

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: P487036

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-4HI-35-120-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: P487036
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-LD4-4HI-35-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

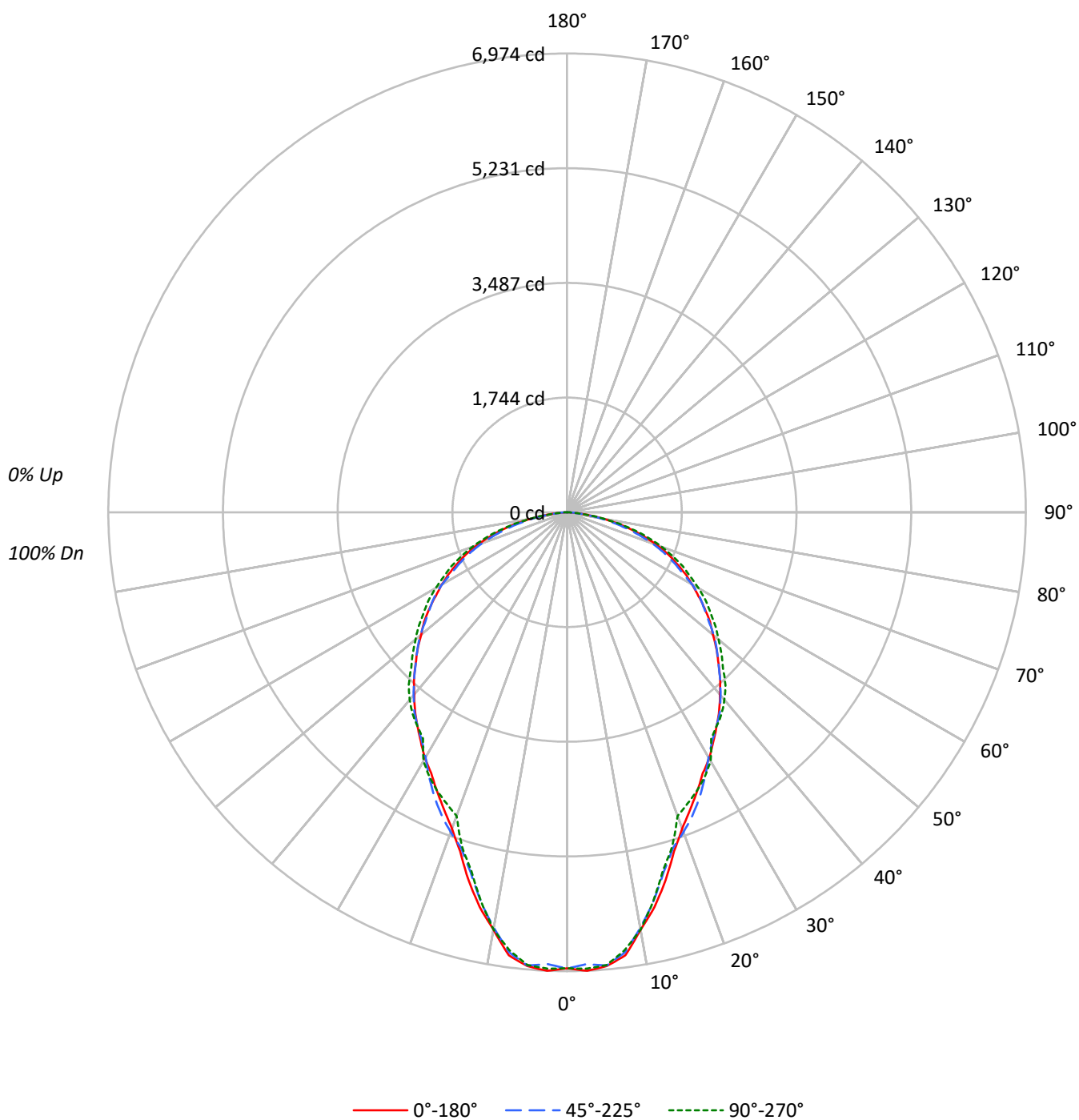
Lumens per Lamp: N/A
Luminaire Lumens: 14822.9 lumens
Efficiency: N/A
Efficacy: 84.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 176
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°	9326	9326	9326
5°	9352	9337	9327
10°	8800	8760	8795
15°	8063	7887	7842
20°	7323	7406	7029
25°	6945	7085	6935
30°	6708	6680	6781
35°	6512	6512	6512
40°	6350	6375	6533
45°	6193	6186	6378
50°	6058	6104	6292
55°	5994	5969	6240
60°	5916	5907	6208
65°	5841	5657	6174
70°	5728	5402	6012
75°	5303	4797	5565
80°	4301	3910	4413
85°	2726	2448	2393



