

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: P557464

Luminaire Tested: **FUSL-12-4-LD4-2STD-30-UNV-82-88-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: P557464
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-82-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

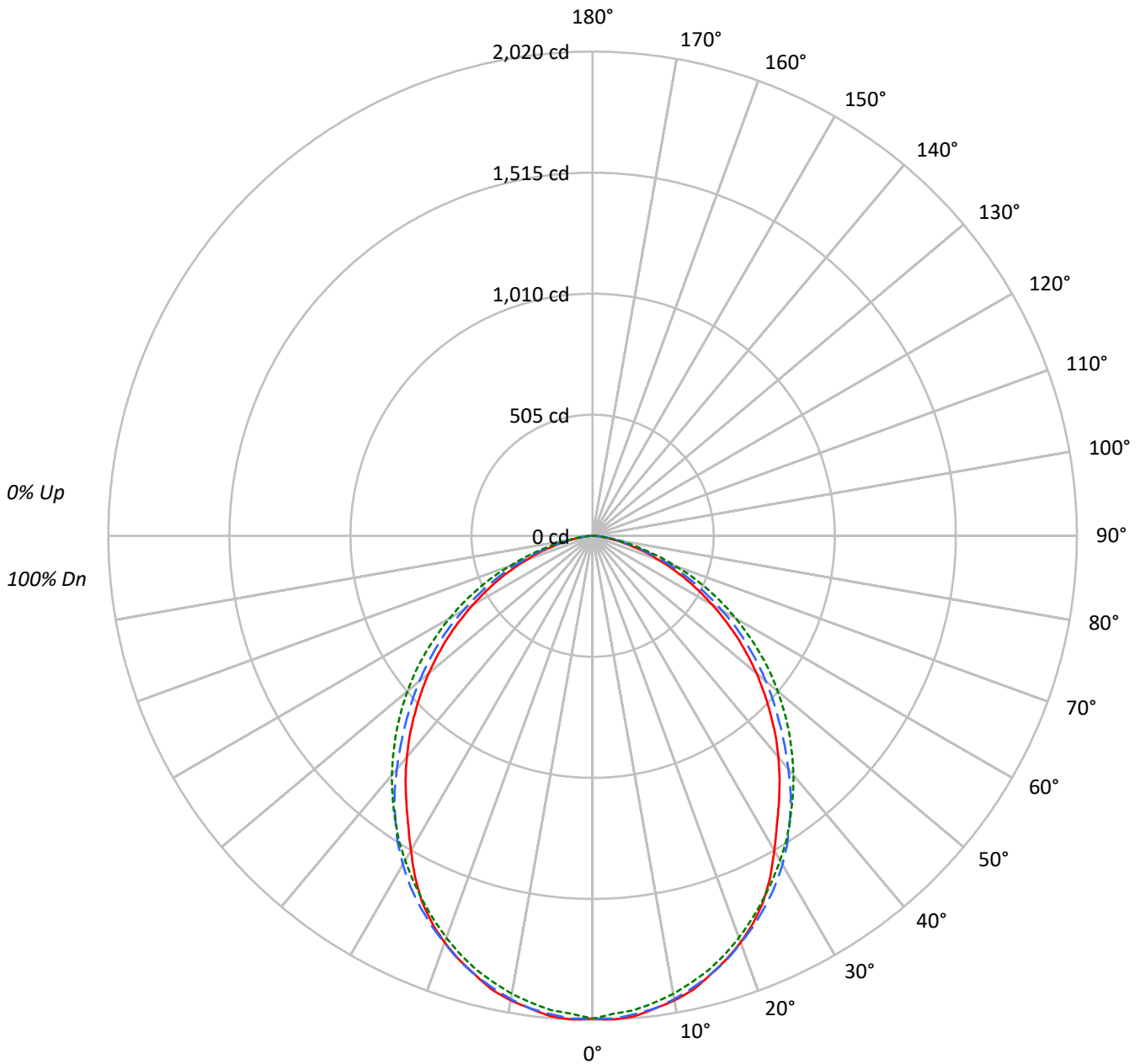
Lumens per Lamp: N/A
Luminaire Lumens: 4658.0 lumens
Efficiency: N/A
Efficacy: 69.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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					20					
RC	80					70					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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86					86			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73					73			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63					63			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54					54			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42					42			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34					34			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30					30			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28					28			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5421	5421	5421
5°	5435	5412	5366
10°	5378	5363	5302
15°	5282	5282	5222
20°	5170	5177	5111
25°	5000	5062	4982
30°	4708	4920	4860
35°	4449	4716	4724
40°	4233	4461	4578
45°	3991	4191	4406
50°	3736	3949	4218
55°	3445	3674	3990
60°	3103	3353	3711
65°	2740	2981	3375
70°	2283	2539	2868
75°	1795	2027	2245
80°	1283	1427	1584
85°	837	837	787



