

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: P486975

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-2LO-30-120-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: P486975
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-30-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

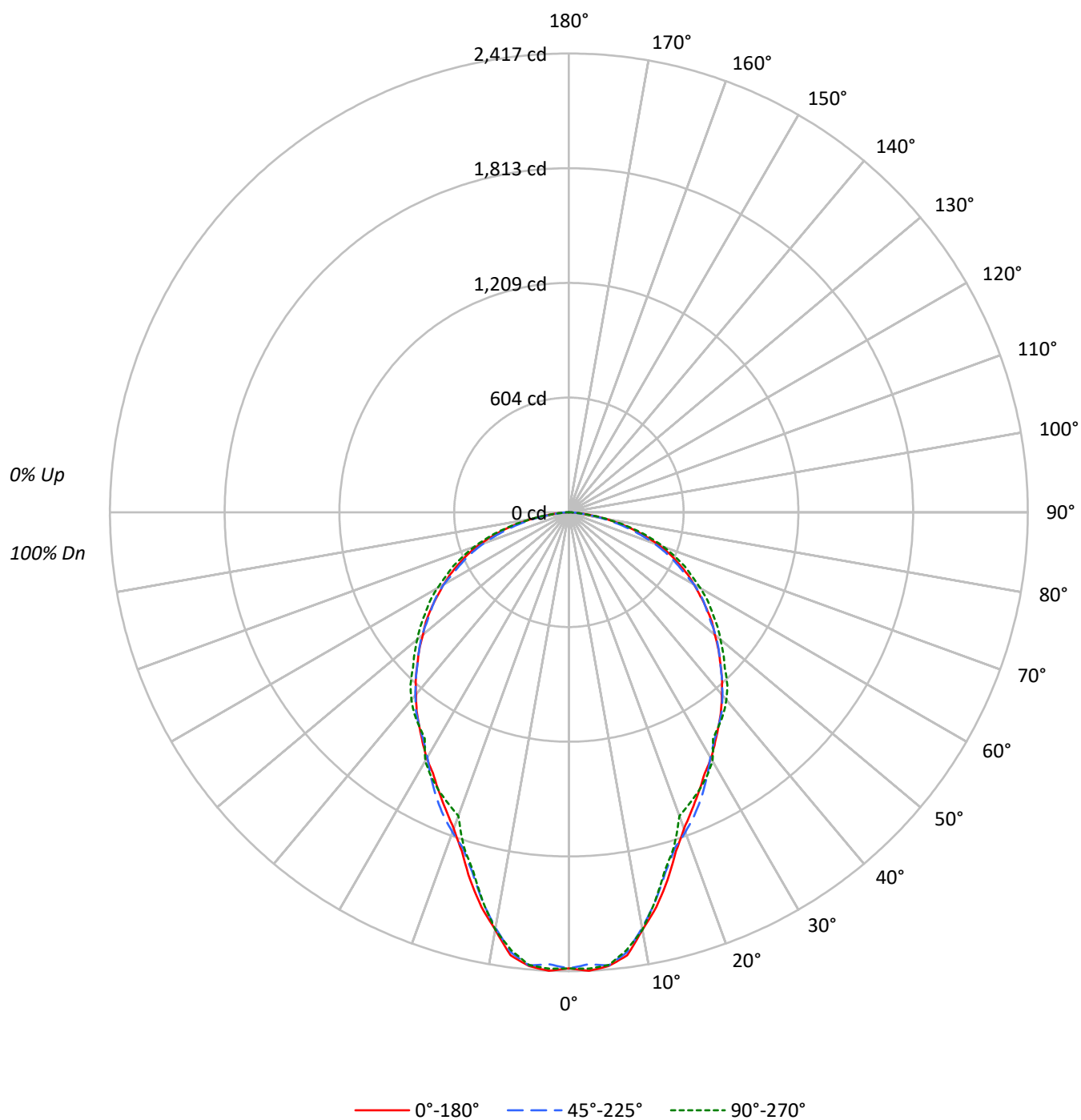
Lumens per Lamp: N/A
Luminaire Lumens: 5137.6 lumens
Efficiency: N/A
Efficacy: 109.8 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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				10			
RW	70	50	30	10	70	50	30	10	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	102	102	102	100		
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84		
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70		
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60		
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51		
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45		
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39		
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35		
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31		
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	35	30	28		
10	54	41	33	28	53	40	33	28	40	33	28	39	32	28	38	32	28	26		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3232	3232	3232
5°	3241	3236	3233
10°	3050	3036	3048
15°	2795	2734	2718
20°	2538	2567	2436
25°	2407	2456	2404
30°	2325	2316	2350
35°	2257	2257	2257
40°	2201	2210	2264
45°	2147	2144	2211
50°	2100	2115	2181
55°	2078	2069	2163
60°	2051	2047	2151
65°	2025	1961	2140
70°	1985	1873	2084
75°	1838	1663	1929
80°	1491	1355	1530
85°	945	849	829



