

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: P485060

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-3HI-50-120-EDD-90**

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: P485060
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-12-4-INS-89BC-LD4-3HI-50-120-EDD-90
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

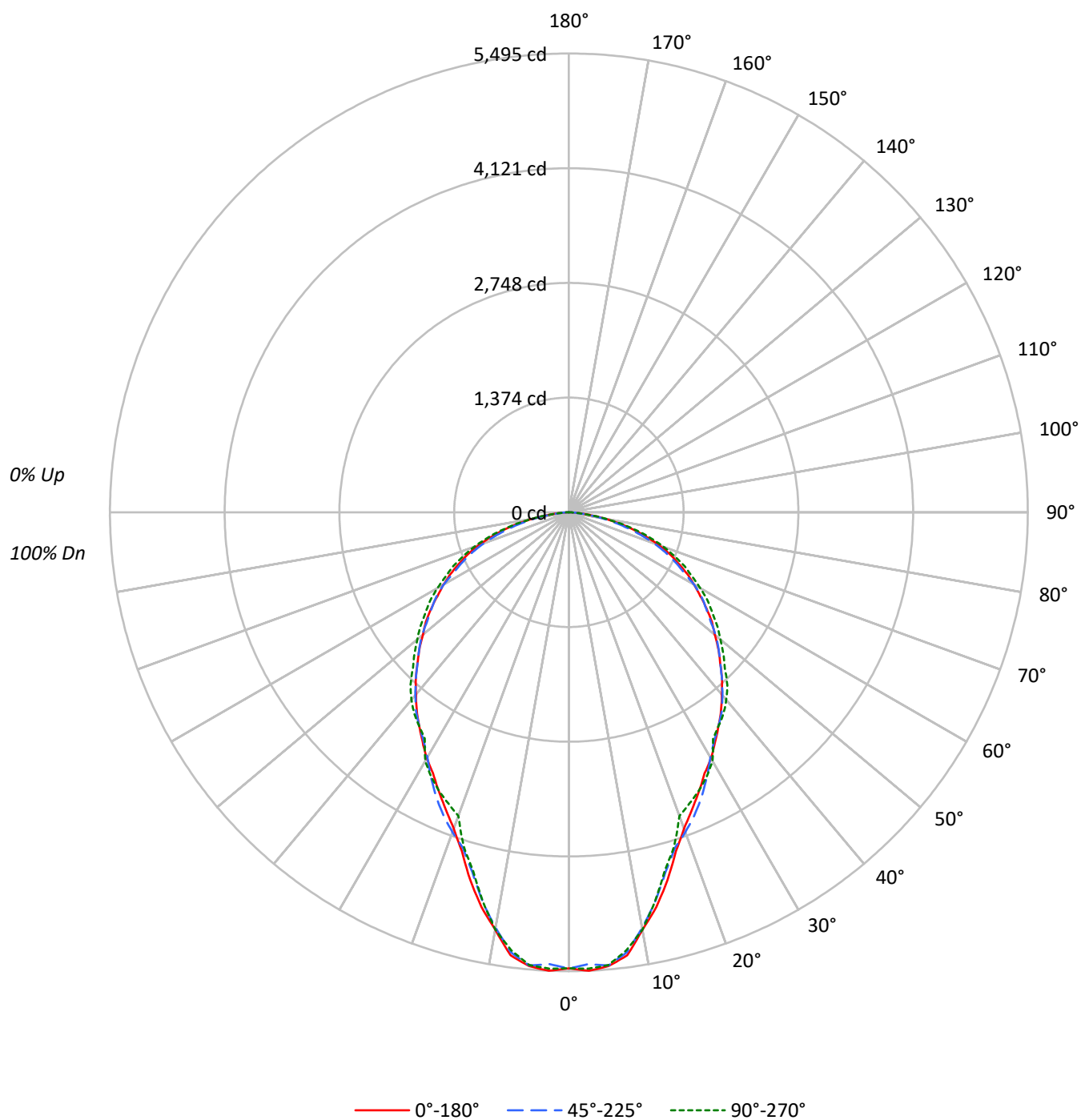
Lumens per Lamp: N/A
Luminaire Lumens: 11679.3 lumens
Efficiency: N/A
Efficacy: 88.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 132
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					0
RW	70	50	30	10	70	50	30	10		50	30	10		50	30	10		50	30	10
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	109	104	100	96	106	102	98	95		98	95	92		94	91	89		90	88	86
2	99	91	84	79	97	89	83	78		86	81	76		82	78	74		79	76	73
3	91	80	72	66	88	79	71	65		76	69	64		73	67	63		70	66	62
4	83	71	63	56	81	70	62	56		67	60	55		65	59	54		63	58	53
5	77	64	55	48	75	63	54	48		61	53	48		59	52	47		57	51	47
6	71	58	49	43	69	57	48	42		55	48	42		53	47	42		52	46	41
7	66	53	44	38	64	52	44	38		50	43	37		49	42	37		47	41	37
8	61	48	40	34	60	47	39	34		46	39	34		45	38	33		44	38	33
9	58	44	36	31	56	44	36	31		43	35	30		41	35	30		40	35	30
10	54	41	33	28	53	40	33	28		40	33	28		39	32	28		38	32	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14696	14696	14696
5°	14737	14713	14698
10°	13867	13805	13859
15°	12706	12429	12358
20°	11540	11670	11077
25°	10945	11164	10928
30°	10572	10527	10686
35°	10262	10262	10262
40°	10006	10046	10295
45°	9759	9748	10051
50°	9547	9618	9916
55°	9446	9407	9833
60°	9323	9308	9782
65°	9204	8915	9729
70°	9027	8513	9474
75°	8356	7559	8770
80°	6777	6161	6953
85°	4298	3859	3770



