

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: P487017

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-3LO-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: P487017
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-LD4-3LO-50-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

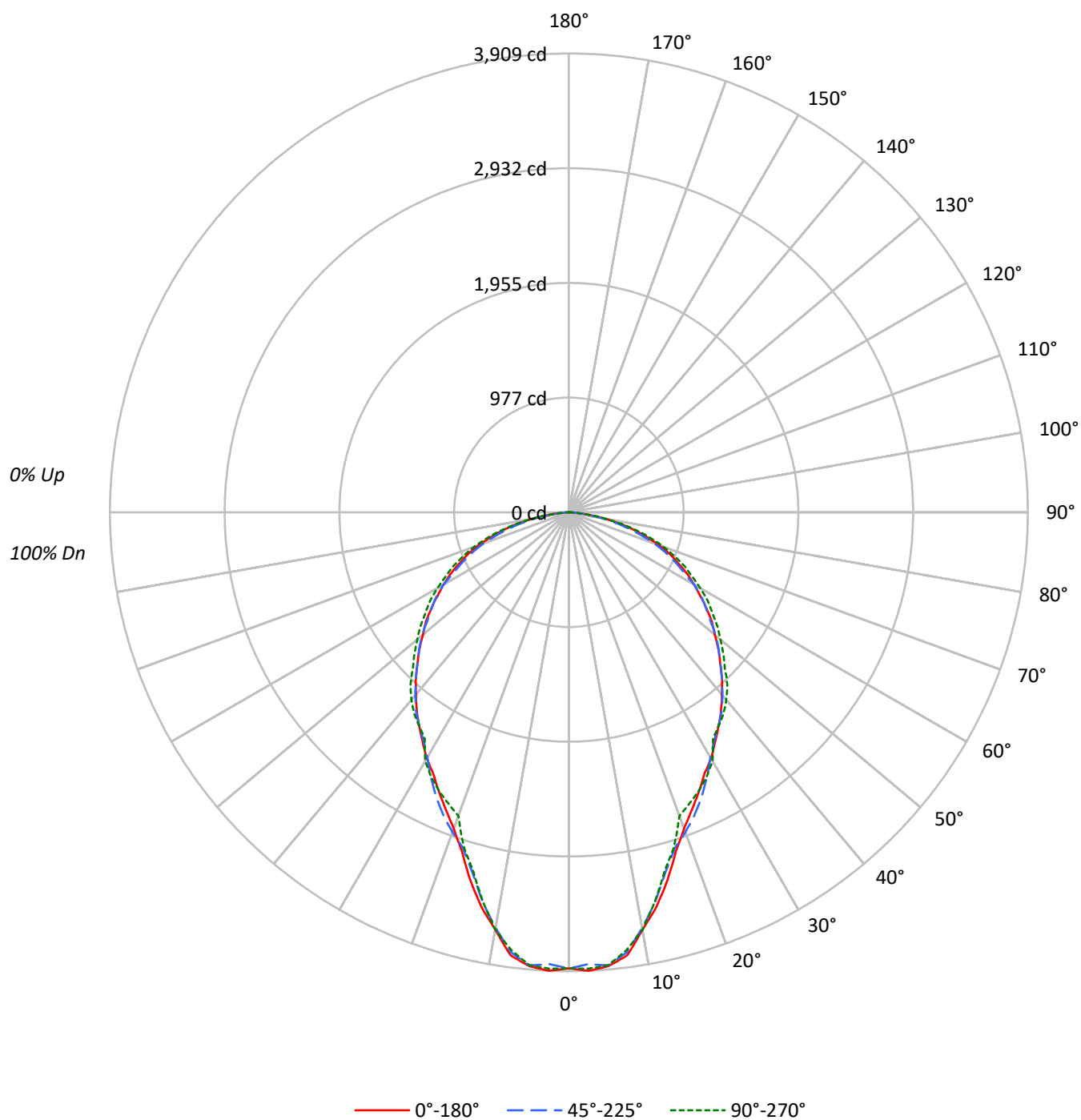
Lumens per Lamp: N/A
Luminaire Lumens: 8308.0 lumens
Efficiency: N/A
Efficacy: 118.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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°	5227	5227	5227
5°	5241	5233	5228
10°	4932	4910	4929
15°	4519	4421	4395
20°	4105	4151	3940
25°	3893	3971	3887
30°	3760	3744	3801
35°	3650	3650	3650
40°	3559	3573	3662
45°	3471	3467	3575
50°	3396	3421	3527
55°	3360	3346	3497
60°	3316	3311	3479
65°	3274	3171	3460
70°	3210	3028	3369
75°	2972	2689	3119
80°	2411	2191	2473
85°	1528	1372	1342



