2	1369.6	1415.2
60°	1061.8	1088.8	1147.3	1217.1	1269.8
62.5°	924.9	953.5	1003.3	1064.6	1124.5
65°	792.4	813.8	862.2	923.5	976.3
67.5°	664.1	682.7	731.1	773.9	829.5
70°	534.4	558.7	594.3	635.6	671.3
72.5°	430.4	440.4	470.3	500.2	537.3
75°	317.8	334.9	359.1	376.2	397.6
77.5°	228.0	238.0	252.3	266.5	286.5
80°	152.5	156.8	169.6	172.4	188.1
82.5°	92.6	95.5	98.3	99.8	105.5
85°	49.9	49.9	49.9	47.0	47.0
87.5°	28.5	28.5	24.2	20.0	14.3
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)