

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: P485711

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-3LO-20-120-EDD**

Issue Date: 3/1/2021

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: P485711
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35357)
Test Lab: INNOVATION CENTER
Issue Date: 3/1/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORLG-24-2-INS-89BC-LD4-3LO-20-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

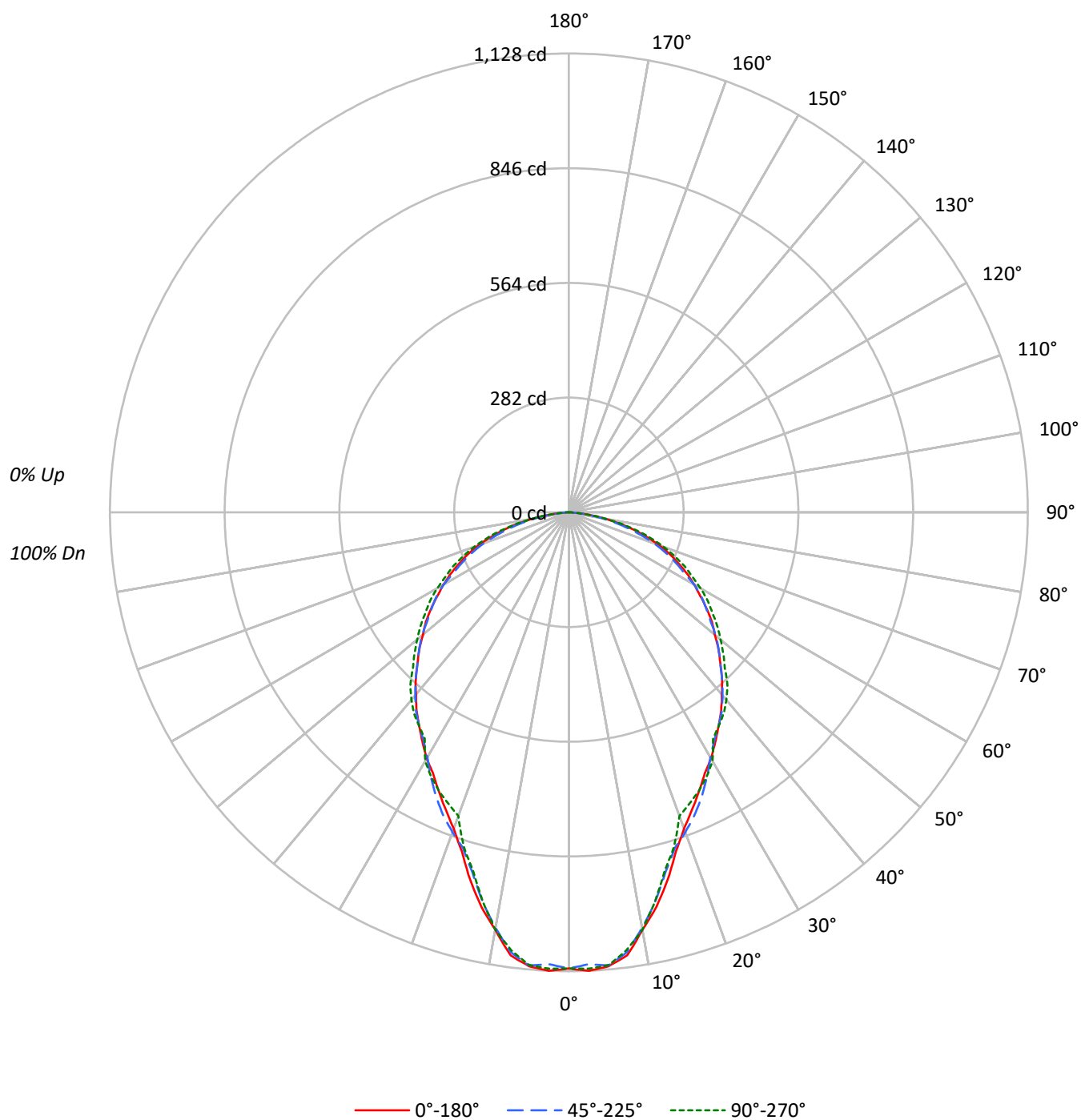
Lumens per Lamp: N/A
Luminaire Lumens: 2398.0 lumens
Efficiency: N/A
Efficacy: 68.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 35.1
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			
RW	70	50	30	10	70	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	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84		
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70		
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60		
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51		
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45		
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39		
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35		
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31		
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	35	30	28		
10	54	41	33	28	53	40	33	28	40	33	28	39	32	28	38	32	28	26		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3017	3017	3017
5°	3026	3021	3018
10°	2847	2834	2846
15°	2609	2552	2537
20°	2369	2396	2274
25°	2247	2292	2244
30°	2170	2161	2194
35°	2107	2107	2107
40°	2054	2063	2114
45°	2004	2001	2064
50°	1960	1975	2036
55°	1939	1932	2019
60°	1914	1911	2009
65°	1890	1831	1997
70°	1854	1748	1945
75°	1716	1552	1801
80°	1392	1265	1427
85°	883	794	775



