

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: P485085

Luminaire Tested: **ORLG-12-4-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: P485085
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-LD4-3STD-50-120-EDD
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

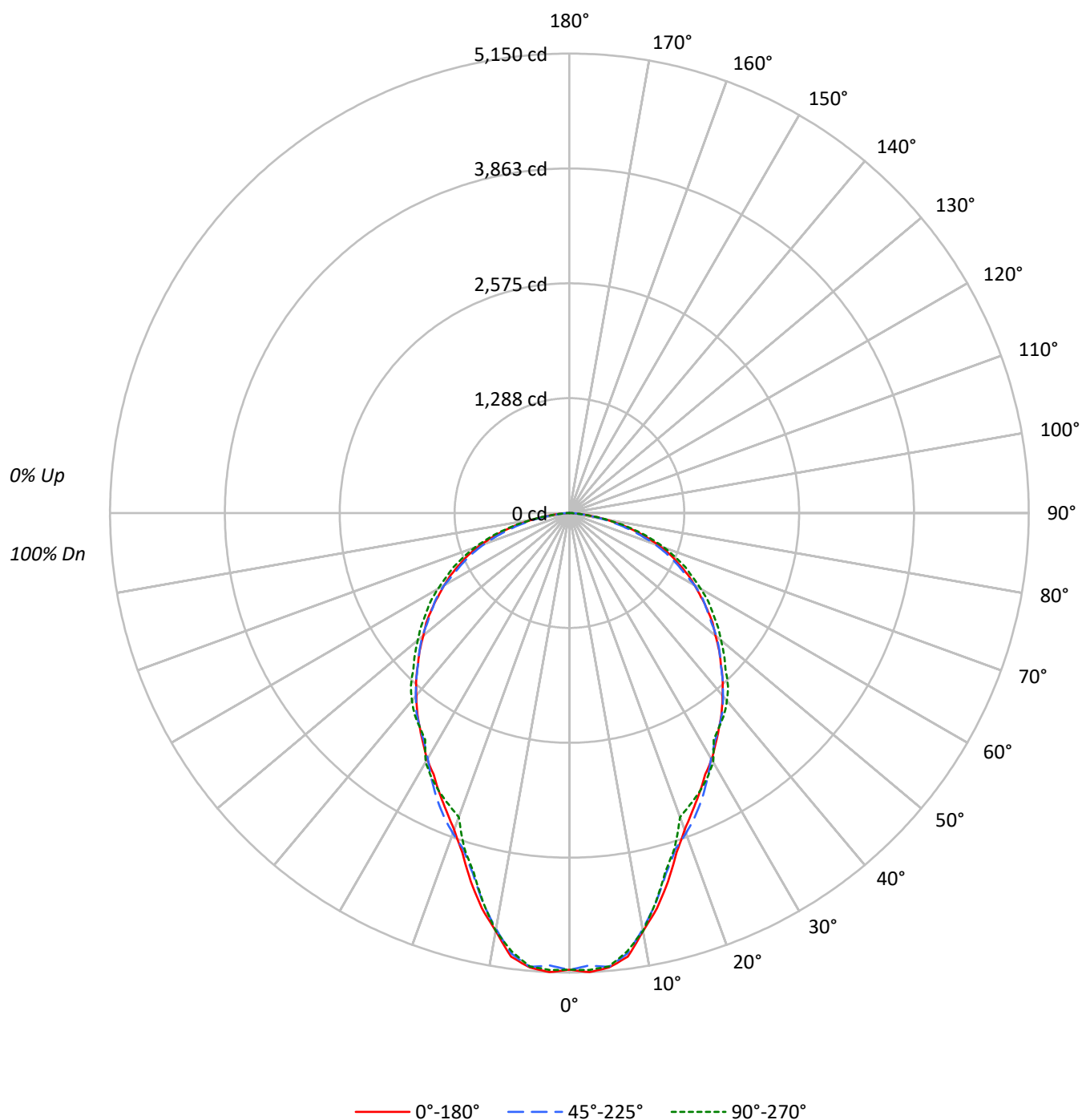
Lumens per Lamp: N/A
Luminaire Lumens: 10944.7 lumens
Efficiency: N/A
Efficacy: 109.6 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	13772	13772	13772
5°	13810	13788	13774
10°	12995	12937	12988
15°	11907	11648	11581
20°	10814	10936	10380
25°	10256	10462	10241
30°	9907	9865	10014
35°	9617	9617	9617
40°	9377	9414	9648
45°	9145	9135	9419
50°	8946	9013	9292
55°	8853	8815	9214
60°	8737	8723	9167
65°	8625	8354	9117
70°	8460	7977	8878
75°	7830	7084	8218
80°	6351	5774	6516
85°	4026	3616	3532



