

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: P487002

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-3HI-40-120-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: P487002
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-LD4-3HI-40-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

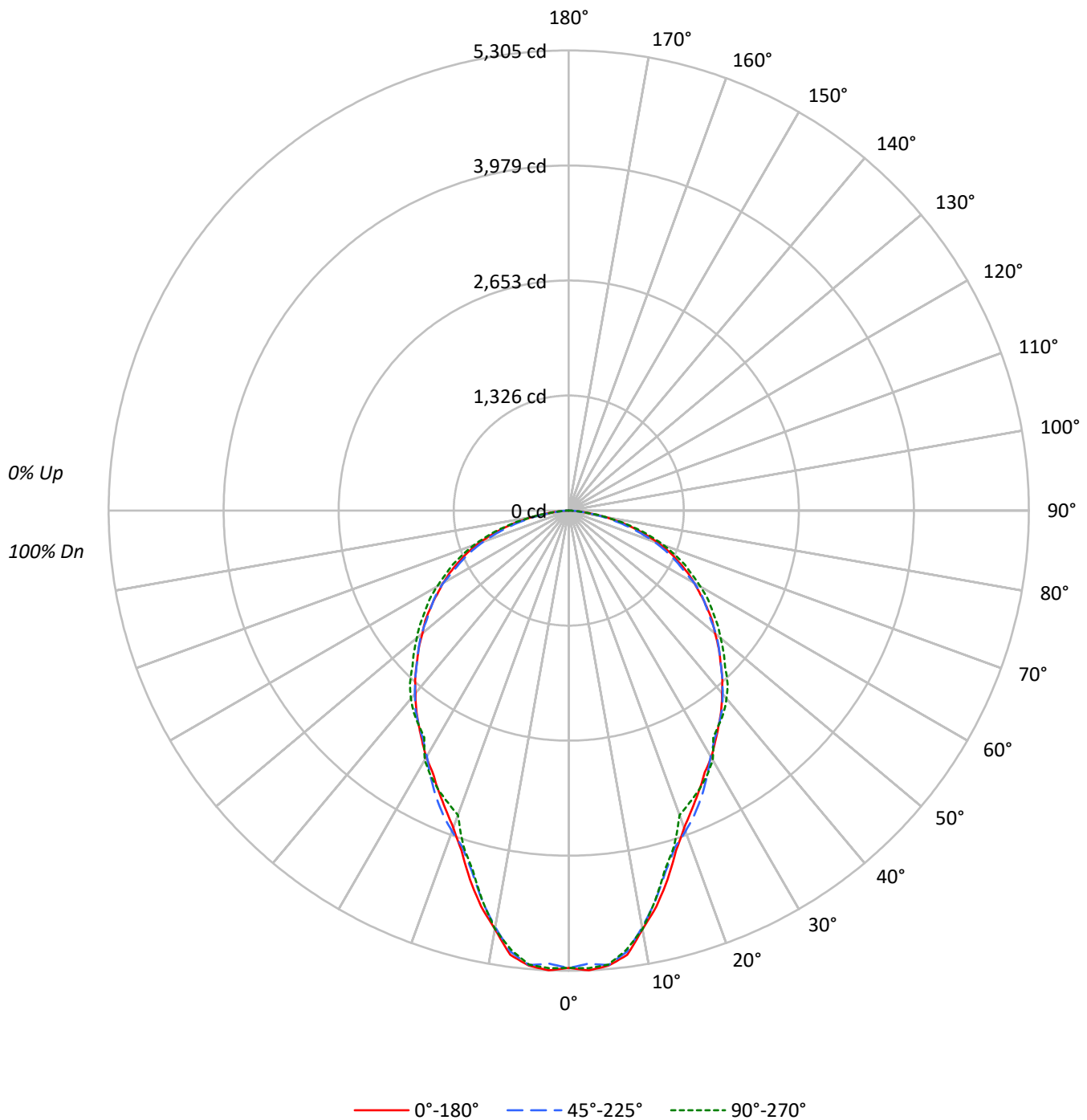
Lumens per Lamp: N/A
Luminaire Lumens: 11275.0 lumens
Efficiency: N/A
Efficacy: 85.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 132
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°	7094	7094	7094
5°	7113	7102	7095
10°	6694	6664	6690
15°	6133	6000	5965
20°	5570	5633	5347
25°	5283	5389	5275
30°	5103	5081	5158
35°	4954	4954	4954
40°	4830	4849	4969
45°	4711	4705	4852
50°	4608	4643	4786
55°	4560	4541	4746
60°	4500	4493	4722
65°	4443	4303	4696
70°	4357	4109	4573
75°	4034	3648	4233
80°	3271	2974	3357
85°	2073	1862	1820



