

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: P485707

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-3HI-40-120-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: P485707
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-LD4-3HI-40-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

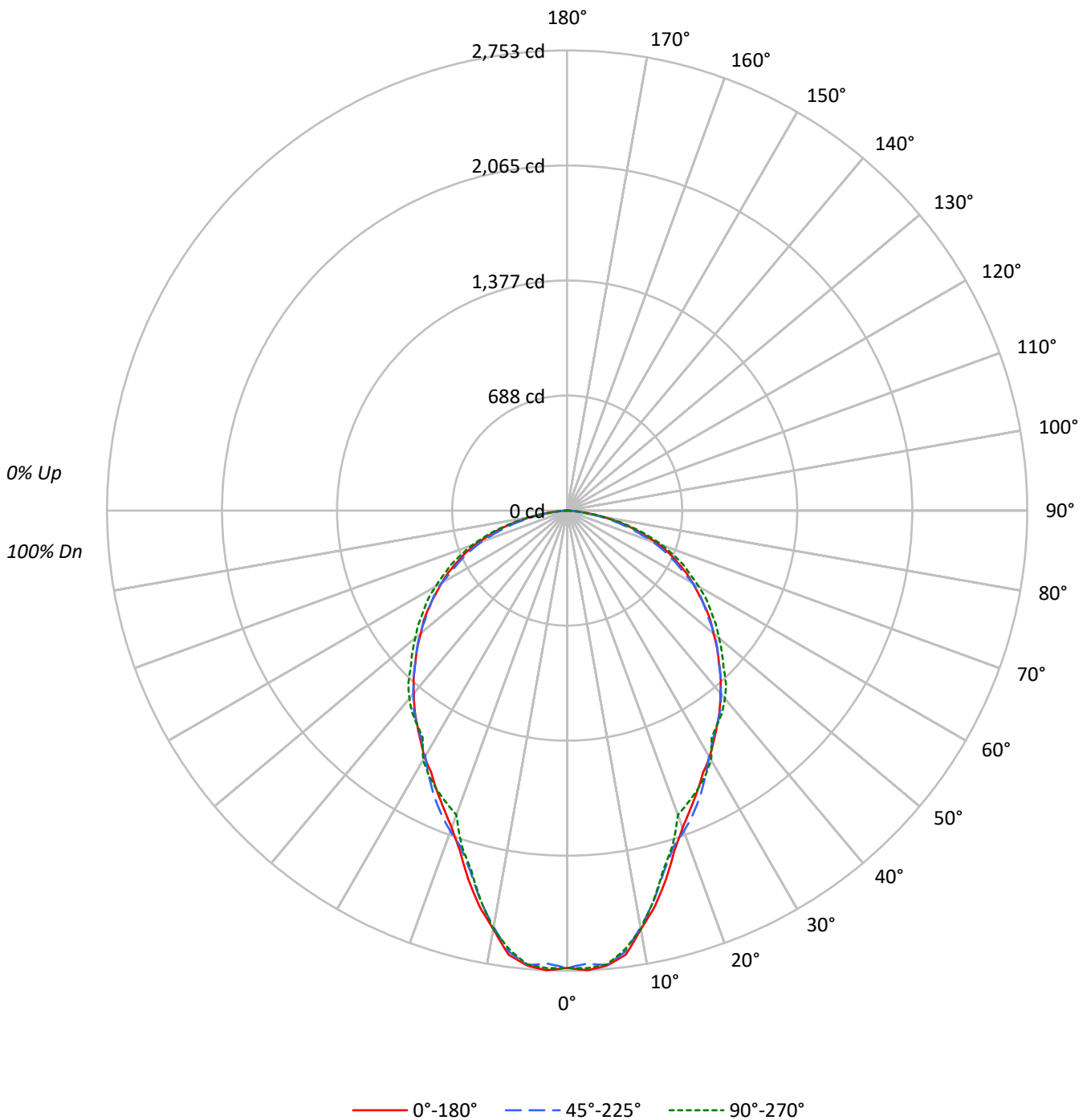
Lumens per Lamp: N/A
Luminaire Lumens: 5850.3 lumens
Efficiency: N/A
Efficacy: 88.6 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 66
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					0
RW	70	50	30	10	70	50	30	10	50	30	10	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					100			
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84					84			
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70					70			
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60					60			
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51					51			
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45					45			
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39					39			
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35					35			
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31					31			
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	35	30	28					28			
10	54	41	33	28	53	40	33	28	40	33	28	39	32	28	38	32	28	26					26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7361	7361	7361
5°	7382	7370	7363
10°	6946	6915	6942
15°	6365	6226	6190
20°	5781	5846	5548
25°	5483	5592	5474
30°	5295	5273	5353
35°	5140	5140	5140
40°	5012	5032	5157
45°	4889	4883	5035
50°	4782	4818	4967
55°	4732	4712	4925
60°	4670	4662	4900
65°	4611	4465	4873
70°	4522	4264	4746
75°	4186	3787	4393
80°	3395	3087	3484
85°	2152	1933	1890



