

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: P485744

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-4HI-50-120-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: P485744
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-24-2-INS-89BC-LD4-4HI-50-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

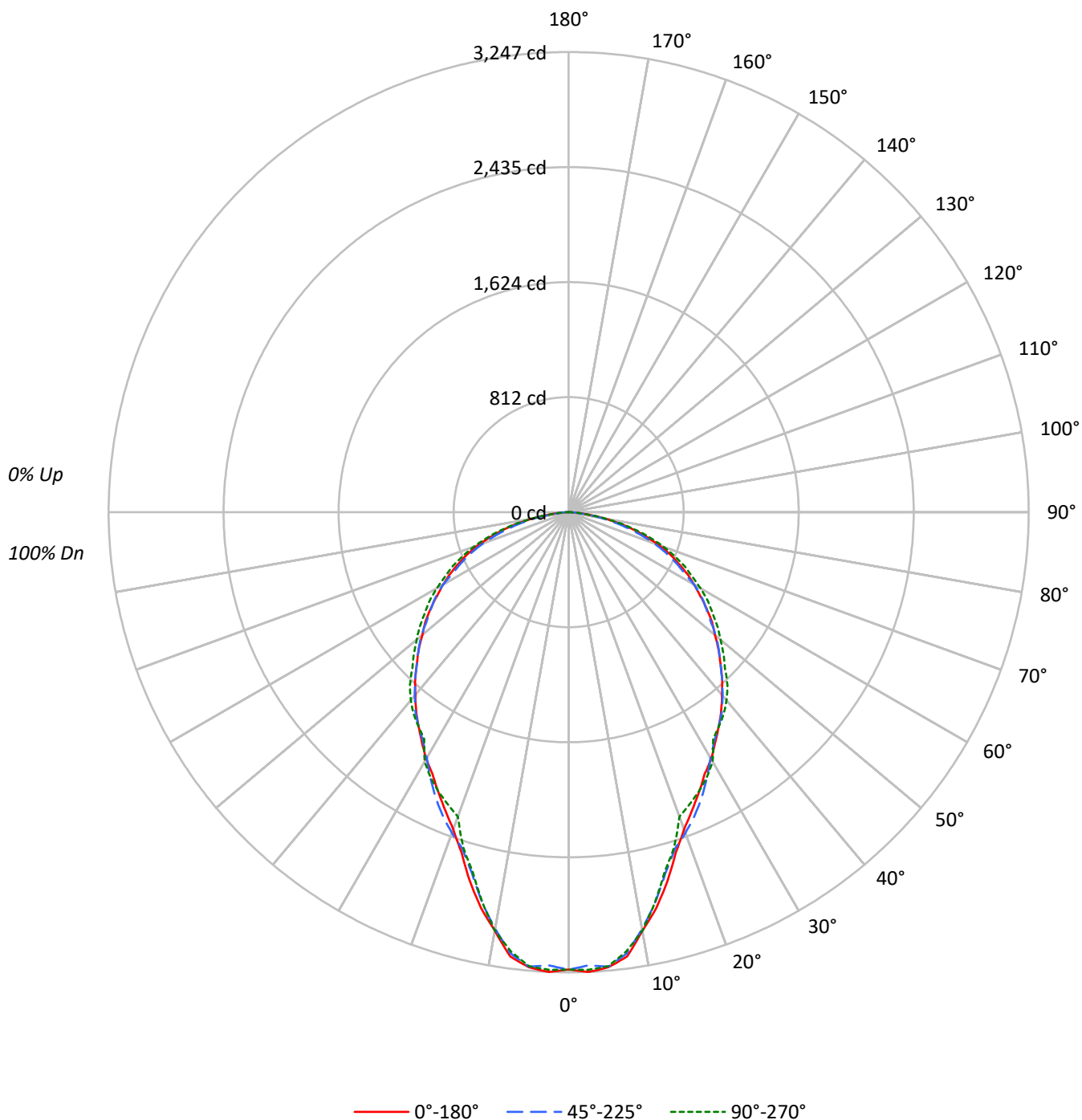
Lumens per Lamp: N/A
Luminaire Lumens: 6901.5 lumens
Efficiency: N/A
Efficacy: 78.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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		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°	8684	8684	8684
5°	8708	8695	8685
10°	8194	8158	8190
15°	7508	7345	7303
20°	6819	6896	6545
25°	6467	6597	6458
30°	6247	6221	6315
35°	6064	6064	6064
40°	5913	5936	6084
45°	5767	5761	5939
50°	5642	5683	5859
55°	5582	5559	5811
60°	5510	5500	5780
65°	5439	5268	5748
70°	5334	5031	5598
75°	4938	4467	5182
80°	4004	3640	4108
85°	2538	2279	2229



