

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: P485640

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-1LO-27-120-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: P485640
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-LD4-1LO-27-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

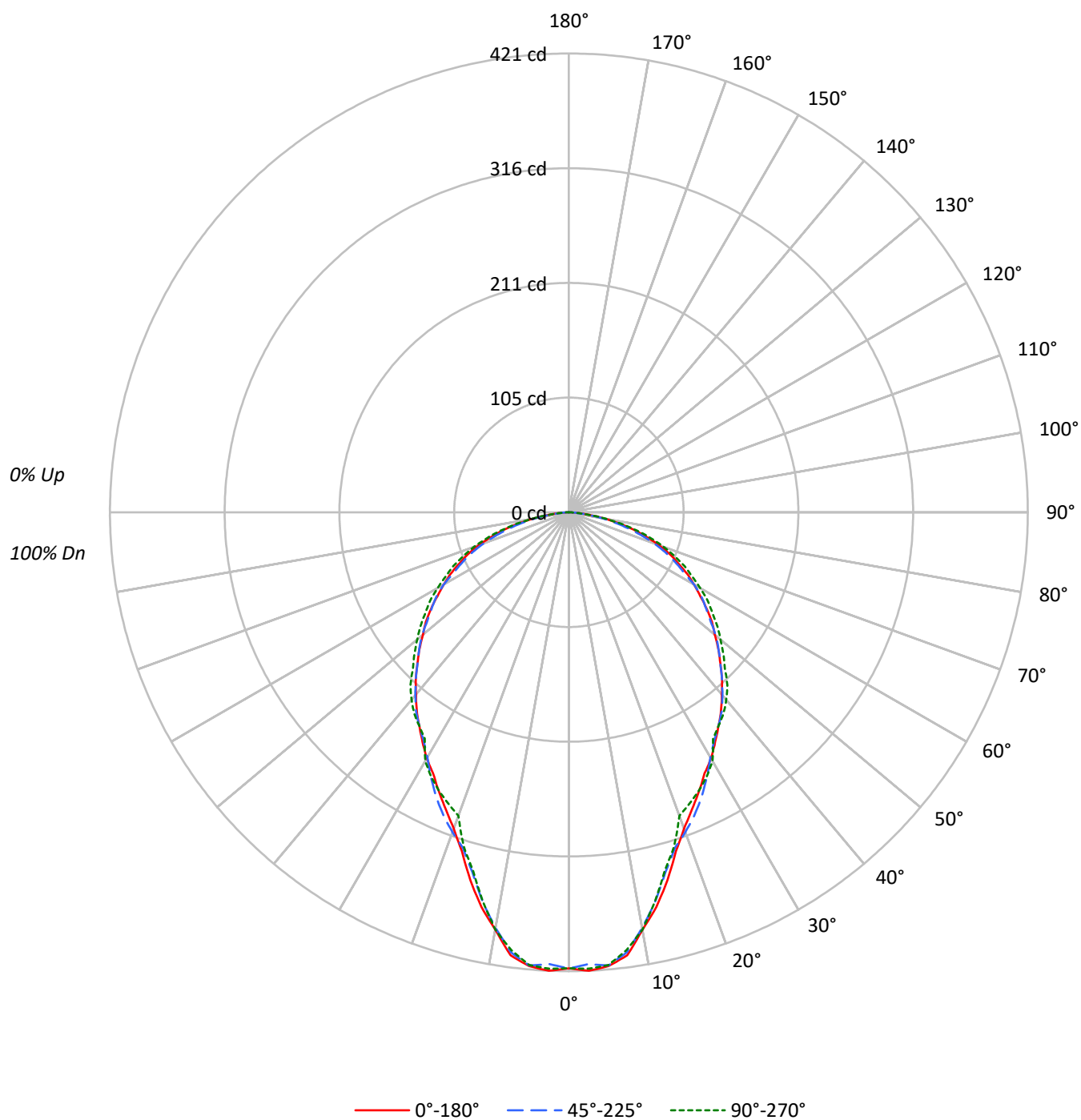
Lumens per Lamp: N/A
Luminaire Lumens: 894.8 lumens
Efficiency: N/A
Efficacy: 76.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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°	1126	1126	1126
5°	1129	1127	1126
10°	1062	1058	1062
15°	973	952	947
20°	884	894	849
25°	838	855	837
30°	810	807	819
35°	786	786	786
40°	766	770	789
45°	748	747	770
50°	731	737	760
55°	724	721	753
60°	714	713	749
65°	705	683	746
70°	692	652	726
75°	640	579	672
80°	519	473	533
85°	330	296	290



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.9	4.3
10°-20°	97.2	10.9
20°-30°	131.2	14.7
30°-40°	150.2	16.8
40°-50°	153.9	17.2
50°-60°	139.6	15.6
60°-70°	109.0	12.2
70°-80°	61.8	6.9
80°-90°	13.0	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°	267.2	29.9
0°-40°	417.5	46.7
0°-60°	711.0	79.5
0°-90°	894.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	894.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	418	418	418	418	418	
5°	418	413	417	418	417	39
15°	349	350	342	344	340	98
25°	282	286	288	281	282	130
35°	239	240	239	240	239	150
45°	196	198	196	204	202	152
55°	154	154	154	159	161	138
65°	111	108	107	112	117	110
75°	62	57	56	59	65	64
85°	11	10	10	9	9	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	418.4	418.4	418.4	418.4	418.4
2.5°	421.0	417.7	414.9	419.5	419.1
5°	418.0	413.2	417.3	418.2	416.9
7.5°	409.9	406.9	407.1	405.3	405.1
10°	388.8	390.6	387.1	390.1	388.6
12.5°	370.8	371.8	365.7	367.1	365.3
15°	349.4	350.5	341.8	343.6	339.9
17.5°	326.1	330.1	322.9	325.1	321.1
20°	308.7	312.0	312.2	308.7	296.3
22.5°	295.0	298.3	300.9	290.5	289.2
25°	282.4	286.1	288.1	281.1	282.0
27.5°	269.8	273.9	273.9	275.5	273.5
30°	260.7	262.4	259.6	265.2	263.5
32.5°	249.8	250.4	248.0	252.2	246.1
35°	239.3	239.8	239.3	239.6	239.3
37.5°	229.3	228.2	230.2	228.9	233.0
40°	218.2	218.2	219.1	221.3	224.5
42.5°	208.0	208.9	207.8	213.9	215.2
45°	196.5	198.0	196.3	204.3	202.3
47.5°	186.0	186.7	186.2	191.7	192.1
50°	174.7	175.6	176.0	180.8	181.5
52.5°	165.4	165.1	163.6	170.6	171.7
55°	154.3	154.0	153.6	159.0	160.6
57.5°	142.9	143.2	144.3	147.3	151.0
60°	132.7	131.6	132.5	136.2	139.2
62.5°	122.3	120.3	118.4	124.5	127.3
65°	110.7	108.4	107.3	112.3	117.1
67.5°	100.1	96.2	95.5	99.0	104.7
70°	87.9	83.1	82.9	85.5	92.3
72.5°	74.4	70.3	69.2	72.7	78.8
75°	61.6	57.0	55.7	59.0	64.6
77.5°	47.6	44.0	43.1	44.8	49.4
80°	33.5	31.3	30.5	31.1	34.4
82.5°	21.1	19.6	19.1	18.9	20.7
85°	10.7	9.6	9.6	8.9	9.4
87.5°	3.3	3.0	2.8	2.2	2.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)