

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: P485703

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-3HI-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: P485703
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-30-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

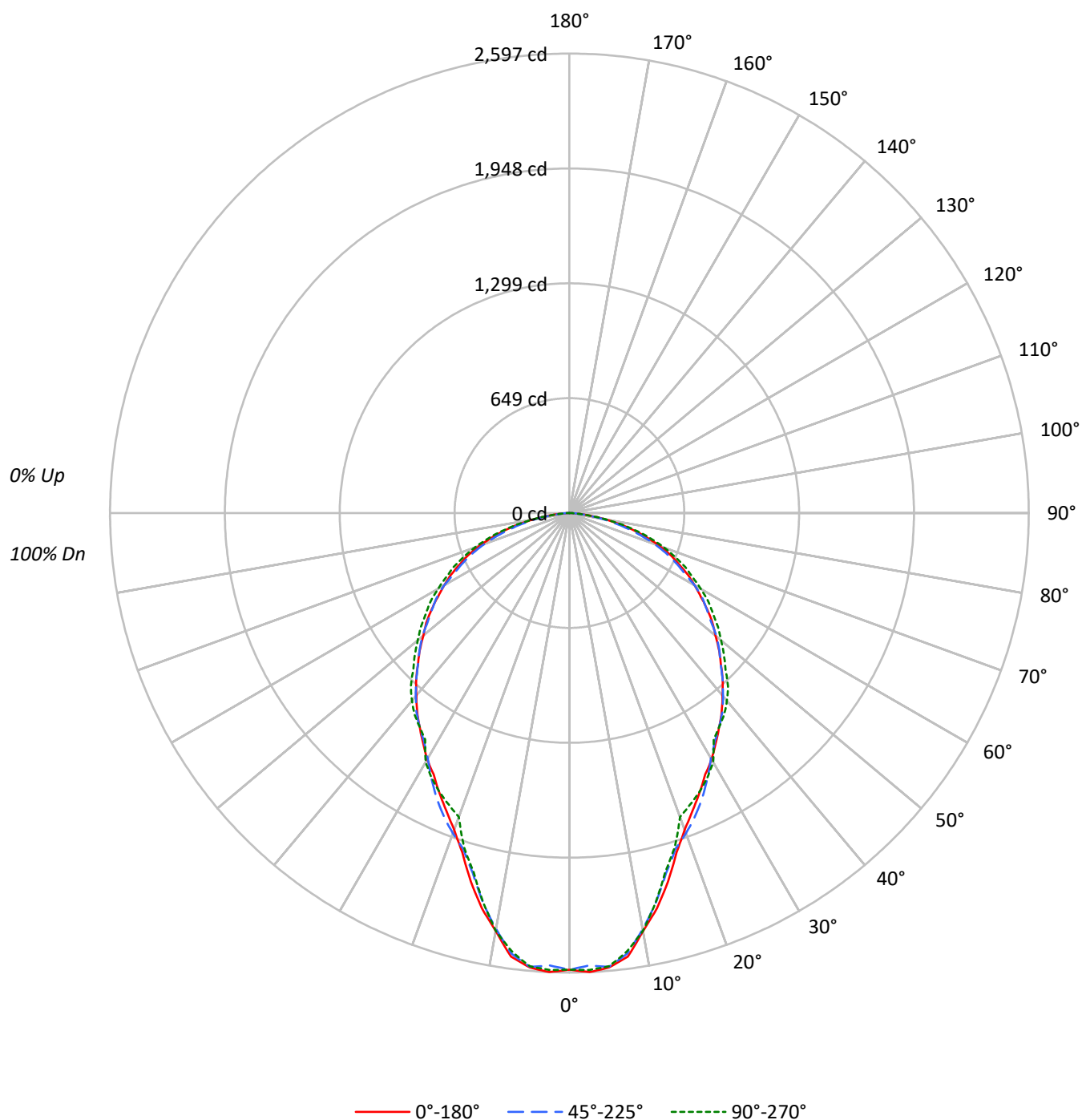
Lumens per Lamp: N/A
Luminaire Lumens: 5518.8 lumens
Efficiency: N/A
Efficacy: 83.6 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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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CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-3HI-30-120-EDD

