

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: P556898

Luminaire Tested: **FUSL-12-4-LD4-1STD-50-UNV-93-85-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: P556898
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-50-UNV-93-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

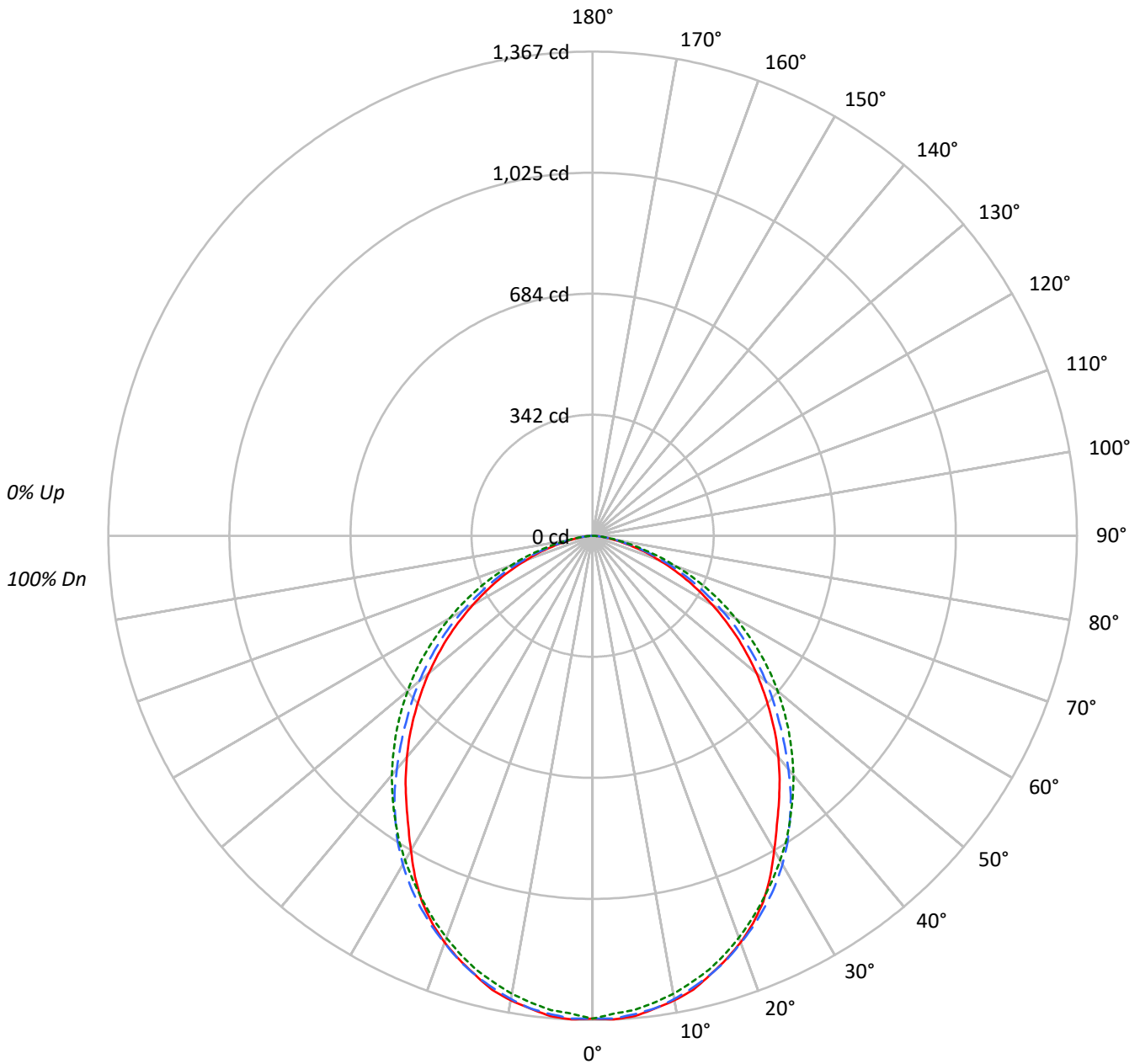
Lumens per Lamp: N/A
Luminaire Lumens: 3152.0 lumens
Efficiency: N/A
Efficacy: 94.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	3668	3668	3668
5°	3678	3662	3631
10°	3639	3629	3587
15°	3574	3574	3534
20°	3499	3503	3458
25°	3383	3426	3371
30°	3186	3329	3289
35°	3011	3191	3196
40°	2864	3019	3098
45°	2700	2836	2981
50°	2528	2673	2854
55°	2332	2487	2700
60°	2100	2269	2511
65°	1854	2017	2284
70°	1545	1718	1941
75°	1214	1372	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°	360.6	11.4
20°-30°	526.9	16.7
30°-40°	598.1	19.0
40°-50°	577.4	18.3
50°-60°	476.3	15.1
60°-70°	317.2	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°	1015.8	32.2
0°-40°	1613.9	51.2
0°-60°	2667.5	84.6
0°-90°	3152.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3152.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1363	1363	1363	1363	1363	
5°	1362	1361	1356	1348	1344	129
15°	1283	1286	1283	1277	1268	362
25°	1140	1148	1154	1145	1135	522
35°	916	929	971	977	973	574
45°	710	722	745	779	783	548
55°	497	505	530	559	576	444
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°	1363.2	1363.2	1363.2	1363.2	1363.2
2.5°	1366.8	1367.3	1364.2	1355.8	1350.6
5°	1361.6	1361.1	1355.8	1348.5	1344.3
7.5°	1346.4	1347.4	1345.9	1335.4	1329.6
10°	1331.7	1332.3	1328.1	1319.7	1312.9
12.5°	1312.9	1312.4	1306.6	1302.4	1291.4
15°	1283.0	1286.2	1283.0	1277.3	1268.4
17.5°	1254.2	1254.2	1256.3	1246.4	1239.6
20°	1221.8	1223.3	1223.3	1215.5	1207.6
22.5°	1184.1	1188.8	1190.3	1182.0	1172.5
25°	1139.5	1148.4	1153.7	1145.3	1135.4
27.5°	1085.6	1099.2	1114.9	1108.6	1097.6
30°	1025.4	1045.3	1071.5	1066.2	1058.4
32.5°	968.3	988.2	1024.3	1022.2	1018.0
35°	916.5	929.0	971.4	976.7	973.0
37.5°	867.2	878.7	918.5	930.6	927.5
40°	815.4	827.9	859.4	880.8	881.9
42.5°	764.1	776.1	801.8	832.7	832.7
45°	709.6	721.6	745.2	779.2	783.4
47.5°	656.2	668.7	691.8	725.8	732.6
50°	603.8	615.3	638.4	671.4	681.8
52.5°	549.3	561.9	584.4	614.8	630.0
55°	497.0	505.4	530.0	559.3	575.5
57.5°	442.5	450.4	478.1	503.3	520.0
60°	390.1	400.1	421.6	447.2	466.6
62.5°	339.9	350.3	368.7	391.2	413.2
65°	291.2	299.0	316.8	339.3	358.7
67.5°	244.0	250.8	268.7	284.4	304.8
70°	196.4	205.3	218.4	233.6	246.7
72.5°	158.2	161.8	172.8	183.8	197.4
75°	116.8	123.1	132.0	138.3	146.1
77.5°	83.8	87.5	92.7	97.9	105.3
80°	56.0	57.6	62.3	63.4	69.1
82.5°	34.0	35.1	36.1	36.7	38.8
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)