

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: P556816

Luminaire Tested: **FUSL-12-4-LD4-1STD-40-UNV-82-84-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: P556816
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-40-UNV-82-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

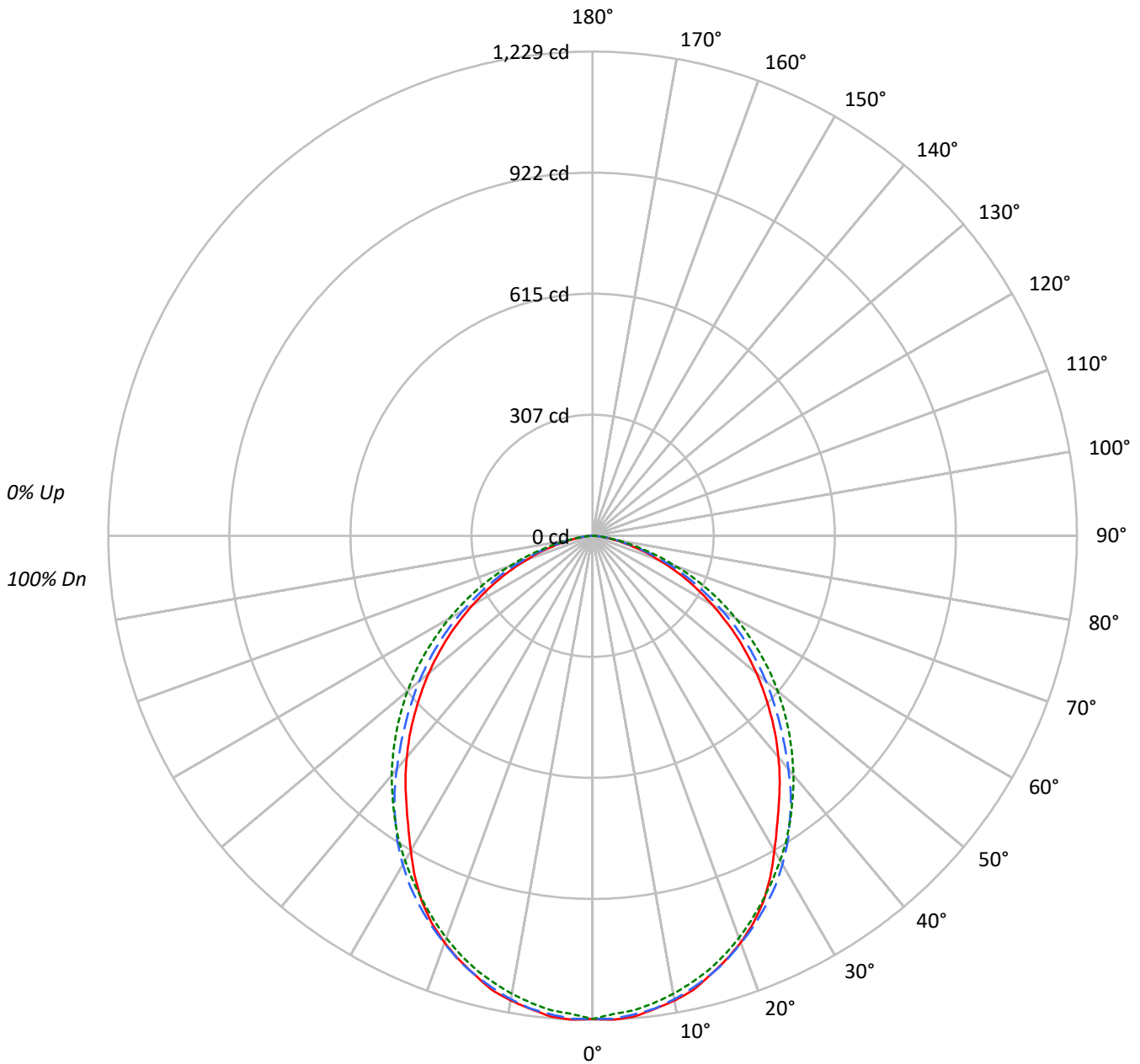
Lumens per Lamp: N/A
Luminaire Lumens: 2835.0 lumens
Efficiency: N/A
Efficacy: 85.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20					
RC	80					70					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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86					86			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73					73			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63					63			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54					54			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42					42			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34					34			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30					30			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28					28			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3299	3299	3299
5°	3308	3294	3266
10°	3273	3264	3227
15°	3215	3215	3178
20°	3147	3151	3111
25°	3043	3081	3032
30°	2866	2994	2958
35°	2708	2870	2875
40°	2576	2715	2786
45°	2429	2551	2681
50°	2274	2404	2568
55°	2097	2236	2429
60°	1889	2041	2259
65°	1668	1815	2054
70°	1389	1545	1746
75°	1092	1234	1366
80°	781	869	964
85°	509	509	479