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	223.1	4.3
10°-20°	557.8	10.9
20°-30°	753.3	14.7
30°-40°	862.7	16.8
40°-50°	883.7	17.2
50°-60°	801.8	15.6
60°-70°	625.8	12.2
70°-80°	354.9	6.9
80°-90°	74.5	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°	1534.3	29.9
0°-40°	2396.9	46.7
0°-60°	4082.4	79.5
0°-90°	5137.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5137.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2402	2402	2402	2402	2402	
5°	2400	2372	2396	2401	2394	224
15°	2006	2012	1963	1973	1951	561
25°	1622	1643	1654	1614	1619	748
35°	1374	1377	1374	1375	1374	861
45°	1128	1137	1127	1173	1162	872
55°	886	884	882	913	922	792
65°	636	622	616	645	672	630
75°	354	327	320	338	371	370
85°	61	55	55	51	54	81
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2402.3	2402.3	2402.3	2402.3	2402.3
2.5°	2417.3	2398.6	2382.3	2408.5	2406.0
5°	2399.8	2372.3	2396.1	2401.1	2393.6
7.5°	2353.6	2336.1	2337.3	2327.3	2326.1
10°	2232.4	2242.4	2222.4	2239.9	2231.2
12.5°	2128.7	2135.0	2100.0	2107.5	2097.5
15°	2006.3	2012.5	1962.6	1972.6	1951.3
17.5°	1872.6	1895.1	1853.9	1866.4	1843.9
20°	1772.7	1791.4	1792.7	1772.7	1701.5
22.5°	1694.0	1712.7	1727.7	1667.7	1660.2
25°	1621.5	1642.8	1654.0	1614.0	1619.0
27.5°	1549.1	1572.8	1572.8	1581.5	1570.3
30°	1496.6	1506.6	1490.4	1522.8	1512.8
32.5°	1434.1	1437.9	1424.1	1447.9	1412.9
35°	1374.2	1376.7	1374.2	1375.4	1374.2
37.5°	1316.7	1310.5	1321.7	1314.2	1337.9
40°	1253.0	1253.0	1258.0	1270.5	1289.2
42.5°	1194.3	1199.3	1193.0	1228.0	1235.5
45°	1128.1	1136.8	1126.8	1173.0	1161.8
47.5°	1068.1	1071.9	1069.4	1100.6	1103.1
50°	1003.1	1008.1	1010.6	1038.1	1041.9
52.5°	949.4	948.2	939.4	979.4	985.7
55°	885.7	884.5	882.0	913.2	921.9
57.5°	820.8	822.0	828.2	845.7	867.0
60°	762.0	755.8	760.8	782.0	799.5
62.5°	702.1	690.8	679.6	714.6	730.8
65°	635.9	622.1	615.9	644.6	672.1
67.5°	574.7	552.2	548.4	568.4	600.9
70°	504.7	477.2	476.0	491.0	529.7
72.5°	427.2	403.5	397.3	417.2	452.2
75°	353.5	327.3	319.8	338.5	371.0
77.5°	273.6	252.3	247.4	257.3	283.6
80°	192.4	179.9	174.9	178.6	197.4
82.5°	121.2	112.4	109.9	108.7	118.7
85°	61.2	55.0	55.0	51.2	53.7
87.5°	18.7	17.5	16.2	12.5	13.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)