

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: P486973

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-2LO-27-120-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: P486973
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-LD4-2LO-27-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

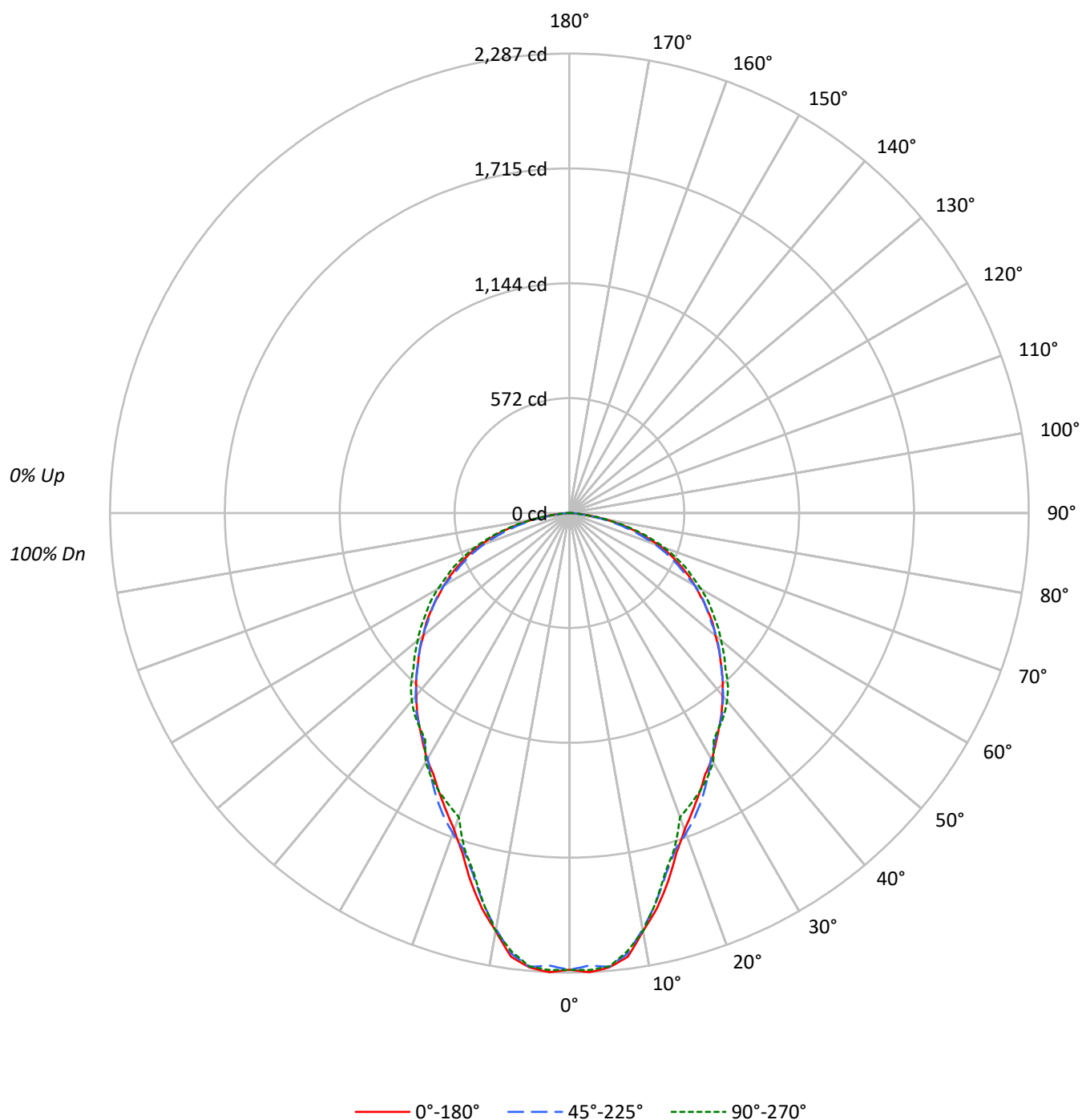
Lumens per Lamp: N/A
Luminaire Lumens: 4861.2 lumens
Efficiency: N/A
Efficacy: 103.9 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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°	3058	3058	3058
5°	3067	3062	3059
10°	2886	2873	2884
15°	2644	2587	2572
20°	2402	2429	2305
25°	2278	2323	2274
30°	2200	2191	2224
35°	2136	2136	2136
40°	2082	2091	2143
45°	2031	2029	2092
50°	1987	2002	2063
55°	1966	1958	2046
60°	1940	1937	2036
65°	1916	1855	2025
70°	1878	1772	1972
75°	1739	1573	1825
80°	1410	1282	1447
85°	894	803	784



