

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: P556677

Luminaire Tested: **FUSL-12-4-LD4-1STD-30-UNV-81-86-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: P556677
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-30-UNV-81-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

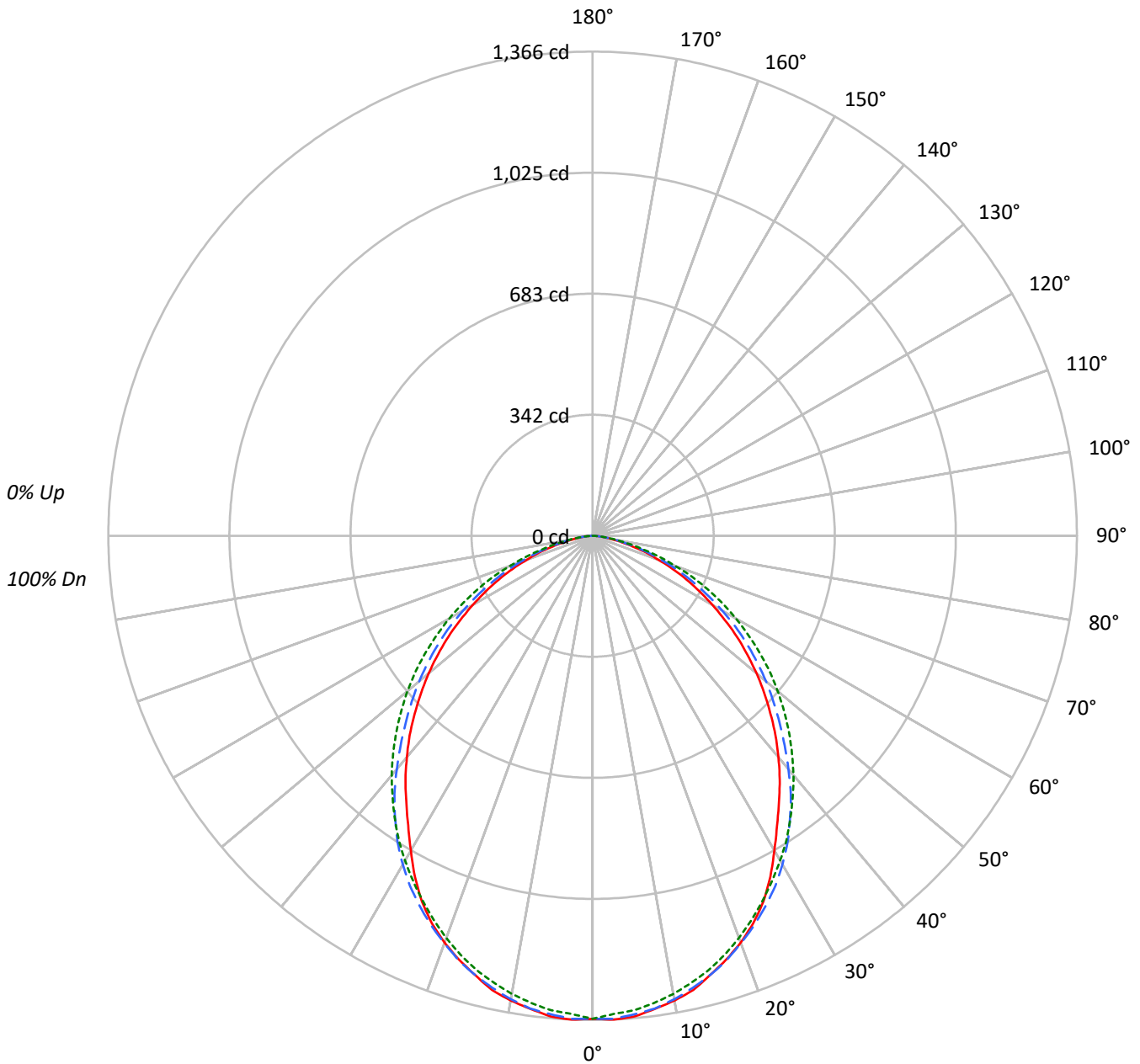
Lumens per Lamp: N/A
Luminaire Lumens: 3151.0 lumens
Efficiency: N/A
Efficacy: 94.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (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