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	489.7	4.3
10°-20°	1224.2	10.9
20°-30°	1653.3	14.7
30°-40°	1893.2	16.8
40°-50°	1939.3	17.2
50°-60°	1759.6	15.6
60°-70°	1373.3	12.2
70°-80°	778.9	6.9
80°-90°	163.5	1.4
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°	3367.1	29.9
0°-40°	5260.3	46.7
0°-60°	8959.2	79.5
0°-90°	11275.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11275.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5272	5272	5272	5272	5272	
5°	5267	5206	5258	5269	5253	492
15°	4403	4417	4307	4329	4282	1231
25°	3559	3605	3630	3542	3553	1642
35°	3016	3021	3016	3018	3016	1889
45°	2476	2495	2473	2574	2550	1914
55°	1944	1941	1936	2004	2023	1737
65°	1396	1365	1352	1415	1475	1383
75°	776	718	702	743	814	812
85°	134	121	121	112	118	177
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5272.1	5272.1	5272.1	5272.1	5272.1
2.5°	5305.0	5263.9	5228.2	5285.8	5280.3
5°	5266.6	5206.3	5258.4	5269.4	5252.9
7.5°	5165.2	5126.8	5129.5	5107.6	5104.9
10°	4899.2	4921.2	4877.3	4915.7	4896.5
12.5°	4671.7	4685.4	4608.6	4625.1	4603.1
15°	4403.0	4416.7	4307.1	4329.0	4282.4
17.5°	4109.7	4159.0	4068.5	4096.0	4046.6
20°	3890.3	3931.5	3934.2	3890.3	3734.1
22.5°	3717.6	3758.7	3791.6	3660.0	3643.6
25°	3558.6	3605.2	3629.9	3542.1	3553.1
27.5°	3399.6	3451.7	3451.7	3470.9	3446.2
30°	3284.4	3306.4	3270.7	3342.0	3320.1
32.5°	3147.4	3155.6	3125.4	3177.5	3100.7
35°	3015.8	3021.2	3015.8	3018.5	3015.8
37.5°	2889.6	2875.9	2900.6	2884.2	2936.3
40°	2749.8	2749.8	2760.8	2788.2	2829.3
42.5°	2621.0	2631.9	2618.2	2695.0	2711.4
45°	2475.7	2494.9	2472.9	2574.4	2549.7
47.5°	2344.1	2352.3	2346.8	2415.3	2420.8
50°	2201.5	2212.5	2218.0	2278.3	2286.5
52.5°	2083.6	2080.9	2061.7	2149.4	2163.1
55°	1943.8	1941.1	1935.6	2004.1	2023.3
57.5°	1801.2	1804.0	1817.7	1856.1	1902.7
60°	1672.4	1658.7	1669.6	1716.2	1754.6
62.5°	1540.8	1516.1	1491.4	1568.2	1603.8
65°	1395.5	1365.3	1351.6	1414.7	1475.0
67.5°	1261.1	1211.8	1203.6	1247.4	1318.7
70°	1107.6	1047.3	1044.5	1077.4	1162.4
72.5°	937.6	885.5	871.8	915.7	992.5
75°	775.9	718.3	701.8	743.0	814.3
77.5°	600.4	553.8	542.8	564.8	622.3
80°	422.2	394.8	383.8	392.0	433.2
82.5°	265.9	246.7	241.3	238.5	260.5
85°	134.3	120.6	120.6	112.4	117.9
87.5°	41.1	38.4	35.6	27.4	30.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)