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	211.1	4.3
10°-20°	527.8	10.9
20°-30°	712.8	14.7
30°-40°	816.3	16.8
40°-50°	836.1	17.2
50°-60°	758.7	15.6
60°-70°	592.1	12.2
70°-80°	335.8	6.9
80°-90°	70.5	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°	1451.7	29.9
0°-40°	2268.0	46.7
0°-60°	3862.8	79.5
0°-90°	4861.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4861.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2273	2273	2273	2273	2273	
5°	2271	2245	2267	2272	2265	212
15°	1898	1904	1857	1866	1846	531
25°	1534	1554	1565	1527	1532	708
35°	1300	1303	1300	1301	1300	814
45°	1067	1076	1066	1110	1099	825
55°	838	837	834	864	872	749
65°	602	589	583	610	636	596
75°	334	310	303	320	351	350
85°	58	52	52	48	51	76
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2273.1	2273.1	2273.1	2273.1	2273.1
2.5°	2287.2	2269.5	2254.1	2279.0	2276.6
5°	2270.7	2244.7	2267.1	2271.9	2264.8
7.5°	2227.0	2210.4	2211.6	2202.1	2201.0
10°	2112.3	2121.8	2102.8	2119.4	2111.1
12.5°	2014.2	2020.1	1987.0	1994.1	1984.6
15°	1898.4	1904.3	1857.0	1866.4	1846.3
17.5°	1771.9	1793.2	1754.1	1766.0	1744.7
20°	1677.3	1695.0	1696.2	1677.3	1609.9
22.5°	1602.8	1620.6	1634.8	1578.0	1570.9
25°	1534.3	1554.4	1565.0	1527.2	1531.9
27.5°	1465.7	1488.2	1488.2	1496.5	1485.8
30°	1416.1	1425.5	1410.2	1440.9	1431.4
32.5°	1357.0	1360.5	1347.5	1370.0	1336.9
35°	1300.2	1302.6	1300.2	1301.4	1300.2
37.5°	1245.9	1240.0	1250.6	1243.5	1266.0
40°	1185.6	1185.6	1190.3	1202.1	1219.9
42.5°	1130.0	1134.8	1128.8	1161.9	1169.0
45°	1067.4	1075.7	1066.2	1109.9	1099.3
47.5°	1010.6	1014.2	1011.8	1041.4	1043.7
50°	949.2	953.9	956.3	982.3	985.8
52.5°	898.3	897.2	888.9	926.7	932.6
55°	838.1	836.9	834.5	864.1	872.3
57.5°	776.6	777.8	783.7	800.2	820.3
60°	721.0	715.1	719.9	740.0	756.5
62.5°	664.3	653.7	643.0	676.1	691.5
65°	601.7	588.7	582.7	609.9	635.9
67.5°	543.7	522.5	518.9	537.8	568.6
70°	477.5	451.5	450.4	464.5	501.2
72.5°	404.3	381.8	375.9	394.8	427.9
75°	334.5	309.7	302.6	320.3	351.1
77.5°	258.9	238.8	234.0	243.5	268.3
80°	182.0	170.2	165.5	169.0	186.8
82.5°	114.7	106.4	104.0	102.8	112.3
85°	57.9	52.0	52.0	48.5	50.8
87.5°	17.7	16.5	15.4	11.8	13.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)