TEST NUMBER: P556677

CATALOG NUMBER: FUSL-12-4-LD4-1STD-30-UNV-81-86-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°	3667	3667	3667
5°	3677	3661	3630
10°	3638	3628	3586
15°	3573	3573	3533
20°	3498	3502	3457
25°	3382	3424	3370
30°	3185	3328	3287
35°	3010	3190	3195
40°	2863	3018	3097
45°	2700	2835	2981
50°	2527	2672	2853
55°	2331	2486	2699
60°	2099	2268	2511
65°	1854	2017	2283
70°	1544	1718	1940
75°	1213	1371	1519
80°	868	965	1071
85°	565	565	534



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.3	4.1
10°-20°	360.4	11.4
20°-30°	526.7	16.7
30°-40°	597.9	19.0
40°-50°	577.2	18.3
50°-60°	476.1	15.1
60°-70°	317.1	10.1
70°-80°	141.9	4.5
80°-90°	25.4	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°	1015.5	32.2
0°-40°	1613.4	51.2
0°-60°	2666.7	84.6
0°-90°	3151.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3151.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1363	1363	1363	1363	1363	
5°	1361	1361	1355	1348	1344	129
15°	1283	1286	1283	1277	1268	362
25°	1139	1148	1153	1145	1135	522
35°	916	929	971	976	973	574
45°	709	721	745	779	783	547
55°	497	505	530	559	575	443
65°	291	299	317	339	359	289
75°	117	123	132	138	146	128
85°	18	18	18	17	17	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1362.7	1362.7	1362.7	1362.7	1362.7
2.5°	1366.4	1366.9	1363.8	1355.4	1350.2
5°	1361.2	1360.6	1355.4	1348.1	1343.9
7.5°	1346.0	1347.0	1345.4	1335.0	1329.2
10°	1331.3	1331.8	1327.7	1319.3	1312.5
12.5°	1312.5	1311.9	1306.2	1302.0	1291.0
15°	1282.6	1285.8	1282.6	1276.9	1268.0
17.5°	1253.8	1253.8	1255.9	1246.0	1239.2
20°	1221.4	1222.9	1222.9	1215.1	1207.2
22.5°	1183.7	1188.4	1190.0	1181.6	1172.2
25°	1139.2	1148.1	1153.3	1144.9	1135.0
27.5°	1085.3	1098.9	1114.6	1108.3	1097.3
30°	1025.1	1044.9	1071.1	1065.9	1058.0
32.5°	968.0	987.9	1024.0	1021.9	1017.7
35°	916.2	928.7	971.1	976.4	972.7
37.5°	867.0	878.5	918.3	930.3	927.2
40°	815.1	827.7	859.1	880.6	881.6
42.5°	763.8	775.9	801.5	832.4	832.4
45°	709.4	721.4	745.0	779.0	783.2
47.5°	656.0	668.5	691.6	725.6	732.4
50°	603.6	615.1	638.2	671.2	681.6
52.5°	549.2	561.7	584.2	614.6	629.8
55°	496.8	505.2	529.8	559.1	575.3
57.5°	442.4	450.2	478.0	503.1	519.9
60°	390.0	400.0	421.4	447.1	466.5
62.5°	339.8	350.2	368.6	391.1	413.1
65°	291.1	298.9	316.7	339.2	358.6
67.5°	244.0	250.8	268.6	284.3	304.7
70°	196.3	205.2	218.3	233.5	246.6
72.5°	158.1	161.8	172.8	183.8	197.4
75°	116.7	123.0	131.9	138.2	146.1
77.5°	83.8	87.4	92.7	97.9	105.2
80°	56.0	57.6	62.3	63.3	69.1
82.5°	34.0	35.1	36.1	36.6	38.7
85°	18.3	18.3	18.3	17.3	17.3
87.5°	10.5	10.5	8.9	7.3	5.2
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)