

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: P487029

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-3STD-50-120-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: P487029
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-LD4-3STD-50-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

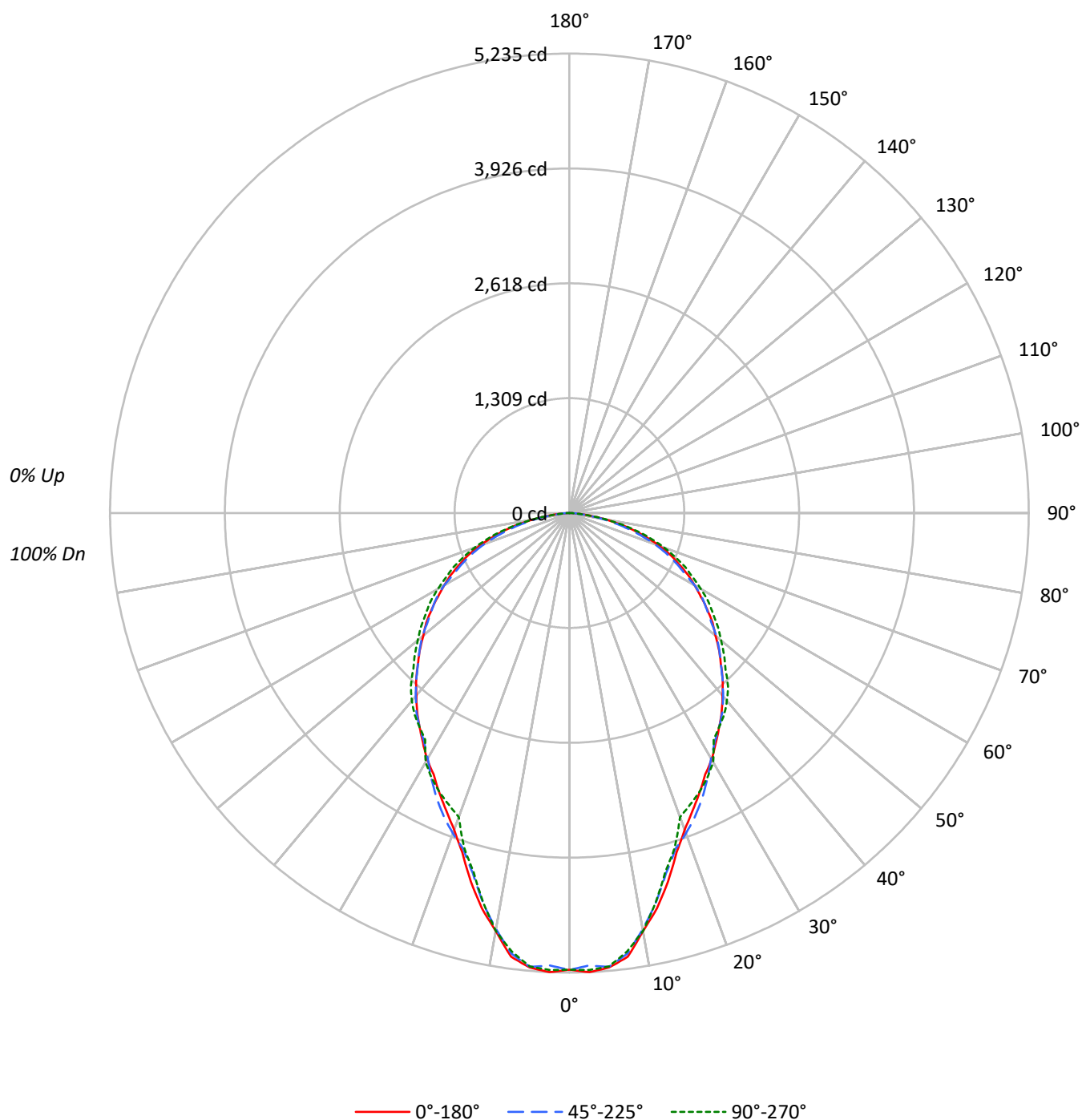
Lumens per Lamp: N/A
Luminaire Lumens: 11125.8 lumens
Efficiency: N/A
Efficacy: 111.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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°	7000	7000	7000
5°	7019	7008	7001
10°	6605	6575	6601
15°	6052	5920	5886
20°	5497	5559	5276
25°	5213	5317	5205
30°	5035	5014	5090
35°	4888	4888	4888
40°	4766	4785	4904
45°	4648	4643	4787
50°	4547	4581	4723
55°	4499	4480	4683
60°	4441	4433	4659
65°	4384	4246	4634
70°	4299	4055	4513
75°	3980	3601	4177
80°	3228	2934	3312
85°	2047	1837	1795