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.1	4.3
10°-20°	260.4	10.9
20°-30°	351.6	14.7
30°-40°	402.7	16.8
40°-50°	412.4	17.2
50°-60°	374.2	15.6
60°-70°	292.1	12.2
70°-80°	165.7	6.9
80°-90°	34.8	1.5
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°	716.1	29.9
0°-40°	1118.8	46.7
0°-60°	1905.5	79.5
0°-90°	2398.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2398.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1121	1121	1121	1121	1121	
5°	1120	1107	1118	1121	1117	105
15°	936	939	916	921	911	262
25°	757	767	772	753	756	349
35°	641	643	641	642	641	402
45°	526	531	526	548	542	407
55°	413	413	412	426	430	369
65°	297	290	288	301	314	294
75°	165	153	149	158	173	173
85°	29	26	26	24	25	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1121.3	1121.3	1121.3	1121.3	1121.3
2.5°	1128.3	1119.5	1112.0	1124.2	1123.0
5°	1120.1	1107.3	1118.4	1120.7	1117.2
7.5°	1098.5	1090.4	1091.0	1086.3	1085.7
10°	1042.0	1046.6	1037.3	1045.5	1041.4
12.5°	993.6	996.5	980.2	983.7	979.0
15°	936.4	939.4	916.0	920.7	910.8
17.5°	874.1	884.5	865.3	871.1	860.6
20°	827.4	836.2	836.7	827.4	794.2
22.5°	790.7	799.4	806.4	778.4	774.9
25°	756.9	766.8	772.0	753.4	755.7
27.5°	723.0	734.1	734.1	738.2	732.9
30°	698.5	703.2	695.6	710.8	706.1
32.5°	669.4	671.1	664.7	675.8	659.5
35°	641.4	642.6	641.4	642.0	641.4
37.5°	614.6	611.7	616.9	613.4	624.5
40°	584.8	584.8	587.2	593.0	601.8
42.5°	557.4	559.8	556.9	573.2	576.7
45°	526.5	530.6	525.9	547.5	542.3
47.5°	498.5	500.3	499.1	513.7	514.9
50°	468.2	470.6	471.7	484.5	486.3
52.5°	443.1	442.6	438.5	457.1	460.1
55°	413.4	412.8	411.7	426.2	430.3
57.5°	383.1	383.7	386.6	394.8	404.7
60°	355.7	352.8	355.1	365.0	373.2
62.5°	327.7	322.4	317.2	333.5	341.1
65°	296.8	290.4	287.5	300.9	313.7
67.5°	268.2	257.7	256.0	265.3	280.5
70°	235.6	222.7	222.2	229.2	247.2
72.5°	199.4	188.3	185.4	194.8	211.1
75°	165.0	152.8	149.3	158.0	173.2
77.5°	127.7	117.8	115.5	120.1	132.4
80°	89.8	84.0	81.6	83.4	92.1
82.5°	56.6	52.5	51.3	50.7	55.4
85°	28.6	25.7	25.7	23.9	25.1
87.5°	8.7	8.2	7.6	5.8	6.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)