

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: P485051

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-3HI-20-120-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: P485051
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-LD4-3HI-20-120-EDD
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

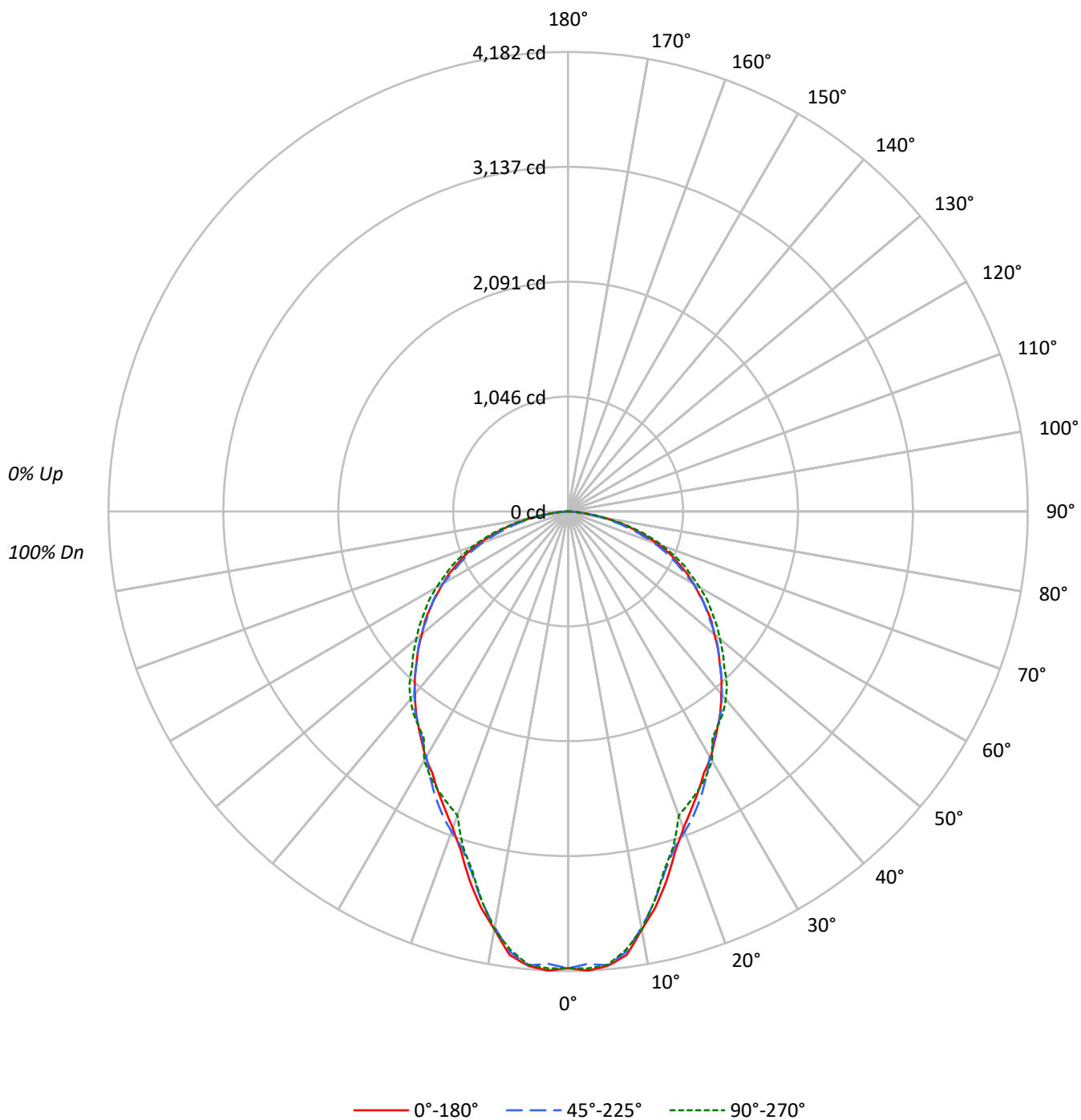
Lumens per Lamp: N/A
Luminaire Lumens: 8887.5 lumens
Efficiency: N/A
Efficacy: 67.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	11183	11183	11183
5°	11214	11196	11185
10°	10552	10505	10547
15°	9669	9458	9404
20°	8781	8881	8429
25°	8329	8495	8316
30°	8045	8011	8132
35°	7809	7809	7809
40°	7614	7645	7834
45°	7426	7418	7649
50°	7265	7319	7545
55°	7188	7158	7483
60°	7094	7083	7444
65°	7004	6784	7403
70°	6869	6478	7209
75°	6359	5752	6673
80°	5157	4688	5291
85°	3270	2936	2868