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	189.7	4.1
10°-20°	532.8	11.4
20°-30°	778.6	16.7
30°-40°	883.8	19.0
40°-50°	853.2	18.3
50°-60°	703.8	15.1
60°-70°	468.7	10.1
70°-80°	209.7	4.5
80°-90°	37.5	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°	1501.1	32.2
0°-40°	2385.0	51.2
0°-60°	3942.0	84.6
0°-90°	4658.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4658.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2014	2014	2014	2014	2014	
5°	2012	2011	2004	1993	1987	190
15°	1896	1901	1896	1888	1874	535
25°	1684	1697	1705	1692	1678	771
35°	1354	1373	1436	1443	1438	849
45°	1049	1066	1101	1152	1158	809
55°	734	747	783	826	850	655
65°	430	442	468	502	530	427
75°	173	182	195	204	216	189
85°	27	27	27	26	26	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2014.5	2014.5	2014.5	2014.5	2014.5
2.5°	2019.9	2020.7	2016.0	2003.6	1995.9
5°	2012.1	2011.4	2003.6	1992.8	1986.6
7.5°	1989.7	1991.2	1988.9	1973.4	1964.9
10°	1968.0	1968.8	1962.6	1950.2	1940.2
12.5°	1940.2	1939.4	1930.9	1924.7	1908.4
15°	1896.1	1900.7	1896.1	1887.5	1874.4
17.5°	1853.5	1853.5	1856.6	1841.9	1831.8
20°	1805.5	1807.8	1807.8	1796.2	1784.6
22.5°	1749.8	1756.8	1759.1	1746.7	1732.8
25°	1684.0	1697.2	1704.9	1692.5	1677.8
27.5°	1604.3	1624.4	1647.6	1638.3	1622.1
30°	1515.3	1544.7	1583.4	1575.7	1564.1
32.5°	1430.9	1460.4	1513.8	1510.7	1504.5
35°	1354.3	1372.9	1435.6	1443.3	1437.9
37.5°	1281.6	1298.6	1357.4	1375.2	1370.6
40°	1205.0	1223.5	1270.0	1301.7	1303.2
42.5°	1129.1	1146.9	1184.8	1230.5	1230.5
45°	1048.6	1066.4	1101.3	1151.6	1157.8
47.5°	969.7	988.3	1022.3	1072.6	1082.7
50°	892.3	909.3	943.4	992.1	1007.6
52.5°	811.8	830.4	863.7	908.6	931.0
55°	734.4	746.8	783.2	826.5	850.5
57.5°	653.9	665.6	706.6	743.7	768.5
60°	576.6	591.3	623.0	660.9	689.5
62.5°	502.3	517.7	544.8	578.1	610.6
65°	430.3	441.9	468.2	501.5	530.1
67.5°	360.6	370.7	397.0	420.2	450.4
70°	290.2	303.4	322.7	345.2	364.5
72.5°	233.7	239.1	255.4	271.6	291.8
75°	172.6	181.9	195.0	204.3	215.9
77.5°	123.8	129.2	137.0	144.7	155.6
80°	82.8	85.1	92.1	93.6	102.2
82.5°	50.3	51.9	53.4	54.2	57.3
85°	27.1	27.1	27.1	25.5	25.5
87.5°	15.5	15.5	13.2	10.8	7.7
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)