

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: P487087

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-5LO-40-120-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: P487087
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-24-4-INS-89BC-LD4-5LO-40-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

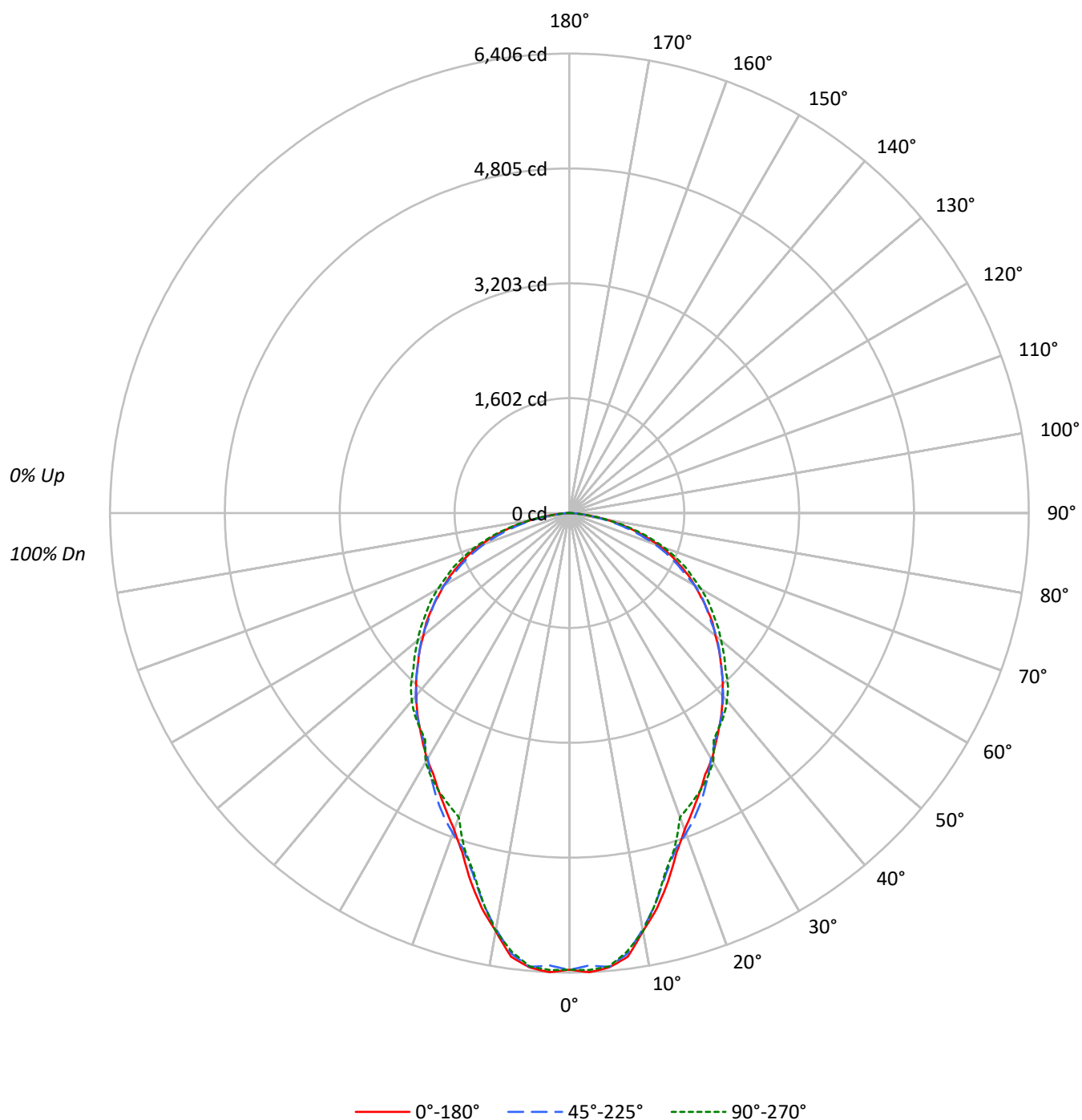
Lumens per Lamp: N/A
Luminaire Lumens: 13615.7 lumens
Efficiency: N/A
Efficacy: 116.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 117
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°	8566	8566	8566
5°	8590	8576	8568
10°	8083	8047	8079
15°	7406	7245	7204
20°	6727	6803	6457
25°	6380	6508	6370
30°	6162	6136	6229
35°	5982	5982	5982
40°	5833	5856	6001
45°	5689	5682	5859
50°	5565	5606	5780
55°	5506	5483	5731
60°	5435	5426	5702
65°	5365	5196	5671
70°	5262	4962	5522
75°	4871	4406	5112
80°	3951	3591	4053
85°	2504	2249	2198



