

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: P485018

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-2HI-30-120-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: P485018
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-LD4-2HI-30-120-EDD-90
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

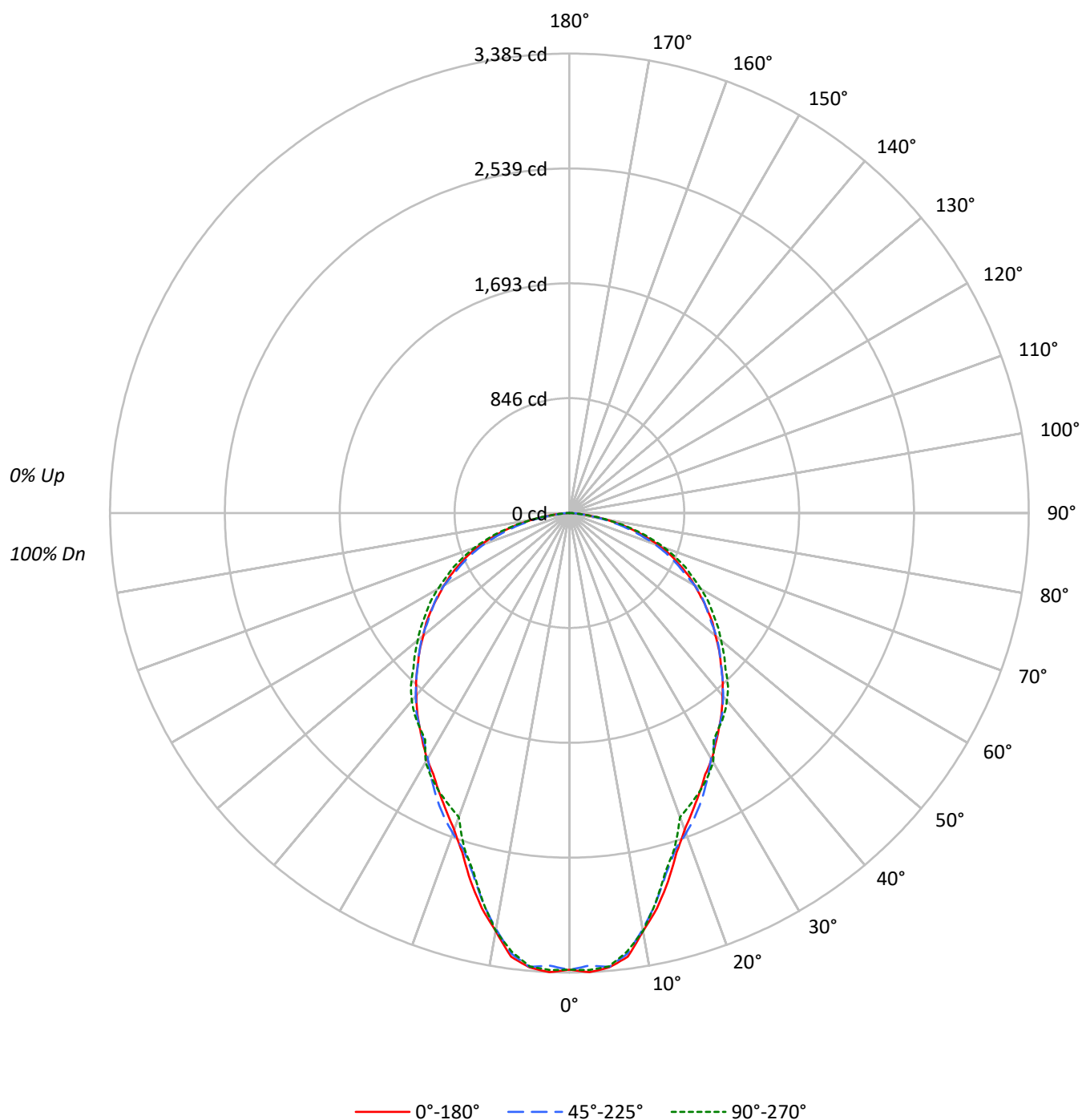
Lumens per Lamp: N/A
Luminaire Lumens: 7194.7 lumens
Efficiency: N/A
Efficacy: 81.8 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 88
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		0
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		100
1	109	104	100	96	106	102	98	95	98	95	92		94	91	89		84
2	99	91	84	79	97	89	83	78	86	81	76		82	78	74		70
3	91	80	72	66	88	79	71	65	76	69	64		73	67	63		60
4	83	71	63	56	81	70	62	56	67	60	55		65	59	54		51
5	77	64	55	48	75	63	54	48	61	53	48		59	52	47		45
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		39
7	66	53	44	38	64	52	44	38	50	43	37		49	42	37		35
8	61	48	40	34	60	47	39	34	46	39	34		45	38	33		31
9	58	44	36	31	56	44	36	31	43	35	30		41	35	30		28
10	54	41	33	28	53	40	33	28	40	33	28		39	32	28		26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9053	9053	9053
5°	9078	9064	9054
10°	8543	8504	8538
15°	7827	7657	7613
20°	7109	7189	6823
25°	6742	6877	6732
30°	6512	6485	6583
35°	6322	6322	6322
40°	6164	6189	6342
45°	6012	6005	6192
50°	5881	5925	6108
55°	5819	5795	6057
60°	5744	5734	6026
65°	5670	5492	5993
70°	5561	5244	5836
75°	5148	4657	5402
80°	4175	3795	4283
85°	2646	2377	2322



