

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: G3-1708-221-5

Luminaire Tested: **FUSL-N12-2-LD4-3STD-40-UNV-80/86-EDC1**

Test Date: 11/14/17



Test Information

Test Method: LM-79-08
Report Number: G3-1708-221-5
Test Lab: INNOVATION CENTER(G3)
Test Date: 11/14/17
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FUSL-N12-2-LD4-3STD-40-UNV-80/86-EDC1
Description: FUSL CONFINEMENT/CORRECTIONAL LED LUMINAIRE
Light Source: (168) NICHIA 4000K LEDS
757-GV1
Ballast/Driver: (2) OSRAM ELECTRONIC DRIVER @ 700 mA & @ 350 mA
OTi50/120-277/1A4 DIM L

Summary

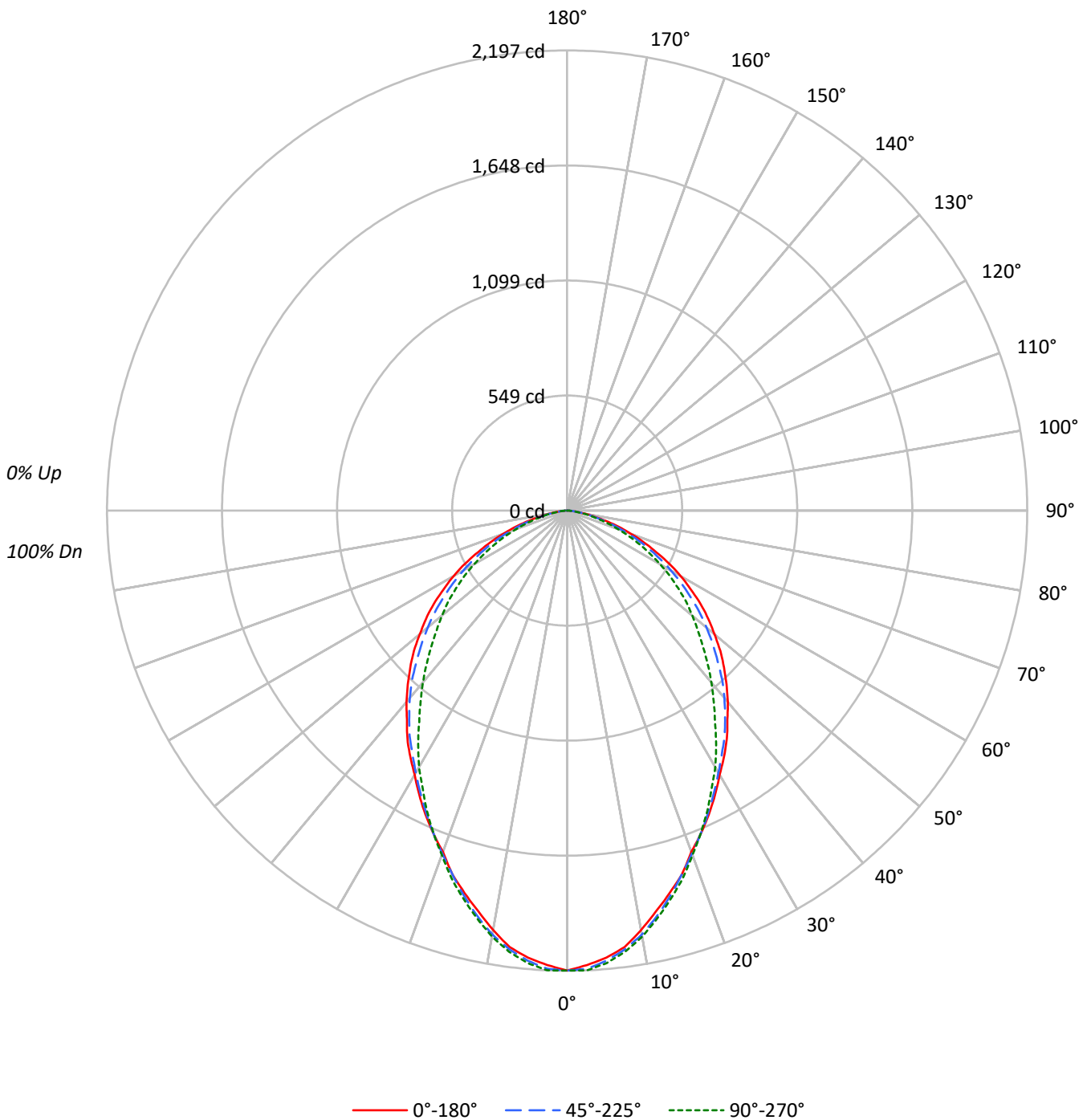
Lumens per Lamp: N/A
Luminaire Lumens: 4353.0 lumens
Efficiency: N/A
Efficacy: 88.7 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 1 / 1.16
Luminous Opening: Rectangular (W 0.46' x L: 1.79' x H: 0')
CIE Type: Direct

