

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: G3-1708-221-6

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

Test Date: 11/14/17



**Test Information**

Test Method: LM-79-08  
Report Number: G3-1708-221-6  
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-LD4-3LO-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 @ 500 mA & @ 250 mA  
OTi50/120-277/1A4 DIM L

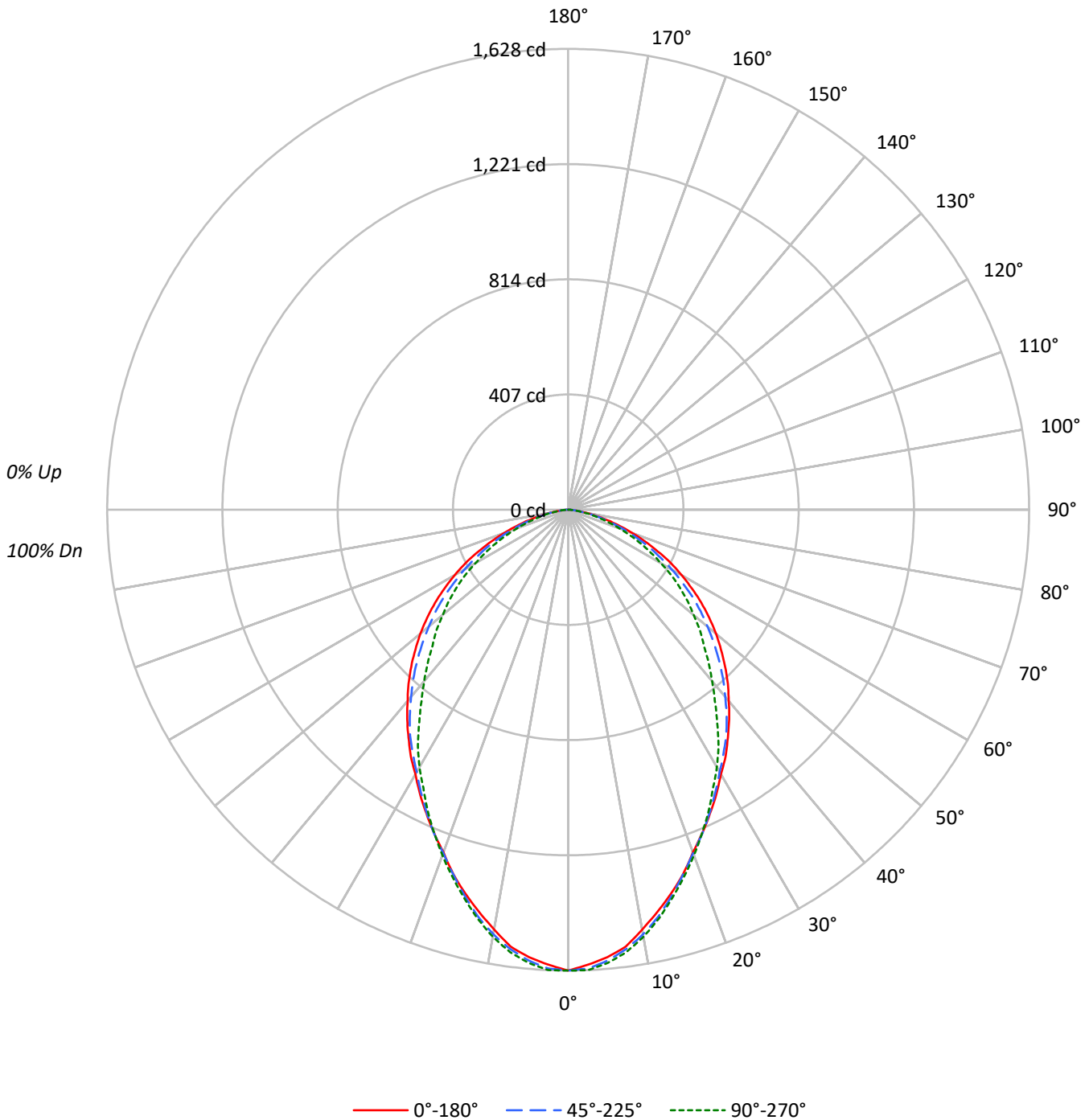
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3227.0 lumens  
Efficiency: N/A  
Efficacy: 92.2 lumens/watt  
Spacing Criteria (0/90/45): 1.01 / 1 / 1.15  
Luminous Opening: Rectangular (W 0.46' x L: 1.79' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 35  
Input Voltage (V): 120.0  
Input Current (Ain): 0.293  
Voltage Rise (V): NR  
Power Factor: 0.9974  
Total Harmonic Distortion (THDi): 4.51%  
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°	21340	21340	21340
5°	20882	21040	21145
10°	20045	20271	20391
15°	19053	19161	19270
20°	17966	17994	18120
25°	17139	17081	16979
30°	16331	16195	15892
35°	15730	15570	14674
40°	15092	14767	13535
45°	14533	13977	12550
50°	13907	13092	11787
55°	13118	12226	11015
60°	12138	11089	9910
65°	10856	9863	8777
70°	9236	8316	7397
75°	7394	6533	5824
80°	4831	4529	4076
85°	2406	3008	3158



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	150.1	4.7
10°-20°	396.4	12.3
20°-30°	543.7	16.8
30°-40°	600.9	18.6
40°-50°	573.7	17.8
50°-60°	477.0	14.8
60°-70°	318.5	9.9
70°-80°	141.2	4.4
80°-90°	25.5	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°	1090.2	33.8
0°-40°	1691.1	52.4
0°-60°	2741.8	85.0
0°-90°	3227.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3227.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1628	1628	1628	1628	1628	
5°	1587	1592	1599	1604	1607	149
15°	1404	1406	1412	1415	1420	394
25°	1185	1184	1181	1178	1174	545
35°	983	982	973	942	917	615
45°	784	782	754	707	677	604
55°	574	574	535	500	482	512
65°	350	352	318	299	283	347
75°	146	142	129	121	115	155
85°	16	18	20	21	21	24
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1628	1628	1628	1628	1628
2.5°	1609	1613	1622	1628	1628
5°	1587	1592	1599	1604	1607
7.5°	1557	1561	1566	1570	1576
10°	1506	1514	1523	1527	1532
12.5°	1455	1459	1472	1472	1479
15°	1404	1406	1412	1415	1420
17.5°	1350	1351	1351	1358	1360
20°	1288	1293	1290	1298	1299
22.5°	1237	1235	1238	1237	1236
25°	1185	1184	1181	1178	1174
27.5°	1133	1132	1126	1125	1108
30°	1079	1079	1070	1063	1050
32.5°	1034	1028	1021	1004	988
35°	983	982	973	942	917
37.5°	934	931	919	882	851
40°	882	882	863	818	791
42.5°	835	832	809	762	734
45°	784	782	754	707	677
47.5°	732	732	698	650	632
50°	682	681	642	600	578
52.5°	628	629	589	549	532
55°	574	574	535	500	482
57.5°	518	522	477	450	433
60°	463	464	423	400	378
62.5°	409	407	368	349	330
65°	350	352	318	299	283
67.5°	295	299	266	251	236
70°	241	243	217	205	193
72.5°	190	190	170	162	151
75°	146	142	129	121	115
77.5°	100	100	91	86	82
80°	64	65	60	57	54
82.5°	36	37	35	35	34
85°	16	18	20	21	21
87.5°	6	8	10	9	9
90°	0	0	0	0	0

(END OF REPORT)