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	312.5	4.3
10°-20°	781.2	10.9
20°-30°	1055.0	14.7
30°-40°	1208.1	16.8
40°-50°	1237.5	17.2
50°-60°	1122.8	15.6
60°-70°	876.3	12.2
70°-80°	497.1	6.9
80°-90°	104.3	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°	2148.6	29.9
0°-40°	3356.7	46.7
0°-60°	5717.0	79.5
0°-90°	7194.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7194.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3364	3364	3364	3364	3364	
5°	3361	3322	3355	3362	3352	314
15°	2810	2818	2748	2762	2733	785
25°	2271	2300	2316	2260	2267	1048
35°	1924	1928	1924	1926	1924	1205
45°	1580	1592	1578	1643	1627	1221
55°	1240	1239	1235	1279	1291	1108
65°	890	871	862	903	941	883
75°	495	458	448	474	520	518
85°	86	77	77	72	75	113
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3364.2	3364.2	3364.2	3364.2	3364.2
2.5°	3385.2	3358.9	3336.2	3372.9	3369.4
5°	3360.7	3322.2	3355.4	3362.4	3351.9
7.5°	3296.0	3271.5	3273.2	3259.2	3257.5
10°	3126.3	3140.3	3112.3	3136.8	3124.5
12.5°	2981.1	2989.8	2940.8	2951.3	2937.3
15°	2809.6	2818.4	2748.4	2762.4	2732.6
17.5°	2622.4	2653.9	2596.2	2613.7	2582.2
20°	2482.5	2508.7	2510.5	2482.5	2382.7
22.5°	2372.2	2398.5	2419.5	2335.5	2325.0
25°	2270.8	2300.5	2316.3	2260.3	2267.3
27.5°	2169.3	2202.6	2202.6	2214.8	2199.1
30°	2095.8	2109.8	2087.1	2132.6	2118.6
32.5°	2008.4	2013.6	1994.4	2027.6	1978.6
35°	1924.4	1927.9	1924.4	1926.1	1924.4
37.5°	1843.9	1835.2	1850.9	1840.4	1873.7
40°	1754.7	1754.7	1761.7	1779.2	1805.4
42.5°	1672.5	1679.5	1670.7	1719.7	1730.2
45°	1579.7	1592.0	1578.0	1642.7	1627.0
47.5°	1495.8	1501.0	1497.5	1541.3	1544.8
50°	1404.8	1411.8	1415.3	1453.8	1459.0
52.5°	1329.6	1327.8	1315.6	1371.6	1380.3
55°	1240.4	1238.6	1235.1	1278.8	1291.1
57.5°	1149.4	1151.1	1159.9	1184.4	1214.1
60°	1067.2	1058.4	1065.4	1095.2	1119.6
62.5°	983.2	967.4	951.7	1000.7	1023.4
65°	890.5	871.2	862.5	902.7	941.2
67.5°	804.7	773.3	768.0	796.0	841.5
70°	706.8	668.3	666.5	687.5	741.8
72.5°	598.3	565.1	556.3	584.3	633.3
75°	495.1	458.4	447.9	474.1	519.6
77.5°	383.1	353.4	346.4	360.4	397.1
80°	269.4	251.9	244.9	250.2	276.4
82.5°	169.7	157.5	154.0	152.2	166.2
85°	85.7	77.0	77.0	71.7	75.2
87.5°	26.2	24.5	22.7	17.5	19.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)