

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: P487093

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-5STD-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: P487093
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-LD4-5STD-27-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

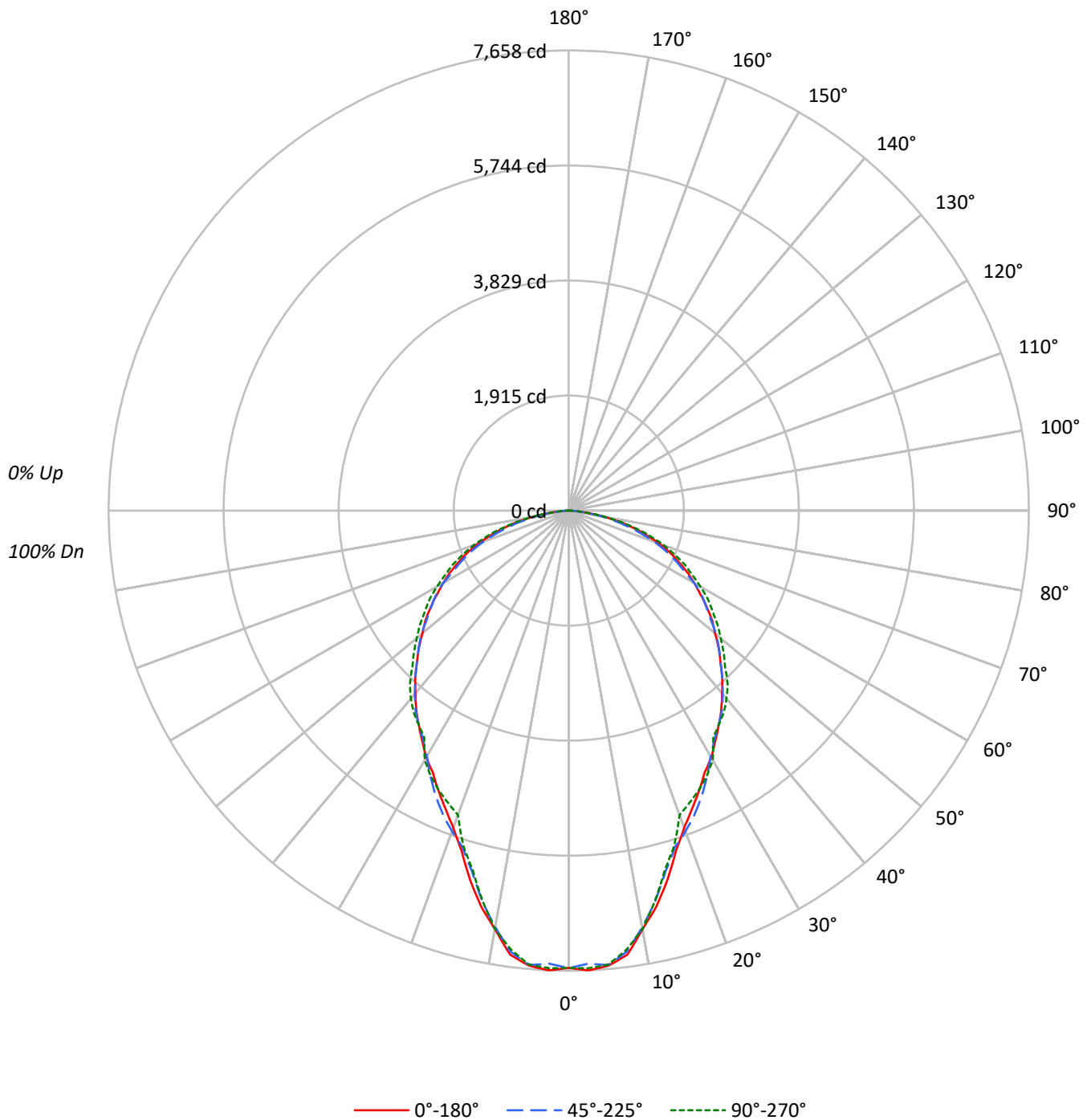
Lumens per Lamp: N/A
Luminaire Lumens: 16275.0 lumens
Efficiency: N/A
Efficacy: 97.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 166.5
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-24-4-INS-89BC-LD4-5STD-27-120-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°	10239	10239	10239
5°	10268	10252	10241
10°	9662	9619	9656
15°	8853	8660	8610
20°	8040	8131	7718
25°	7626	7779	7614
30°	7366	7335	7446
35°	7150	7150	7150
40°	6972	6999	7173
45°	6800	6792	7003
50°	6652	6701	6909
55°	6582	6554	6851
60°	6496	6485	6815
65°	6413	6211	6778
70°	6290	5932	6601
75°	5822	5267	6110
80°	4722	4293	4845
85°	2993	2688	2628



