

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: P557449

Luminaire Tested: **FUSL-12-4-LD4-2STD-30-UNV-81-88-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: P557449
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-LD4-2STD-30-UNV-81-88-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

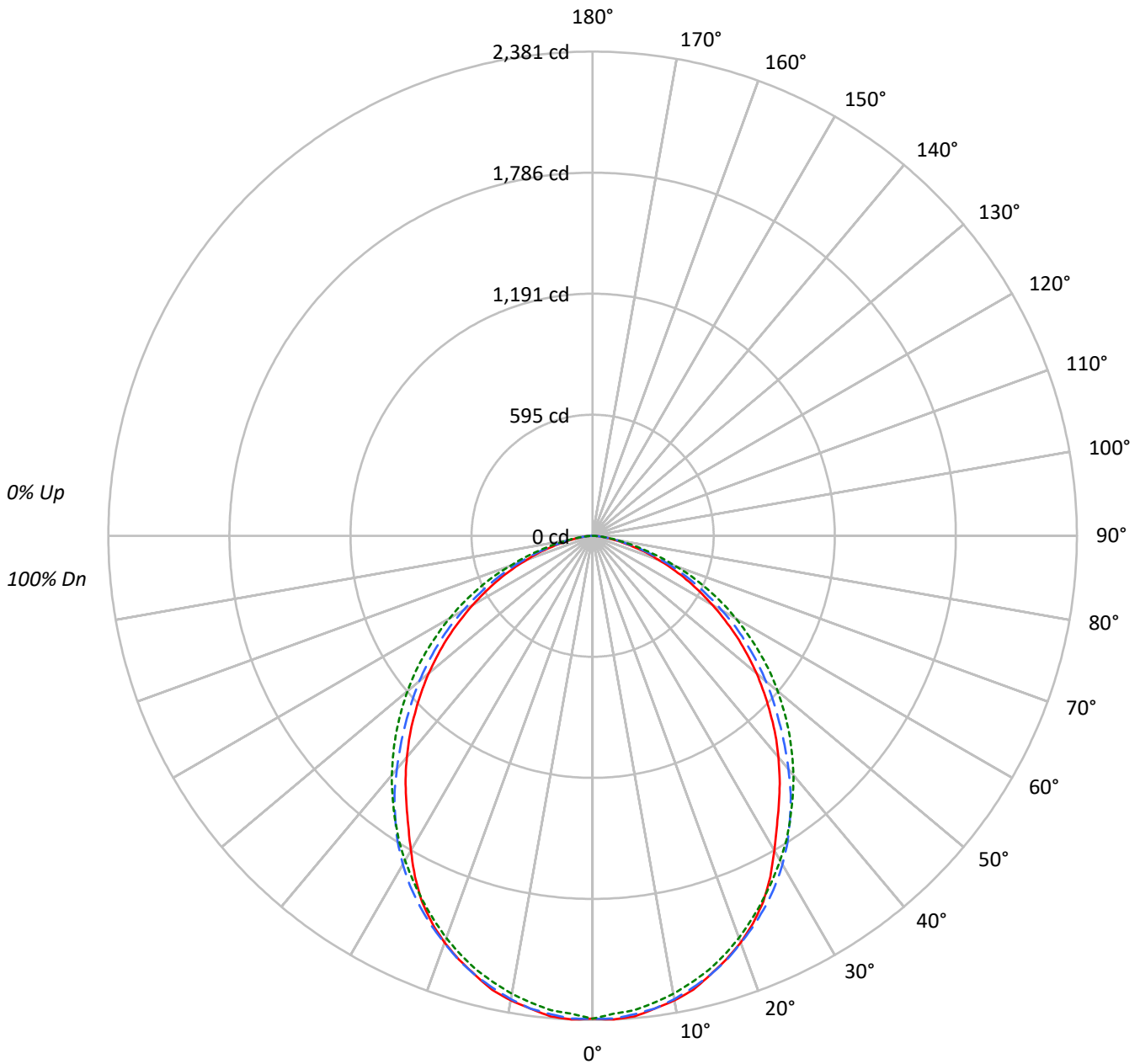
Lumens per Lamp: N/A
Luminaire Lumens: 5491.0 lumens
Efficiency: N/A
Efficacy: 82.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	6390	6390	6390
5°	6407	6380	6326
10°	6339	6322	6249
15°	6227	6227	6156
20°	6095	6103	6025
25°	5894	5967	5873
30°	5551	5800	5729
35°	5245	5559	5569
40°	4990	5259	5397
45°	4705	4940	5194
50°	4404	4656	4973
55°	4062	4331	4704
60°	3658	3953	4375
65°	3230	3514	3979
70°	2692	2993	3381
75°	2115	2390	2646
80°	1512	1683	1866
85°	985	985	929