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	507.2	4.3
10°-20°	1268.1	10.9
20°-30°	1712.5	14.7
30°-40°	1961.1	16.8
40°-50°	2008.8	17.2
50°-60°	1822.7	15.6
60°-70°	1422.6	12.2
70°-80°	806.9	6.9
80°-90°	169.4	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°	3487.8	29.9
0°-40°	5449.0	46.7
0°-60°	9280.5	79.5
0°-90°	11679.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11679.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5461	5461	5461	5461	5461	
5°	5456	5393	5447	5458	5441	510
15°	4561	4575	4462	4484	4436	1275
25°	3686	3734	3760	3669	3680	1701
35°	3124	3130	3124	3127	3124	1957
45°	2564	2584	2562	2667	2641	1983
55°	2014	2011	2005	2076	2096	1799
65°	1446	1414	1400	1465	1528	1433
75°	804	744	727	770	844	841
85°	139	125	125	116	122	184
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5461.1	5461.1	5461.1	5461.1	5461.1
2.5°	5495.2	5452.6	5415.7	5475.3	5469.7
5°	5455.5	5393.0	5446.9	5458.3	5441.3
7.5°	5350.4	5310.6	5313.5	5290.8	5287.9
10°	5074.9	5097.6	5052.2	5092.0	5072.1
12.5°	4839.2	4853.4	4773.9	4790.9	4768.2
15°	4560.9	4575.1	4461.5	4484.2	4435.9
17.5°	4257.0	4308.1	4214.4	4242.8	4191.7
20°	4029.8	4072.4	4075.3	4029.8	3868.0
22.5°	3850.9	3893.5	3927.6	3791.3	3774.2
25°	3686.2	3734.5	3760.0	3669.2	3680.5
27.5°	3521.5	3575.4	3575.4	3595.3	3569.8
30°	3402.2	3424.9	3388.0	3461.8	3439.1
32.5°	3260.2	3268.7	3237.5	3291.5	3211.9
35°	3123.9	3129.6	3123.9	3126.7	3123.9
37.5°	2993.3	2979.1	3004.6	2987.6	3041.5
40°	2848.4	2848.4	2859.8	2888.2	2930.8
42.5°	2715.0	2726.3	2712.1	2791.6	2808.7
45°	2564.4	2584.3	2561.6	2666.7	2641.1
47.5°	2428.1	2436.6	2431.0	2502.0	2507.6
50°	2280.4	2291.8	2297.5	2360.0	2368.5
52.5°	2158.3	2155.5	2135.6	2226.5	2240.7
55°	2013.5	2010.7	2005.0	2076.0	2095.9
57.5°	1865.8	1868.7	1882.9	1922.6	1970.9
60°	1732.3	1718.1	1729.5	1777.8	1817.5
62.5°	1596.0	1570.5	1544.9	1624.4	1661.3
65°	1445.5	1414.3	1400.1	1465.4	1527.9
67.5°	1306.4	1255.2	1246.7	1292.2	1366.0
70°	1147.3	1084.8	1082.0	1116.1	1204.1
72.5°	971.2	917.3	903.1	948.5	1028.0
75°	803.7	744.1	727.0	769.6	843.5
77.5°	621.9	573.7	562.3	585.0	644.7
80°	437.3	408.9	397.6	406.1	448.7
82.5°	275.5	255.6	249.9	247.1	269.8
85°	139.2	125.0	125.0	116.4	122.1
87.5°	42.6	39.8	36.9	28.4	31.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)