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.4	4.1
10°-20°	324.3	11.4
20°-30°	473.9	16.7
30°-40°	537.9	19.0
40°-50°	519.3	18.3
50°-60°	428.4	15.1
60°-70°	285.3	10.1
70°-80°	127.7	4.5
80°-90°	22.8	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°	913.6	32.2
0°-40°	1451.6	51.2
0°-60°	2399.2	84.6
0°-90°	2835.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2835.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1226	1226	1226	1226	1226	
5°	1225	1224	1220	1213	1209	116
15°	1154	1157	1154	1149	1141	325
25°	1025	1033	1038	1030	1021	469
35°	824	836	874	878	875	516
45°	638	649	670	701	705	492
55°	447	454	477	503	518	399
65°	262	269	285	305	323	260
75°	105	111	119	124	131	115
85°	16	16	16	16	16	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1226.1	1226.1	1226.1	1226.1	1226.1
2.5°	1229.4	1229.8	1227.0	1219.5	1214.8
5°	1224.7	1224.2	1219.5	1212.9	1209.1
7.5°	1211.0	1211.9	1210.5	1201.1	1195.9
10°	1197.8	1198.3	1194.5	1187.0	1180.8
12.5°	1180.8	1180.4	1175.2	1171.4	1161.5
15°	1154.0	1156.8	1154.0	1148.8	1140.8
17.5°	1128.1	1128.1	1130.0	1121.0	1114.9
20°	1098.9	1100.3	1100.3	1093.2	1086.2
22.5°	1065.0	1069.2	1070.6	1063.1	1054.6
25°	1024.9	1032.9	1037.7	1030.1	1021.2
27.5°	976.4	988.7	1002.8	997.1	987.3
30°	922.3	940.2	963.7	959.0	951.9
32.5°	870.9	888.8	921.3	919.4	915.7
35°	824.3	835.6	873.7	878.5	875.2
37.5°	780.0	790.4	826.2	837.0	834.2
40°	733.4	744.7	772.9	792.3	793.2
42.5°	687.2	698.1	721.1	748.9	748.9
45°	638.2	649.1	670.3	700.9	704.6
47.5°	590.2	601.5	622.2	652.8	659.0
50°	543.1	553.4	574.2	603.8	613.3
52.5°	494.1	505.4	525.7	553.0	566.6
55°	447.0	454.5	476.7	503.0	517.7
57.5°	398.0	405.1	430.0	452.6	467.7
60°	350.9	359.9	379.2	402.3	419.7
62.5°	305.7	315.1	331.6	351.9	371.6
65°	261.9	269.0	285.0	305.2	322.6
67.5°	219.5	225.6	241.6	255.8	274.1
70°	176.6	184.6	196.4	210.1	221.9
72.5°	142.2	145.5	155.4	165.3	177.6
75°	105.0	110.7	118.7	124.3	131.4
77.5°	75.4	78.7	83.4	88.1	94.7
80°	50.4	51.8	56.1	57.0	62.2
82.5°	30.6	31.6	32.5	33.0	34.9
85°	16.5	16.5	16.5	15.5	15.5
87.5°	9.4	9.4	8.0	6.6	4.7
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)