Input Watts (W): 49.1
Input Voltage (V): 120.0
Input Current (Ain): 0.411
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 4.99%
Frequency (hertz): 60
Stabilization Time: 0.5 HR
Operation Time: 7 HR
Ambient Temperature (°C): 25.5
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	99	107	104	100	97	99	97	94	95	93	91	92	90	88					86				
2	101	93	87	82	98	92	86	81	88	83	79	85	81	77	82	79	76					74				
3	93	83	76	70	90	81	75	69	79	73	68	76	71	67	73	69	65					63				
4	85	74	66	60	83	73	65	59	71	64	59	68	63	58	66	61	57					55				
5	79	67	58	52	77	66	58	52	64	57	51	62	56	51	60	55	50					48				
6	73	61	52	46	71	60	52	46	58	51	46	56	50	45	55	49	45					43				
7	68	55	47	41	66	55	47	41	53	46	41	52	45	40	50	45	40					38				
8	64	51	43	37	62	50	42	37	49	42	37	48	41	37	46	41	36					35				
9	60	47	39	34	58	46	39	34	45	38	33	44	38	33	43	37	33					31				
10	56	43	36	31	55	43	36	31	42	35	31	41	35	30	40	34	30					29				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	28785	28785	28785
5°	28184	28382	28526
10°	27073	27352	27485
15°	25661	25838	26014
20°	24188	24313	24411
25°	23155	23039	22895
30°	22038	21871	21402
35°	21282	20978	19698
40°	20414	19986	18326
45°	19631	18834	16980
50°	18720	17721	15906
55°	17780	16454	14786
60°	16437	14969	13449
65°	14546	13306	11817
70°	12456	11191	9888
75°	9673	8711	7799
80°	6492	5963	5435
85°	3309	3910	4361



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	202.5	4.7
10°-20°	534.7	12.3
20°-30°	733.4	16.8
30°-40°	810.4	18.6
40°-50°	774.7	17.8
50°-60°	643.5	14.8
60°-70°	430.0	9.9
70°-80°	189.7	4.4
80°-90°	34.1	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°	1470.6	33.8
0°-40°	2281.0	52.4
0°-60°	3699.1	85.0
0°-90°	4353.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4353.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2196	2196	2196	2196	2196	
5°	2142	2146	2157	2165	2168	201
15°	1891	1897	1904	1914	1917	531
25°	1601	1594	1593	1590	1583	736
35°	1330	1320	1311	1271	1231	830
45°	1059	1056	1016	953	916	817
55°	778	775	720	673	647	693
65°	469	477	429	403	381	468
75°	191	192	172	164	154	208
85°	22	24	26	28	29	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2196	2196	2196	2196	2196
2.5°	2172	2177	2189	2195	2197
5°	2142	2146	2157	2165	2168
7.5°	2102	2104	2113	2119	2124
10°	2034	2040	2055	2059	2065
12.5°	1960	1965	1983	1984	1993
15°	1891	1897	1904	1914	1917
17.5°	1821	1825	1821	1831	1839
20°	1734	1745	1743	1752	1750
22.5°	1669	1664	1668	1668	1667
25°	1601	1594	1593	1590	1583
27.5°	1530	1529	1518	1517	1494
30°	1456	1457	1445	1437	1414
32.5°	1394	1387	1375	1359	1324
35°	1330	1320	1311	1271	1231
37.5°	1257	1257	1239	1186	1149
40°	1193	1188	1168	1107	1071
42.5°	1126	1124	1095	1030	993
45°	1059	1056	1016	953	916
47.5°	992	989	943	878	845
50°	918	919	869	807	780
52.5°	850	849	796	739	716
55°	778	775	720	673	647
57.5°	699	703	646	607	582
60°	627	628	571	537	513
62.5°	550	548	500	472	446
65°	469	477	429	403	381
67.5°	397	403	362	338	320
70°	325	328	292	276	258
72.5°	258	257	230	217	204
75°	191	192	172	164	154
77.5°	134	135	120	116	109
80°	86	86	79	77	72
82.5°	48	48	47	47	45
85°	22	24	26	28	29
87.5°	7	12	14	13	12
90°	0	0	0	0	0

(END OF REPORT)