

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: P557023

Luminaire Tested: **FUSL-12-4-LD4-2HI-35-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: P557023
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-35-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 3500K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

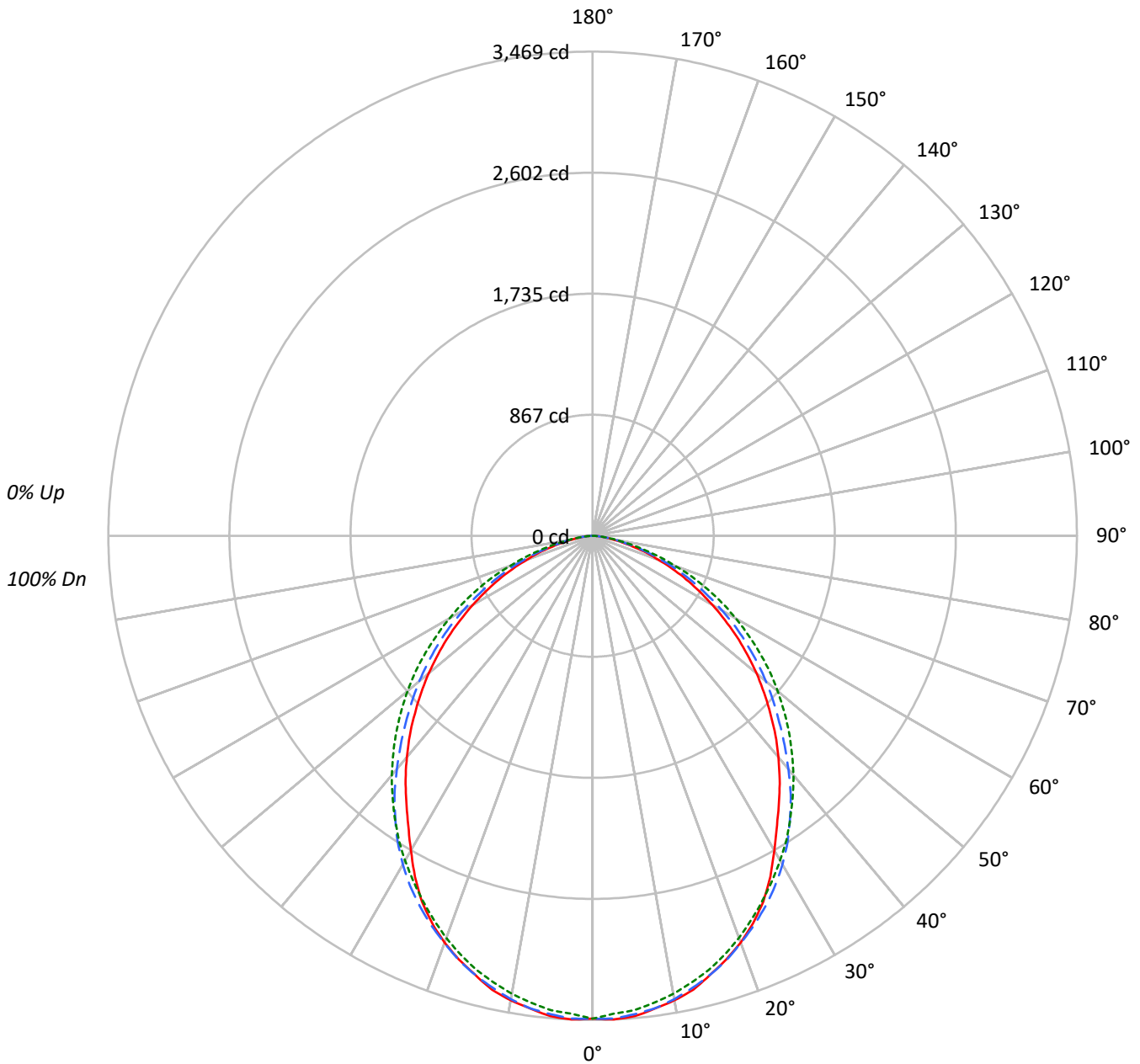
Lumens per Lamp: N/A
Luminaire Lumens: 8000.0 lumens
Efficiency: N/A
Efficacy: 92.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	9310	9310	9310
5°	9335	9296	9216
10°	9236	9210	9105
15°	9072	9072	8968
20°	8880	8891	8777
25°	8587	8694	8556
30°	8087	8450	8347
35°	7641	8100	8113
40°	7270	7662	7863
45°	6854	7198	7567
50°	6416	6783	7245
55°	5918	6311	6853
60°	5329	5759	6374
65°	4706	5120	5798
70°	3921	4361	4925
75°	3082	3482	3855
80°	2204	2452	2718
85°	1436	1436	1355