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	706.8	4.3
10°-20°	1767.1	10.9
20°-30°	2386.4	14.7
30°-40°	2732.8	16.8
40°-50°	2799.3	17.2
50°-60°	2539.9	15.6
60°-70°	1982.4	12.2
70°-80°	1124.4	6.9
80°-90°	236.0	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°	4860.3	29.9
0°-40°	7593.1	46.7
0°-60°	12932.3	79.5
0°-90°	16275.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	16275.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7610	7610	7610	7610	7610	
5°	7602	7515	7590	7606	7582	710
15°	6356	6375	6217	6249	6181	1776
25°	5137	5204	5240	5113	5129	2370
35°	4353	4361	4353	4357	4353	2727
45°	3574	3601	3570	3716	3680	2763
55°	2806	2802	2794	2893	2921	2507
65°	2014	1971	1951	2042	2129	1996
75°	1120	1037	1013	1072	1175	1172
85°	194	174	174	162	170	256
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7610.1	7610.1	7610.1	7610.1	7610.1
2.5°	7657.5	7598.2	7546.7	7629.8	7621.9
5°	7602.1	7515.1	7590.3	7606.1	7582.4
7.5°	7455.7	7400.3	7404.3	7372.6	7368.7
10°	7071.9	7103.5	7040.2	7095.6	7067.9
12.5°	6743.4	6763.2	6652.4	6676.1	6644.5
15°	6355.6	6375.4	6217.1	6248.7	6181.4
17.5°	5932.1	6003.4	5872.8	5912.3	5841.1
20°	5615.5	5674.9	5678.9	5615.5	5390.0
22.5°	5366.2	5425.6	5473.1	5283.1	5259.4
25°	5136.7	5204.0	5239.6	5112.9	5128.8
27.5°	4907.2	4982.4	4982.4	5010.1	4974.4
30°	4741.0	4772.6	4721.2	4824.1	4792.4
32.5°	4543.1	4555.0	4511.4	4586.6	4475.8
35°	4353.1	4361.0	4353.1	4357.1	4353.1
37.5°	4171.1	4151.3	4186.9	4163.2	4238.4
40°	3969.3	3969.3	3985.1	4024.7	4084.0
42.5°	3783.3	3799.1	3779.3	3890.1	3913.9
45°	3573.5	3601.2	3569.6	3716.0	3680.4
47.5°	3383.6	3395.4	3387.5	3486.5	3494.4
50°	3177.8	3193.6	3201.5	3288.6	3300.5
52.5°	3007.6	3003.7	2976.0	3102.6	3122.4
55°	2805.8	2801.8	2793.9	2892.9	2920.6
57.5°	2600.0	2604.0	2623.7	2679.2	2746.4
60°	2414.0	2394.2	2410.0	2477.3	2532.7
62.5°	2224.1	2188.4	2152.8	2263.6	2315.1
65°	2014.3	1970.8	1951.0	2042.0	2129.1
67.5°	1820.4	1749.2	1737.3	1800.6	1903.5
70°	1598.8	1511.7	1507.8	1555.3	1677.9
72.5°	1353.4	1278.2	1258.4	1321.8	1432.6
75°	1119.9	1036.8	1013.1	1072.5	1175.3
77.5°	866.7	799.4	783.6	815.2	898.3
80°	609.4	569.9	554.0	565.9	625.3
82.5°	383.9	356.2	348.3	344.3	376.0
85°	193.9	174.1	174.1	162.3	170.2
87.5°	59.4	55.4	51.4	39.6	43.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)