

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: P557219

Luminaire Tested: **FUSL-12-4-LD4-2LO-30-UNV-93-85-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: P557219
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-LD4-2LO-30-UNV-93-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

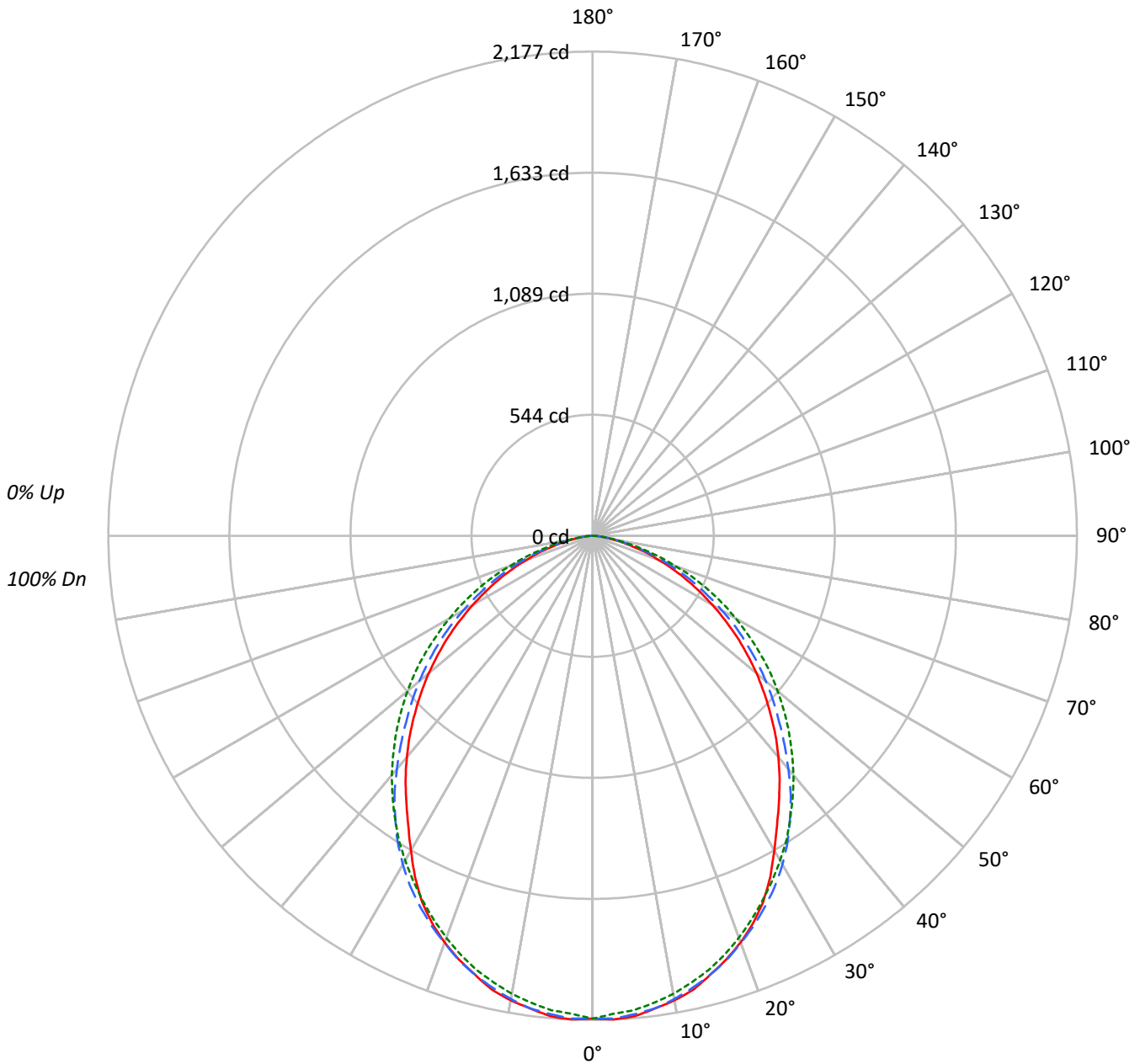
Lumens per Lamp: N/A
Luminaire Lumens: 5020.0 lumens
Efficiency: N/A
Efficacy: 107.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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

