

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: P556620

Luminaire Tested: **FUSL-12-4-LD4-1LO-50-UNV-81-96-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: P556620
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-LD4-1LO-50-UNV-81-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

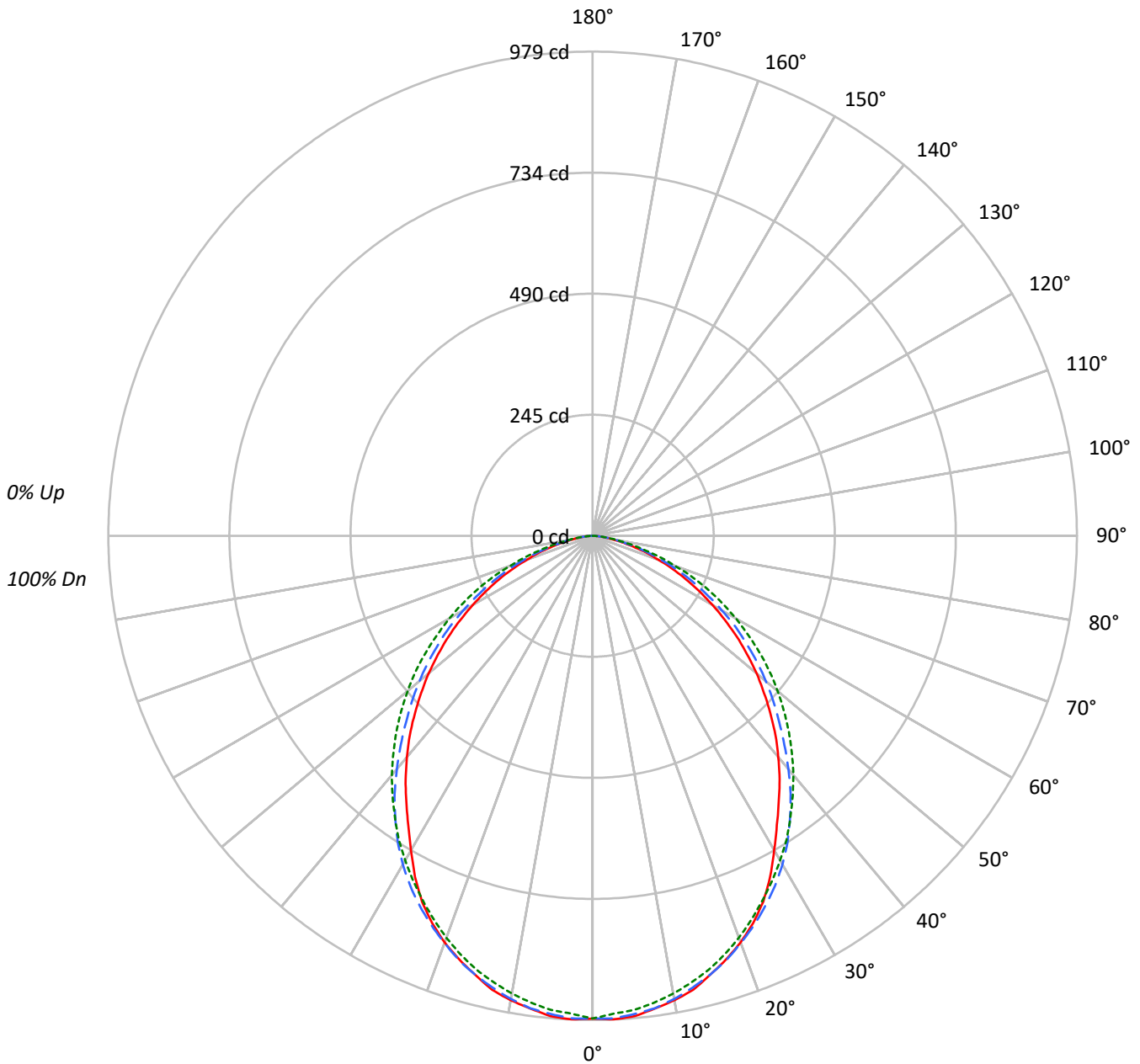
Lumens per Lamp: N/A
Luminaire Lumens: 2257.0 lumens
Efficiency: N/A
Efficacy: 96.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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°	2627	2627	2627
5°	2634	2622	2600
10°	2606	2599	2569
15°	2559	2559	2530
20°	2505	2509	2476
25°	2423	2453	2414
30°	2281	2384	2355
35°	2156	2285	2289
40°	2051	2162	2218
45°	1934	2031	2135
50°	1810	1914	2044
55°	1670	1780	1933
60°	1504	1625	1798
65°	1328	1445	1636
70°	1106	1231	1389
75°	869	983	1088
80°	621	691	767
85°	404	404	383