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	325.7	4.1
10°-20°	915.1	11.4
20°-30°	1337.3	16.7
30°-40°	1518.0	19.0
40°-50°	1465.4	18.3
50°-60°	1208.8	15.1
60°-70°	805.0	10.1
70°-80°	360.2	4.5
80°-90°	64.4	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°	2578.2	32.2
0°-40°	4096.1	51.2
0°-60°	6770.3	84.6
0°-90°	8000.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8000.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3460	3460	3460	3460	3460	
5°	3456	3454	3441	3423	3412	327
15°	3256	3264	3256	3242	3219	918
25°	2892	2915	2928	2907	2882	1324
35°	2326	2358	2466	2479	2470	1457
45°	1801	1832	1891	1978	1988	1390
55°	1261	1283	1345	1420	1461	1126
65°	739	759	804	861	910	733
75°	296	312	335	351	371	324
85°	46	46	46	44	44	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3459.8	3459.8	3459.8	3459.8	3459.8
2.5°	3469.1	3470.4	3462.5	3441.2	3427.9
5°	3455.8	3454.5	3441.2	3422.6	3411.9
7.5°	3417.3	3419.9	3415.9	3389.3	3374.7
10°	3380.0	3381.4	3370.7	3349.5	3332.2
12.5°	3332.2	3330.9	3316.2	3305.6	3277.7
15°	3256.4	3264.4	3256.4	3241.8	3219.2
17.5°	3183.3	3183.3	3188.6	3163.4	3146.1
20°	3100.9	3104.9	3104.9	3085.0	3065.0
22.5°	3005.2	3017.2	3021.2	2999.9	2976.0
25°	2892.2	2914.8	2928.1	2906.9	2881.6
27.5°	2755.3	2789.9	2829.8	2813.8	2785.9
30°	2602.5	2653.0	2719.5	2706.2	2686.2
32.5°	2457.6	2508.1	2599.8	2594.5	2583.9
35°	2326.0	2357.9	2465.6	2478.9	2469.6
37.5°	2201.1	2230.3	2331.3	2361.9	2353.9
40°	2069.5	2101.4	2181.1	2235.6	2238.3
42.5°	1939.2	1969.8	2034.9	2113.4	2113.4
45°	1801.0	1831.6	1891.4	1977.8	1988.4
47.5°	1665.4	1697.3	1755.8	1842.2	1859.5
50°	1532.5	1561.8	1620.2	1704.0	1730.6
52.5°	1394.3	1426.2	1483.3	1560.4	1599.0
55°	1261.4	1282.6	1345.1	1419.5	1460.7
57.5°	1123.1	1143.1	1213.5	1277.3	1319.9
60°	990.2	1015.5	1070.0	1135.1	1184.3
62.5°	862.6	889.2	935.7	992.9	1048.7
65°	739.0	758.9	804.1	861.3	910.5
67.5°	619.4	636.7	681.9	721.7	773.6
70°	498.4	521.0	554.3	592.8	626.0
72.5°	401.4	410.7	438.6	466.5	501.1
75°	296.4	312.4	334.9	350.9	370.8
77.5°	212.7	222.0	235.3	248.6	267.2
80°	142.2	146.2	158.2	160.8	175.4
82.5°	86.4	89.1	91.7	93.0	98.4
85°	46.5	46.5	46.5	43.9	43.9
87.5°	26.6	26.6	22.6	18.6	13.3
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)