

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: G3-1708-221-4

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

Test Date: 11/14/17



Test Information

Test Method: LM-79-08
Report Number: G3-1708-221-4
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-LD4-3HI-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 @ 900 mA & @ 450 mA
OTi50/120-277/1A4 DIM L

Summary

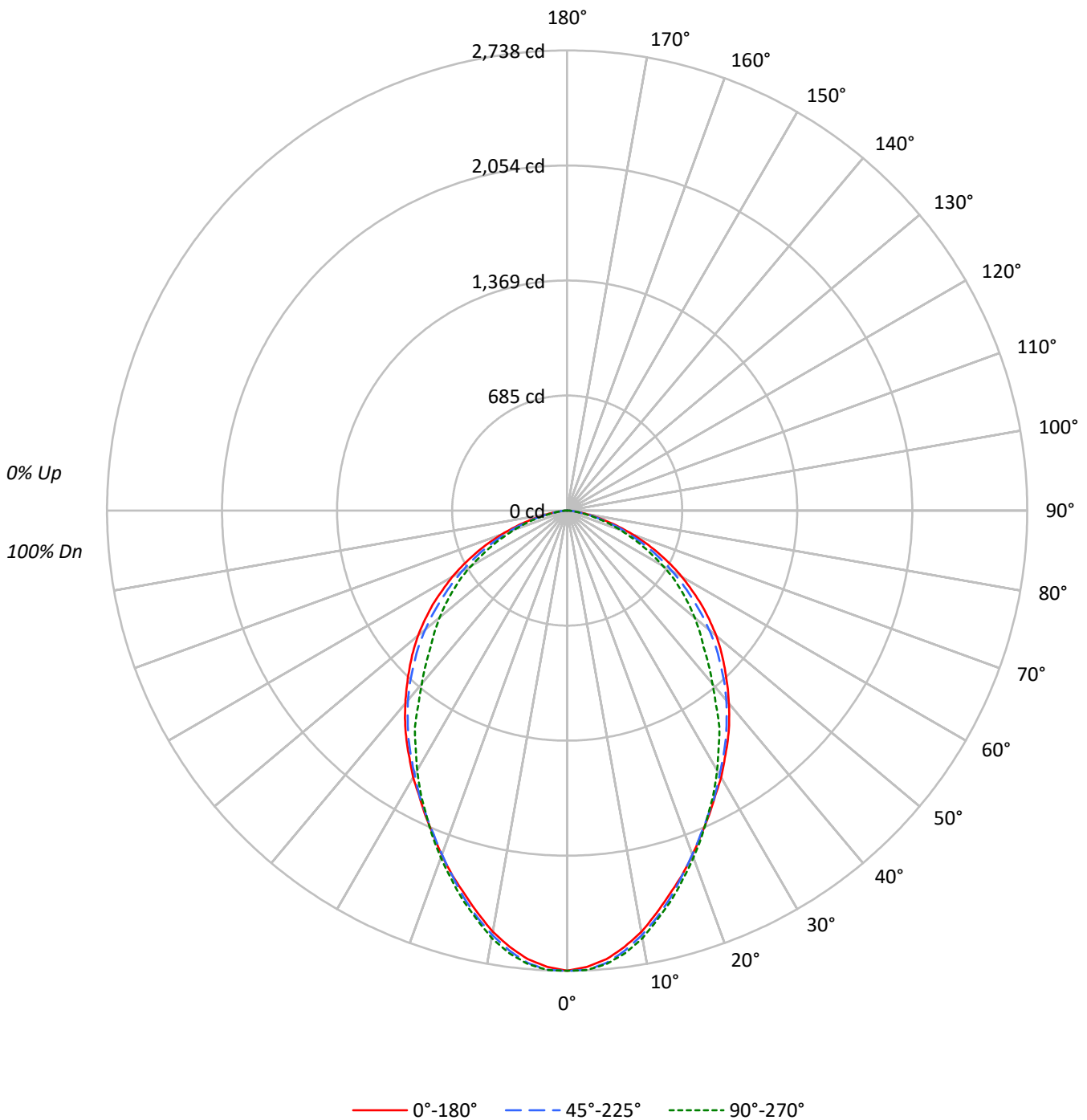
Lumens per Lamp: N/A
Luminaire Lumens: 5483.4 lumens
Efficiency: N/A
Efficacy: 85.3 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 1.01 / 1.16
Luminous Opening: Rectangular (W 0.46' x L: 1.79' x H: 0')
CIE Type: Direct