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	299.7	4.3
10°-20°	749.3	10.9
20°-30°	1012.0	14.7
30°-40°	1158.9	16.8
40°-50°	1187.0	17.2
50°-60°	1077.1	15.6
60°-70°	840.6	12.2
70°-80°	476.8	6.9
80°-90°	100.1	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°	2061.0	29.9
0°-40°	3219.9	46.7
0°-60°	5484.0	79.5
0°-90°	6901.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6901.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3227	3227	3227	3227	3227	
5°	3224	3187	3219	3225	3215	301
15°	2695	2704	2636	2650	2621	753
25°	2178	2207	2222	2168	2175	1005
35°	1846	1849	1846	1848	1846	1156
45°	1515	1527	1514	1576	1561	1172
55°	1190	1188	1185	1227	1238	1063
65°	854	836	827	866	903	847
75°	475	440	430	455	498	497
85°	82	74	74	69	72	109
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3227.1	3227.1	3227.1	3227.1	3227.1
2.5°	3247.2	3222.1	3200.2	3235.5	3232.1
5°	3223.7	3186.8	3218.7	3225.4	3215.3
7.5°	3161.6	3138.1	3139.8	3126.4	3124.7
10°	2998.9	3012.3	2985.4	3008.9	2997.2
12.5°	2859.6	2868.0	2821.0	2831.0	2817.6
15°	2695.1	2703.5	2636.4	2649.8	2621.3
17.5°	2515.5	2545.8	2490.4	2507.2	2477.0
20°	2381.3	2406.5	2408.1	2381.3	2285.6
22.5°	2275.6	2300.7	2320.9	2240.3	2230.3
25°	2178.2	2206.8	2221.9	2168.2	2174.9
27.5°	2080.9	2112.8	2112.8	2124.5	2109.4
30°	2010.4	2023.9	2002.0	2045.7	2032.2
32.5°	1926.5	1931.6	1913.1	1945.0	1898.0
35°	1846.0	1849.3	1846.0	1847.6	1846.0
37.5°	1768.8	1760.4	1775.5	1765.4	1797.3
40°	1683.2	1683.2	1689.9	1706.7	1731.9
42.5°	1604.3	1611.0	1602.6	1649.6	1659.7
45°	1515.4	1527.1	1513.7	1575.8	1560.7
47.5°	1434.8	1439.9	1436.5	1478.5	1481.8
50°	1347.6	1354.3	1357.6	1394.5	1399.6
52.5°	1275.4	1273.7	1262.0	1315.7	1324.1
55°	1189.8	1188.1	1184.8	1226.7	1238.5
57.5°	1102.5	1104.2	1112.6	1136.1	1164.6
60°	1023.7	1015.3	1022.0	1050.5	1074.0
62.5°	943.1	928.0	912.9	959.9	981.7
65°	854.2	835.7	827.3	865.9	902.8
67.5°	771.9	741.7	736.7	763.6	807.2
70°	678.0	641.1	639.4	659.5	711.5
72.5°	573.9	542.0	533.7	560.5	607.5
75°	474.9	439.7	429.6	454.8	498.4
77.5°	367.5	339.0	332.3	345.7	380.9
80°	258.4	241.7	234.9	240.0	265.1
82.5°	162.8	151.0	147.7	146.0	159.4
85°	82.2	73.8	73.8	68.8	72.2
87.5°	25.2	23.5	21.8	16.8	18.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)