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	360.8	4.3
10°-20°	902.0	10.9
20°-30°	1218.2	14.7
30°-40°	1395.0	16.8
40°-50°	1428.9	17.2
50°-60°	1296.6	15.6
60°-70°	1011.9	12.2
70°-80°	574.0	6.9
80°-90°	120.5	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°	2481.1	29.9
0°-40°	3876.1	46.7
0°-60°	6601.6	79.5
0°-90°	8308.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8308.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3885	3885	3885	3885	3885	
5°	3881	3836	3875	3883	3871	362
15°	3244	3254	3174	3190	3156	907
25°	2622	2656	2675	2610	2618	1210
35°	2222	2226	2222	2224	2222	1392
45°	1824	1838	1822	1897	1879	1410
55°	1432	1430	1426	1477	1491	1280
65°	1028	1006	996	1042	1087	1019
75°	572	529	517	548	600	598
85°	99	89	89	83	87	131
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3884.8	3884.8	3884.8	3884.8	3884.8
2.5°	3909.0	3878.7	3852.4	3894.9	3890.8
5°	3880.7	3836.3	3874.7	3882.7	3870.6
7.5°	3806.0	3777.7	3779.7	3763.5	3761.5
10°	3610.0	3626.2	3593.9	3622.1	3608.0
12.5°	3442.3	3452.4	3395.9	3408.0	3391.8
15°	3244.4	3254.5	3173.7	3189.8	3155.5
17.5°	3028.2	3064.6	2997.9	3018.1	2981.7
20°	2866.6	2896.9	2898.9	2866.6	2751.4
22.5°	2739.3	2769.6	2793.9	2696.9	2684.8
25°	2622.2	2656.5	2674.7	2610.0	2618.1
27.5°	2505.0	2543.4	2543.4	2557.5	2539.3
30°	2420.1	2436.3	2410.0	2462.6	2446.4
32.5°	2319.1	2325.2	2303.0	2341.4	2284.8
35°	2222.2	2226.2	2222.2	2224.2	2222.2
37.5°	2129.2	2119.1	2137.3	2125.2	2163.6
40°	2026.2	2026.2	2034.3	2054.5	2084.8
42.5°	1931.3	1939.3	1929.2	1985.8	1997.9
45°	1824.2	1838.3	1822.2	1896.9	1878.7
47.5°	1727.2	1733.3	1729.3	1779.8	1783.8
50°	1622.2	1630.3	1634.3	1678.7	1684.8
52.5°	1535.3	1533.3	1519.2	1583.8	1593.9
55°	1432.3	1430.3	1426.2	1476.7	1490.9
57.5°	1327.2	1329.3	1339.4	1367.6	1402.0
60°	1232.3	1222.2	1230.3	1264.6	1292.9
62.5°	1135.3	1117.1	1099.0	1155.5	1181.8
65°	1028.3	1006.0	995.9	1042.4	1086.8
67.5°	929.3	892.9	886.8	919.2	971.7
70°	816.1	771.7	769.7	793.9	856.5
72.5°	690.9	652.5	642.4	674.7	731.3
75°	571.7	529.3	517.2	547.5	600.0
77.5°	442.4	408.1	400.0	416.2	458.6
80°	311.1	290.9	282.8	288.9	319.2
82.5°	196.0	181.8	177.8	175.8	191.9
85°	99.0	88.9	88.9	82.8	86.9
87.5°	30.3	28.3	26.3	20.2	22.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)