Input Watts (W): 64.3
Input Voltage (V): 120.0
Input Current (Ain): 0.538
Voltage Rise (V): NR
Power Factor: 0.9992
Total Harmonic Distortion (THDi): 7.31%
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	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86					86			
2	101	93	87	82	98	92	86	81	88	83	79	85	81	77	82	79	76	74					74			
3	93	83	75	69	90	81	74	69	78	72	68	76	71	66	73	69	65	63					63			
4	85	74	66	60	83	73	65	59	70	64	58	68	62	58	66	61	57	55					55			
5	79	67	58	52	77	66	58	52	64	57	51	62	56	51	60	55	50	48					48			
6	73	61	52	46	71	60	52	46	58	51	45	56	50	45	55	49	45	43					43			
7	68	55	47	41	66	54	47	41	53	46	41	51	45	40	50	44	40	38					38			
8	64	51	43	37	62	50	42	37	49	42	37	47	41	36	46	41	36	34					34			
9	60	47	39	34	58	46	39	33	45	38	33	44	38	33	43	37	33	31					31			
10	56	43	36	31	55	43	35	31	42	35	30	41	35	30	40	34	30	29					29			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	35889	35889	35889
5°	35263	35540	35619
10°	33874	34127	34380
15°	32039	32311	32555
20°	30409	30367	30660
25°	28911	28796	28752
30°	27744	27471	27002
35°	26675	26371	25299
40°	25632	25205	23014
45°	24580	23876	21281
50°	23614	22493	20188
55°	22304	20728	18899
60°	20684	18928	17302
65°	18547	16780	15136
70°	15866	14180	12839
75°	12459	11142	10078
80°	8228	7549	6945
85°	4361	4813	5113



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	253.1	4.6
10°-20°	668.2	12.2
20°-30°	918.7	16.8
30°-40°	1021.3	18.6
40°-50°	976.1	17.8
50°-60°	813.0	14.8
60°-70°	546.0	10.0
70°-80°	243.0	4.4
80°-90°	43.8	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°	1840.1	33.6
0°-40°	2861.5	52.2
0°-60°	4650.6	84.8
0°-90°	5483.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5483.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2738	2738	2738	2738	2738	
5°	2680	2683	2701	2709	2707	251
15°	2361	2374	2381	2381	2399	664
25°	1999	1993	1991	1999	1988	921
35°	1667	1657	1648	1614	1581	1042
45°	1326	1324	1288	1198	1148	1024
55°	976	978	907	853	827	870
65°	598	601	541	517	488	593
75°	246	246	220	210	199	265
85°	29	32	32	34	34	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2738	2738	2738	2738	2738
2.5°	2717	2722	2735	2737	2736
5°	2680	2683	2701	2709	2707
7.5°	2618	2628	2640	2651	2655
10°	2545	2555	2564	2576	2583
12.5°	2453	2465	2477	2484	2489
15°	2361	2374	2381	2381	2399
17.5°	2274	2278	2276	2283	2296
20°	2180	2181	2177	2186	2198
22.5°	2084	2087	2081	2090	2095
25°	1999	1993	1991	1999	1988
27.5°	1909	1909	1906	1900	1890
30°	1833	1822	1815	1807	1784
32.5°	1746	1741	1730	1712	1677
35°	1667	1657	1648	1614	1581
37.5°	1584	1579	1559	1511	1453
40°	1498	1496	1473	1401	1345
42.5°	1411	1409	1383	1299	1246
45°	1326	1324	1288	1198	1148
47.5°	1244	1246	1200	1105	1070
50°	1158	1156	1103	1017	990
52.5°	1066	1069	1005	935	910
55°	976	978	907	853	827
57.5°	878	884	814	769	749
60°	789	790	722	688	660
62.5°	693	698	631	602	570
65°	598	601	541	517	488
67.5°	507	507	453	434	410
70°	414	417	370	354	335
72.5°	325	328	294	280	267
75°	246	246	220	210	199
77.5°	174	174	156	147	139
80°	109	109	100	98	92
82.5°	63	62	59	58	57
85°	29	32	32	34	34
87.5°	10	14	19	22	23
90°	0	0	0	0	0

(END OF REPORT)