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	483.2	4.3
10°-20°	1208.0	10.9
20°-30°	1631.4	14.7
30°-40°	1868.2	16.8
40°-50°	1913.6	17.2
50°-60°	1736.3	15.6
60°-70°	1355.2	12.2
70°-80°	768.6	6.9
80°-90°	161.3	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°	3322.6	29.9
0°-40°	5190.7	46.7
0°-60°	8840.7	79.5
0°-90°	11125.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11125.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5202	5202	5202	5202	5202	
5°	5197	5137	5189	5200	5183	485
15°	4345	4358	4250	4272	4226	1214
25°	3512	3558	3582	3495	3506	1620
35°	2976	2981	2976	2979	2976	1864
45°	2443	2462	2440	2540	2516	1889
55°	1918	1915	1910	1978	1996	1714
65°	1377	1347	1334	1396	1456	1365
75°	766	709	693	733	804	801
85°	133	119	119	111	116	175
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5202.3	5202.3	5202.3	5202.3	5202.3
2.5°	5234.8	5194.2	5159.0	5215.9	5210.4
5°	5196.9	5137.4	5188.8	5199.6	5183.4
7.5°	5096.8	5059.0	5061.7	5040.0	5037.3
10°	4834.4	4856.1	4812.8	4850.6	4831.7
12.5°	4609.9	4623.4	4547.6	4563.9	4542.2
15°	4344.7	4358.3	4250.1	4271.7	4225.7
17.5°	4055.3	4104.0	4014.7	4041.7	3993.1
20°	3838.9	3879.4	3882.1	3838.9	3684.6
22.5°	3668.4	3709.0	3741.5	3611.6	3595.4
25°	3511.5	3557.5	3581.8	3495.3	3506.1
27.5°	3354.6	3406.0	3406.0	3424.9	3400.6
30°	3241.0	3262.6	3227.4	3297.8	3276.1
32.5°	3105.7	3113.8	3084.1	3135.5	3059.7
35°	2975.9	2981.3	2975.9	2978.6	2975.9
37.5°	2851.4	2837.9	2862.2	2846.0	2897.4
40°	2713.4	2713.4	2724.3	2751.3	2791.9
42.5°	2586.3	2597.1	2583.6	2659.3	2675.6
45°	2442.9	2461.8	2440.2	2540.3	2515.9
47.5°	2313.0	2321.2	2315.8	2383.4	2388.8
50°	2172.4	2183.2	2188.6	2248.1	2256.2
52.5°	2056.0	2053.3	2034.4	2121.0	2134.5
55°	1918.1	1915.4	1910.0	1977.6	1996.5
57.5°	1777.4	1780.1	1793.6	1831.5	1877.5
60°	1650.2	1636.7	1647.5	1693.5	1731.4
62.5°	1520.4	1496.0	1471.7	1547.4	1582.6
65°	1377.0	1347.2	1333.7	1395.9	1455.5
67.5°	1244.4	1195.8	1187.6	1230.9	1301.3
70°	1092.9	1033.4	1030.7	1063.2	1147.1
72.5°	925.2	873.8	860.3	903.6	979.3
75°	765.6	708.8	692.6	733.1	803.5
77.5°	592.5	546.5	535.7	557.3	614.1
80°	416.6	389.6	378.7	386.9	427.4
82.5°	262.4	243.5	238.1	235.4	257.0
85°	132.6	119.0	119.0	110.9	116.3
87.5°	40.6	37.9	35.2	27.1	29.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)