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	643.7	4.3
10°-20°	1609.4	10.9
20°-30°	2173.5	14.7
30°-40°	2488.9	16.8
40°-50°	2549.5	17.2
50°-60°	2313.3	15.6
60°-70°	1805.5	12.2
70°-80°	1024.0	6.9
80°-90°	215.0	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°	4426.6	29.9
0°-40°	6915.6	46.7
0°-60°	11778.4	79.5
0°-90°	14822.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14822.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6931	6931	6931	6931	6931	
5°	6924	6845	6913	6928	6906	647
15°	5788	5806	5662	5691	5630	1618
25°	4678	4740	4772	4657	4671	2159
35°	3965	3972	3965	3968	3965	2484
45°	3255	3280	3251	3384	3352	2516
55°	2555	2552	2545	2635	2660	2284
65°	1835	1795	1777	1860	1939	1818
75°	1020	944	923	977	1070	1067
85°	177	159	159	148	155	233
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6931.1	6931.1	6931.1	6931.1	6931.1
2.5°	6974.3	6920.3	6873.4	6949.1	6941.9
5°	6923.9	6844.6	6913.0	6927.5	6905.8
7.5°	6790.5	6740.0	6743.6	6714.8	6711.2
10°	6440.9	6469.7	6412.0	6462.5	6437.3
12.5°	6141.7	6159.7	6058.8	6080.5	6051.6
15°	5788.5	5806.5	5662.4	5691.2	5629.9
17.5°	5402.8	5467.7	5348.8	5384.8	5319.9
20°	5114.5	5168.6	5172.2	5114.5	4909.1
22.5°	4887.4	4941.5	4984.7	4811.7	4790.1
25°	4678.4	4739.7	4772.1	4656.8	4671.2
27.5°	4469.3	4537.8	4537.8	4563.0	4530.6
30°	4317.9	4346.8	4299.9	4393.6	4364.8
32.5°	4137.7	4148.5	4108.9	4177.4	4076.5
35°	3964.7	3971.9	3964.7	3968.3	3964.7
37.5°	3798.9	3780.9	3813.3	3791.7	3860.2
40°	3615.1	3615.1	3629.5	3665.6	3719.6
42.5°	3445.7	3460.1	3442.1	3543.0	3564.7
45°	3254.7	3279.9	3251.1	3384.4	3352.0
47.5°	3081.7	3092.5	3085.3	3175.4	3182.6
50°	2894.3	2908.7	2915.9	2995.2	3006.0
52.5°	2739.3	2735.7	2710.4	2825.8	2843.8
55°	2555.4	2551.8	2544.6	2634.7	2660.0
57.5°	2368.0	2371.6	2389.6	2440.1	2501.4
60°	2198.6	2180.6	2195.0	2256.3	2306.8
62.5°	2025.6	1993.2	1960.7	2061.7	2108.5
65°	1834.6	1794.9	1776.9	1859.8	1939.1
67.5°	1658.0	1593.1	1582.3	1640.0	1733.7
70°	1456.1	1376.8	1373.2	1416.5	1528.2
72.5°	1232.7	1164.2	1146.2	1203.8	1304.8
75°	1020.0	944.3	922.7	976.8	1070.5
77.5°	789.3	728.1	713.7	742.5	818.2
80°	555.1	519.0	504.6	515.4	569.5
82.5°	349.6	324.4	317.2	313.6	342.4
85°	176.6	158.6	158.6	147.8	155.0
87.5°	54.1	50.5	46.9	36.0	39.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)