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	475.3	4.3
10°-20°	1188.3	10.9
20°-30°	1604.8	14.7
30°-40°	1837.8	16.8
40°-50°	1882.5	17.2
50°-60°	1708.1	15.6
60°-70°	1333.1	12.2
70°-80°	756.1	6.9
80°-90°	158.7	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°	3268.5	29.9
0°-40°	5106.2	46.7
0°-60°	8696.8	79.5
0°-90°	10944.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10944.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5118	5118	5118	5118	5118	
5°	5112	5054	5104	5115	5099	478
15°	4274	4287	4181	4202	4157	1195
25°	3454	3500	3524	3438	3449	1594
35°	2927	2933	2927	2930	2927	1834
45°	2403	2422	2400	2499	2475	1858
55°	1887	1884	1879	1945	1964	1686
65°	1355	1325	1312	1373	1432	1342
75°	753	697	681	721	790	788
85°	130	117	117	109	114	172
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5117.7	5117.7	5117.7	5117.7	5117.7
2.5°	5149.6	5109.7	5075.1	5131.0	5125.6
5°	5112.3	5053.8	5104.3	5115.0	5099.0
7.5°	5013.9	4976.6	4979.3	4958.0	4955.3
10°	4755.7	4777.0	4734.4	4771.7	4753.1
12.5°	4534.8	4548.1	4473.6	4489.6	4468.3
15°	4274.0	4287.3	4180.9	4202.2	4156.9
17.5°	3989.3	4037.2	3949.3	3976.0	3928.1
20°	3776.4	3816.3	3818.9	3776.4	3624.7
22.5°	3608.7	3648.6	3680.6	3552.8	3536.8
25°	3454.3	3499.6	3523.5	3438.4	3449.0
27.5°	3300.0	3350.6	3350.6	3369.2	3345.2
30°	3188.2	3209.5	3174.9	3244.1	3222.8
32.5°	3055.2	3063.1	3033.9	3084.4	3009.9
35°	2927.4	2932.7	2927.4	2930.1	2927.4
37.5°	2805.0	2791.7	2815.6	2799.7	2850.2
40°	2669.3	2669.3	2679.9	2706.5	2746.4
42.5°	2544.2	2554.8	2541.5	2616.0	2632.0
45°	2403.1	2421.8	2400.5	2498.9	2475.0
47.5°	2275.4	2283.4	2278.1	2344.6	2349.9
50°	2137.0	2147.7	2153.0	2211.5	2219.5
52.5°	2022.6	2019.9	2001.3	2086.4	2099.8
55°	1886.9	1884.2	1878.9	1945.4	1964.0
57.5°	1748.5	1751.1	1764.4	1801.7	1846.9
60°	1623.4	1610.1	1620.7	1666.0	1703.2
62.5°	1495.6	1471.7	1447.7	1522.3	1556.9
65°	1354.6	1325.3	1312.0	1373.2	1431.8
67.5°	1224.2	1176.3	1168.3	1210.9	1280.1
70°	1075.2	1016.6	1013.9	1045.9	1128.4
72.5°	910.2	859.6	846.3	888.9	963.4
75°	753.1	697.3	681.3	721.2	790.4
77.5°	582.8	537.6	526.9	548.2	604.1
80°	409.8	383.2	372.6	380.6	420.5
82.5°	258.1	239.5	234.2	231.5	252.8
85°	130.4	117.1	117.1	109.1	114.4
87.5°	39.9	37.3	34.6	26.6	29.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)