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	254.1	4.3
10°-20°	635.2	10.9
20°-30°	857.8	14.7
30°-40°	982.3	16.8
40°-50°	1006.2	17.2
50°-60°	913.0	15.6
60°-70°	712.6	12.2
70°-80°	404.2	6.9
80°-90°	84.8	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°	1747.1	29.9
0°-40°	2729.4	46.7
0°-60°	4648.7	79.5
0°-90°	5850.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5850.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2736	2736	2736	2736	2736	
5°	2733	2701	2728	2734	2726	255
15°	2285	2292	2235	2246	2222	638
25°	1846	1871	1883	1838	1844	852
35°	1565	1568	1565	1566	1565	980
45°	1285	1294	1283	1336	1323	993
55°	1009	1007	1004	1040	1050	901
65°	724	708	701	734	765	718
75°	403	373	364	386	422	421
85°	70	63	63	58	61	92
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2735.6	2735.6	2735.6	2735.6	2735.6
2.5°	2752.6	2731.3	2712.8	2742.7	2739.8
5°	2732.7	2701.4	2728.4	2734.1	2725.6
7.5°	2680.1	2660.2	2661.6	2650.2	2648.8
10°	2542.1	2553.5	2530.7	2550.6	2540.7
12.5°	2424.0	2431.1	2391.3	2399.8	2388.5
15°	2284.6	2291.7	2234.8	2246.2	2222.0
17.5°	2132.4	2158.0	2111.1	2125.3	2099.7
20°	2018.6	2039.9	2041.4	2018.6	1937.5
22.5°	1929.0	1950.3	1967.4	1899.1	1890.6
25°	1846.5	1870.6	1883.4	1837.9	1843.6
27.5°	1764.0	1791.0	1791.0	1800.9	1788.1
30°	1704.2	1715.6	1697.1	1734.1	1722.7
32.5°	1633.1	1637.3	1621.7	1648.7	1608.9
35°	1564.8	1567.6	1564.8	1566.2	1564.8
37.5°	1499.4	1492.2	1505.1	1496.5	1523.5
40°	1426.8	1426.8	1432.5	1446.7	1468.1
42.5°	1360.0	1365.6	1358.5	1398.4	1406.9
45°	1284.6	1294.5	1283.1	1335.8	1323.0
47.5°	1216.3	1220.5	1217.7	1253.3	1256.1
50°	1142.3	1148.0	1150.8	1182.1	1186.4
52.5°	1081.1	1079.7	1069.8	1115.3	1122.4
55°	1008.6	1007.2	1004.3	1039.9	1049.8
57.5°	934.6	936.0	943.1	963.1	987.2
60°	867.8	860.6	866.3	890.5	910.4
62.5°	799.5	786.7	773.9	813.7	832.2
65°	724.1	708.4	701.3	734.0	765.3
67.5°	654.4	628.8	624.5	647.3	684.2
70°	574.7	543.4	542.0	559.1	603.2
72.5°	486.5	459.5	452.4	475.1	515.0
75°	402.6	372.7	364.2	385.5	422.5
77.5°	311.5	287.4	281.7	293.0	322.9
80°	219.1	204.8	199.2	203.4	224.8
82.5°	138.0	128.0	125.2	123.8	135.1
85°	69.7	62.6	62.6	58.3	61.2
87.5°	21.3	19.9	18.5	14.2	15.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)