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°	6944	6944	6944
5°	6964	6952	6945
10°	6553	6523	6549
15°	6004	5873	5840
20°	5453	5515	5234
25°	5172	5275	5164
30°	4995	4974	5050
35°	4849	4849	4849
40°	4728	4747	4865
45°	4612	4606	4749
50°	4511	4545	4685
55°	4464	4445	4646
60°	4406	4398	4622
65°	4349	4213	4597
70°	4265	4023	4477
75°	3949	3571	4144
80°	3203	2912	3285
85°	2032	1822	1782



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	239.7	4.3
10°-20°	599.2	10.9
20°-30°	809.2	14.7
30°-40°	926.7	16.8
40°-50°	949.2	17.2
50°-60°	861.3	15.6
60°-70°	672.2	12.2
70°-80°	381.3	6.9
80°-90°	80.0	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°	1648.1	29.9
0°-40°	2574.8	46.7
0°-60°	4385.3	79.5
0°-90°	5518.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5518.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2580	2580	2580	2580	2580	
5°	2578	2548	2574	2579	2571	241
15°	2155	2162	2108	2119	2096	602
25°	1742	1765	1777	1734	1739	804
35°	1476	1479	1476	1478	1476	925
45°	1212	1221	1210	1260	1248	937
55°	951	950	947	981	990	850
65°	683	668	662	692	722	677
75°	380	352	344	364	399	397
85°	66	59	59	55	58	87
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2580.5	2580.5	2580.5	2580.5	2580.5
2.5°	2596.6	2576.5	2559.1	2587.3	2584.6
5°	2577.9	2548.3	2573.8	2579.2	2571.2
7.5°	2528.2	2509.4	2510.8	2500.0	2498.7
10°	2398.0	2408.8	2387.3	2406.1	2396.7
12.5°	2286.7	2293.4	2255.8	2263.8	2253.1
15°	2155.2	2161.9	2108.2	2118.9	2096.1
17.5°	2011.6	2035.7	1991.4	2004.9	1980.7
20°	1904.2	1924.3	1925.7	1904.2	1827.7
22.5°	1819.7	1839.8	1855.9	1791.5	1783.4
25°	1741.8	1764.6	1776.7	1733.8	1739.2
27.5°	1664.0	1689.5	1689.5	1698.9	1686.8
30°	1607.6	1618.4	1600.9	1635.8	1625.1
32.5°	1540.5	1544.6	1529.8	1555.3	1517.7
35°	1476.1	1478.8	1476.1	1477.5	1476.1
37.5°	1414.4	1407.7	1419.8	1411.7	1437.2
40°	1346.0	1346.0	1351.3	1364.8	1384.9
42.5°	1282.9	1288.3	1281.6	1319.1	1327.2
45°	1211.8	1221.2	1210.4	1260.1	1248.0
47.5°	1147.4	1151.4	1148.7	1182.2	1184.9
50°	1077.6	1082.9	1085.6	1115.1	1119.2
52.5°	1019.9	1018.5	1009.1	1052.1	1058.8
55°	951.4	950.1	947.4	981.0	990.3
57.5°	881.7	883.0	889.7	908.5	931.3
60°	818.6	811.9	817.2	840.1	858.8
62.5°	754.2	742.1	730.0	767.6	785.0
65°	683.0	668.3	661.6	692.4	722.0
67.5°	617.3	593.1	589.1	610.6	645.5
70°	542.1	512.6	511.3	527.4	569.0
72.5°	458.9	433.4	426.7	448.2	485.8
75°	379.8	351.6	343.5	363.7	398.6
77.5°	293.9	271.1	265.7	276.4	304.6
80°	206.7	193.2	187.9	191.9	212.0
82.5°	130.2	120.8	118.1	116.7	127.5
85°	65.8	59.0	59.0	55.0	57.7
87.5°	20.1	18.8	17.4	13.4	14.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)