

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: P556764

Luminaire Tested: **FUSL-12-4-LD4-1STD-35-UNV-82-96-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: P556764
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-LD4-1STD-35-UNV-82-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

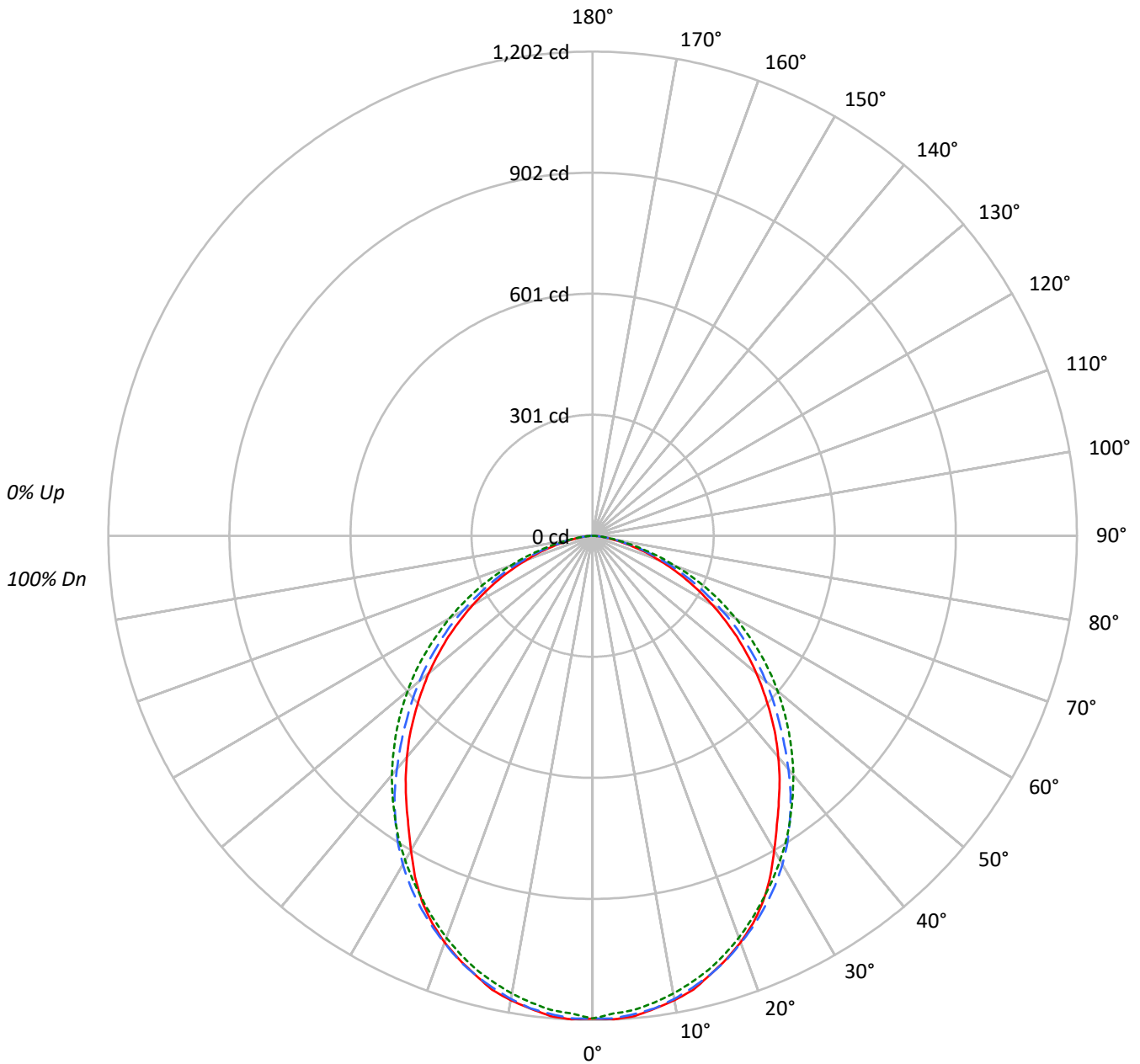
Lumens per Lamp: N/A
Luminaire Lumens: 2771.0 lumens
Efficiency: N/A
Efficacy: 83.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	3225	3225	3225
5°	3233	3220	3192
10°	3199	3190	3154
15°	3142	3142	3107
20°	3076	3080	3040
25°	2975	3011	2964
30°	2801	2927	2891
35°	2647	2805	2810
40°	2518	2654	2723
45°	2374	2493	2621
50°	2222	2349	2509
55°	2050	2186	2374
60°	1846	1995	2208
65°	1630	1773	2008
70°	1358	1511	1706
75°	1068	1206	1335
80°	764	849	942
85°	497	497	469