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.9	4.1
10°-20°	258.2	11.4
20°-30°	377.3	16.7
30°-40°	428.3	19.0
40°-50°	413.4	18.3
50°-60°	341.1	15.1
60°-70°	227.1	10.1
70°-80°	101.6	4.5
80°-90°	18.2	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°	727.4	32.2
0°-40°	1155.6	51.2
0°-60°	1910.1	84.6
0°-90°	2257.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2257.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	976	976	976	976	976	
5°	975	975	971	966	963	92
15°	919	921	919	915	908	259
25°	816	822	826	820	813	374
35°	656	665	696	699	697	411
45°	508	517	534	558	561	392
55°	356	362	380	400	412	318
65°	208	214	227	243	257	207
75°	84	88	94	99	105	91
85°	13	13	13	12	12	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	976.1	976.1	976.1	976.1	976.1
2.5°	978.7	979.1	976.8	970.8	967.1
5°	975.0	974.6	970.8	965.6	962.6
7.5°	964.1	964.8	963.7	956.2	952.1
10°	953.6	954.0	951.0	945.0	940.1
12.5°	940.1	939.7	935.6	932.6	924.7
15°	918.7	921.0	918.7	914.6	908.2
17.5°	898.1	898.1	899.6	892.5	887.6
20°	874.8	876.0	876.0	870.3	864.7
22.5°	847.8	851.2	852.3	846.3	839.6
25°	816.0	822.3	826.1	820.1	813.0
27.5°	777.4	787.1	798.3	793.8	786.0
30°	734.2	748.5	767.2	763.5	757.9
32.5°	693.4	707.6	733.5	732.0	729.0
35°	656.2	665.2	695.6	699.4	696.7
37.5°	621.0	629.2	657.7	666.4	664.1
40°	583.9	592.9	615.4	630.7	631.5
42.5°	547.1	555.7	574.1	596.2	596.2
45°	508.1	516.7	533.6	558.0	561.0
47.5°	469.9	478.9	495.4	519.7	524.6
50°	432.4	440.6	457.1	480.7	488.2
52.5°	393.4	402.4	418.5	440.2	451.1
55°	355.9	361.9	379.5	400.5	412.1
57.5°	316.9	322.5	342.4	360.4	372.4
60°	279.4	286.5	301.9	320.2	334.1
62.5°	243.4	250.9	264.0	280.1	295.9
65°	208.5	214.1	226.9	243.0	256.9
67.5°	174.7	179.6	192.4	203.6	218.2
70°	140.6	147.0	156.4	167.2	176.6
72.5°	113.2	115.9	123.7	131.6	141.4
75°	83.6	88.1	94.5	99.0	104.6
77.5°	60.0	62.6	66.4	70.1	75.4
80°	40.1	41.2	44.6	45.4	49.5
82.5°	24.4	25.1	25.9	26.2	27.7
85°	13.1	13.1	13.1	12.4	12.4
87.5°	7.5	7.5	6.4	5.2	3.7
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)