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	591.3	4.3
10°-20°	1478.3	10.9
20°-30°	1996.5	14.7
30°-40°	2286.3	16.8
40°-50°	2341.9	17.2
50°-60°	2124.9	15.6
60°-70°	1658.5	12.2
70°-80°	940.6	6.9
80°-90°	197.4	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°	4066.1	29.9
0°-40°	6352.4	46.7
0°-60°	10819.2	79.5
0°-90°	13615.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13615.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6367	6367	6367	6367	6367	
5°	6360	6287	6350	6363	6343	594
15°	5317	5334	5201	5228	5171	1486
25°	4297	4354	4383	4278	4291	1983
35°	3642	3648	3642	3645	3642	2281
45°	2990	3013	2986	3109	3079	2311
55°	2347	2344	2337	2420	2443	2098
65°	1685	1649	1632	1708	1781	1670
75°	937	867	848	897	983	980
85°	162	146	146	136	142	214
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6366.6	6366.6	6366.6	6366.6	6366.6
2.5°	6406.3	6356.7	6313.6	6383.1	6376.5
5°	6360.0	6287.1	6350.0	6363.3	6343.4
7.5°	6237.5	6191.1	6194.4	6167.9	6164.6
10°	5916.3	5942.8	5889.8	5936.2	5913.0
12.5°	5641.5	5658.1	5565.4	5585.3	5558.8
15°	5317.1	5333.6	5201.2	5227.7	5171.4
17.5°	4962.8	5022.4	4913.2	4946.3	4886.7
20°	4698.0	4747.6	4750.9	4698.0	4509.3
22.5°	4489.4	4539.1	4578.8	4419.9	4400.0
25°	4297.4	4353.6	4383.4	4277.5	4290.7
27.5°	4105.3	4168.2	4168.2	4191.4	4161.6
30°	3966.3	3992.8	3949.7	4035.8	4009.3
32.5°	3800.8	3810.7	3774.3	3837.2	3744.5
35°	3641.8	3648.5	3641.8	3645.1	3641.8
37.5°	3489.5	3473.0	3502.8	3482.9	3545.8
40°	3320.7	3320.7	3333.9	3367.0	3416.7
42.5°	3165.1	3178.3	3161.8	3254.5	3274.3
45°	2989.6	3012.8	2986.3	3108.8	3079.0
47.5°	2830.7	2840.6	2834.0	2916.8	2923.4
50°	2658.5	2671.8	2678.4	2751.2	2761.2
52.5°	2516.2	2512.9	2489.7	2595.6	2612.2
55°	2347.3	2344.0	2337.4	2420.2	2443.3
57.5°	2175.2	2178.5	2195.0	2241.4	2297.7
60°	2019.6	2003.0	2016.3	2072.5	2118.9
62.5°	1860.6	1830.8	1801.1	1893.8	1936.8
65°	1685.2	1648.8	1632.2	1708.4	1781.2
67.5°	1522.9	1463.4	1453.4	1506.4	1592.5
70°	1337.5	1264.7	1261.4	1301.1	1403.8
72.5°	1132.3	1069.4	1052.8	1105.8	1198.5
75°	936.9	867.4	847.6	897.2	983.3
77.5°	725.1	668.8	655.5	682.0	751.5
80°	509.9	476.7	463.5	473.4	523.1
82.5°	321.1	298.0	291.3	288.0	314.5
85°	162.2	145.7	145.7	135.7	142.4
87.5°	49.7	46.4	43.0	33.1	36.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)