TEST NUMBER: P557219

CATALOG NUMBER: FUSL-12-4-LD4-2LO-30-UNV-93-85-EDD

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°	5842	5842	5842
5°	5858	5833	5783
10°	5796	5779	5714
15°	5693	5693	5628
20°	5572	5579	5508
25°	5389	5456	5369
30°	5074	5303	5238
35°	4795	5083	5091
40°	4562	4808	4934
45°	4301	4517	4748
50°	4026	4256	4546
55°	3713	3960	4300
60°	3344	3613	3999
65°	2953	3213	3638
70°	2461	2736	3091
75°	1934	2185	2419
80°	1382	1539	1706
85°	902	902	849



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	204.4	4.1
10°-20°	574.2	11.4
20°-30°	839.2	16.7
30°-40°	952.5	19.0
40°-50°	919.5	18.3
50°-60°	758.6	15.1
60°-70°	505.1	10.1
70°-80°	226.0	4.5
80°-90°	40.4	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°	1617.8	32.2
0°-40°	2570.3	51.2
0°-60°	4248.4	84.6
0°-90°	5020.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5020.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2171	2171	2171	2171	2171	
5°	2168	2168	2159	2148	2141	205
15°	2043	2048	2043	2034	2020	576
25°	1815	1829	1837	1824	1808	831
35°	1460	1480	1547	1556	1550	915
45°	1130	1149	1187	1241	1248	872
55°	792	805	844	891	917	706
65°	464	476	505	540	571	460
75°	186	196	210	220	233	203
85°	29	29	29	28	28	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2171.0	2171.0	2171.0	2171.0	2171.0
2.5°	2176.9	2177.7	2172.7	2159.3	2151.0
5°	2168.5	2167.7	2159.3	2147.7	2141.0
7.5°	2144.3	2146.0	2143.5	2126.8	2117.6
10°	2121.0	2121.8	2115.1	2101.8	2091.0
12.5°	2091.0	2090.1	2080.9	2074.3	2056.8
15°	2043.4	2048.4	2043.4	2034.2	2020.1
17.5°	1997.5	1997.5	2000.9	1985.0	1974.2
20°	1945.8	1948.3	1948.3	1935.8	1923.3
22.5°	1885.8	1893.3	1895.8	1882.4	1867.4
25°	1814.9	1829.1	1837.4	1824.1	1808.2
27.5°	1729.0	1750.7	1775.7	1765.7	1748.2
30°	1633.1	1664.8	1706.5	1698.1	1685.6
32.5°	1542.2	1573.8	1631.4	1628.1	1621.4
35°	1459.6	1479.6	1547.2	1555.5	1549.7
37.5°	1381.2	1399.5	1462.9	1482.1	1477.1
40°	1298.6	1318.6	1368.7	1402.9	1404.5
42.5°	1216.9	1236.1	1276.9	1326.1	1326.1
45°	1130.1	1149.3	1186.8	1241.1	1247.7
47.5°	1045.1	1065.1	1101.8	1156.0	1166.8
50°	961.7	980.0	1016.7	1069.2	1085.9
52.5°	874.9	894.9	930.8	979.2	1003.4
55°	791.5	804.9	844.1	890.8	916.6
57.5°	704.8	717.3	761.5	801.5	828.2
60°	621.4	637.2	671.4	712.3	743.1
62.5°	541.3	558.0	587.2	623.0	658.1
65°	463.7	476.2	504.6	540.5	571.3
67.5°	388.7	399.5	427.9	452.9	485.4
70°	312.8	326.9	347.8	372.0	392.8
72.5°	251.9	257.7	275.2	292.7	314.4
75°	186.0	196.0	210.2	220.2	232.7
77.5°	133.4	139.3	147.6	156.0	167.6
80°	89.2	91.7	99.3	100.9	110.1
82.5°	54.2	55.9	57.5	58.4	61.7
85°	29.2	29.2	29.2	27.5	27.5
87.5°	16.7	16.7	14.2	11.7	8.3
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)