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	223.6	4.1
10°-20°	628.1	11.4
20°-30°	917.9	16.7
30°-40°	1041.9	19.0
40°-50°	1005.8	18.3
50°-60°	829.7	15.1
60°-70°	552.5	10.1
70°-80°	247.2	4.5
80°-90°	44.2	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°	1769.6	32.2
0°-40°	2811.5	51.2
0°-60°	4647.0	84.6
0°-90°	5491.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5491.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2375	2375	2375	2375	2375	
5°	2372	2371	2362	2349	2342	225
15°	2235	2241	2235	2225	2210	630
25°	1985	2001	2010	1995	1978	909
35°	1596	1618	1692	1701	1695	1000
45°	1236	1257	1298	1358	1365	954
55°	866	880	923	974	1003	773
65°	507	521	552	591	625	503
75°	203	214	230	241	254	222
85°	32	32	32	30	30	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2374.7	2374.7	2374.7	2374.7	2374.7
2.5°	2381.1	2382.0	2376.5	2361.9	2352.8
5°	2372.0	2371.1	2361.9	2349.2	2341.9
7.5°	2345.5	2347.3	2344.6	2326.4	2316.3
10°	2320.0	2320.9	2313.6	2299.0	2287.1
12.5°	2287.1	2286.2	2276.2	2268.9	2249.7
15°	2235.1	2240.6	2235.1	2225.1	2209.6
17.5°	2185.0	2185.0	2188.6	2171.3	2159.4
20°	2128.4	2131.1	2131.1	2117.4	2103.8
22.5°	2062.7	2070.9	2073.7	2059.1	2042.6
25°	1985.2	2000.7	2009.8	1995.2	1977.9
27.5°	1891.2	1914.9	1942.3	1931.3	1912.2
30°	1786.3	1820.9	1866.6	1857.4	1843.8
32.5°	1686.8	1721.5	1784.5	1780.8	1773.5
35°	1596.5	1618.4	1692.3	1701.4	1695.1
37.5°	1510.8	1530.8	1600.2	1621.2	1615.7
40°	1420.5	1442.3	1497.1	1534.5	1536.3
42.5°	1331.0	1352.0	1396.7	1450.6	1450.6
45°	1236.2	1257.1	1298.2	1357.5	1364.8
47.5°	1143.1	1165.0	1205.1	1264.4	1276.3
50°	1051.9	1072.0	1112.1	1169.6	1187.8
52.5°	957.0	978.9	1018.1	1071.0	1097.5
55°	865.8	880.4	923.2	974.3	1002.6
57.5°	770.9	784.6	832.9	876.7	905.9
60°	679.7	697.0	734.4	779.1	812.9
62.5°	592.1	610.3	642.3	681.5	719.8
65°	507.2	520.9	551.9	591.2	624.9
67.5°	425.1	437.0	468.0	495.4	531.0
70°	342.1	357.6	380.4	406.9	429.7
72.5°	275.5	281.9	301.1	320.2	343.9
75°	203.4	214.4	229.9	240.8	254.5
77.5°	146.0	152.4	161.5	170.6	183.4
80°	97.6	100.4	108.6	110.4	120.4
82.5°	59.3	61.1	62.9	63.9	67.5
85°	31.9	31.9	31.9	30.1	30.1
87.5°	18.2	18.2	15.5	12.8	9.1
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)