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.8	4.1
10°-20°	317.0	11.4
20°-30°	463.2	16.7
30°-40°	525.8	19.0
40°-50°	507.6	18.3
50°-60°	418.7	15.1
60°-70°	278.8	10.1
70°-80°	124.8	4.5
80°-90°	22.3	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°	893.0	32.2
0°-40°	1418.8	51.2
0°-60°	2345.1	84.6
0°-90°	2771.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2771.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1198	1198	1198	1198	1198	
5°	1197	1196	1192	1186	1182	113
15°	1128	1131	1128	1123	1115	318
25°	1002	1010	1014	1007	998	459
35°	806	817	854	859	855	505
45°	624	634	655	685	689	481
55°	437	444	466	492	506	390
65°	256	263	278	298	315	254
75°	103	108	116	122	128	112
85°	16	16	16	15	15	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1198.4	1198.4	1198.4	1198.4	1198.4
2.5°	1201.6	1202.1	1199.3	1191.9	1187.3
5°	1197.0	1196.5	1191.9	1185.5	1181.8
7.5°	1183.7	1184.6	1183.2	1174.0	1168.9
10°	1170.8	1171.2	1167.5	1160.2	1154.2
12.5°	1154.2	1153.7	1148.7	1145.0	1135.3
15°	1127.9	1130.7	1127.9	1122.9	1115.1
17.5°	1102.6	1102.6	1104.5	1095.7	1089.7
20°	1074.1	1075.5	1075.5	1068.6	1061.7
22.5°	1040.9	1045.1	1046.5	1039.1	1030.8
25°	1001.8	1009.6	1014.2	1006.9	998.1
27.5°	954.4	966.4	980.2	974.6	965.0
30°	901.4	918.9	942.0	937.3	930.4
32.5°	851.3	868.7	900.5	898.7	895.0
35°	805.7	816.7	854.0	858.6	855.4
37.5°	762.4	772.5	807.5	818.1	815.3
40°	716.8	727.9	755.5	774.4	775.3
42.5°	671.7	682.3	704.9	732.0	732.0
45°	623.8	634.4	655.1	685.1	688.7
47.5°	576.9	587.9	608.2	638.1	644.1
50°	530.8	541.0	561.2	590.2	599.4
52.5°	482.9	494.0	513.8	540.5	553.8
55°	436.9	444.3	465.9	491.7	506.0
57.5°	389.0	395.9	420.3	442.4	457.2
60°	343.0	351.7	370.6	393.2	410.2
62.5°	298.8	308.0	324.1	343.9	363.2
65°	256.0	262.9	278.5	298.3	315.4
67.5°	214.5	220.5	236.2	250.0	267.9
70°	172.6	180.5	192.0	205.3	216.8
72.5°	139.0	142.3	151.9	161.6	173.6
75°	102.7	108.2	116.0	121.5	128.4
77.5°	73.7	76.9	81.5	86.1	92.5
80°	49.3	50.6	54.8	55.7	60.8
82.5°	29.9	30.8	31.8	32.2	34.1
85°	16.1	16.1	16.1	15.2	15.2
87.5°	9.2	9.2	7.8	6.4	4.6
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)