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	386.0	4.3
10°-20°	965.0	10.9
20°-30°	1303.2	14.7
30°-40°	1492.3	16.8
40°-50°	1528.6	17.2
50°-60°	1387.0	15.6
60°-70°	1082.5	12.2
70°-80°	614.0	6.9
80°-90°	128.9	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°	2654.1	29.9
0°-40°	4146.4	46.7
0°-60°	7062.1	79.5
0°-90°	8887.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8887.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4156	4156	4156	4156	4156	
5°	4151	4104	4145	4154	4141	388
15°	3471	3482	3395	3412	3376	970
25°	2805	2842	2861	2792	2801	1294
35°	2377	2382	2377	2379	2377	1489
45°	1951	1967	1949	2029	2010	1509
55°	1532	1530	1526	1580	1595	1369
65°	1100	1076	1065	1115	1163	1090
75°	612	566	553	586	642	640
85°	106	95	95	89	93	140
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4155.7	4155.7	4155.7	4155.7	4155.7
2.5°	4181.7	4149.2	4121.1	4166.5	4162.2
5°	4151.4	4103.9	4144.9	4153.6	4140.6
7.5°	4071.4	4041.2	4043.3	4026.1	4023.9
10°	3861.8	3879.1	3844.5	3874.8	3859.7
12.5°	3682.4	3693.3	3632.7	3645.7	3628.4
15°	3470.7	3481.5	3395.0	3412.3	3375.6
17.5°	3239.4	3278.3	3207.0	3228.6	3189.7
20°	3066.5	3099.0	3101.1	3066.5	2943.4
22.5°	2930.4	2962.8	2988.7	2885.0	2872.1
25°	2805.1	2841.8	2861.2	2792.1	2800.7
27.5°	2679.7	2720.8	2720.8	2735.9	2716.5
30°	2589.0	2606.2	2578.1	2634.3	2617.0
32.5°	2480.9	2487.4	2463.6	2504.7	2444.2
35°	2377.2	2381.5	2377.2	2379.3	2377.2
37.5°	2277.8	2267.0	2286.4	2273.4	2314.5
40°	2167.5	2167.5	2176.2	2197.8	2230.2
42.5°	2066.0	2074.6	2063.8	2124.3	2137.3
45°	1951.4	1966.6	1949.3	2029.2	2009.8
47.5°	1847.7	1854.2	1849.9	1903.9	1908.2
50°	1735.3	1744.0	1748.3	1795.8	1802.3
52.5°	1642.4	1640.2	1625.1	1694.3	1705.1
55°	1532.2	1530.0	1525.7	1579.7	1594.9
57.5°	1419.8	1422.0	1432.8	1463.0	1499.8
60°	1318.2	1307.4	1316.1	1352.8	1383.1
62.5°	1214.5	1195.1	1175.6	1236.1	1264.2
65°	1100.0	1076.2	1065.4	1115.1	1162.7
67.5°	994.1	955.2	948.7	983.3	1039.5
70°	873.1	825.5	823.4	849.3	916.3
72.5°	739.1	698.0	687.2	721.8	782.3
75°	611.6	566.2	553.2	585.6	641.8
77.5°	473.3	436.5	427.9	445.2	490.6
80°	332.8	311.2	302.5	309.0	341.4
82.5°	209.6	194.5	190.2	188.0	205.3
85°	105.9	95.1	95.1	88.6	92.9
87.5°	32.4	30.3	28.1	21.6	23.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)