

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: P485790

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-5LO-40-120-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: P485790
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-LD4-5LO-40-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

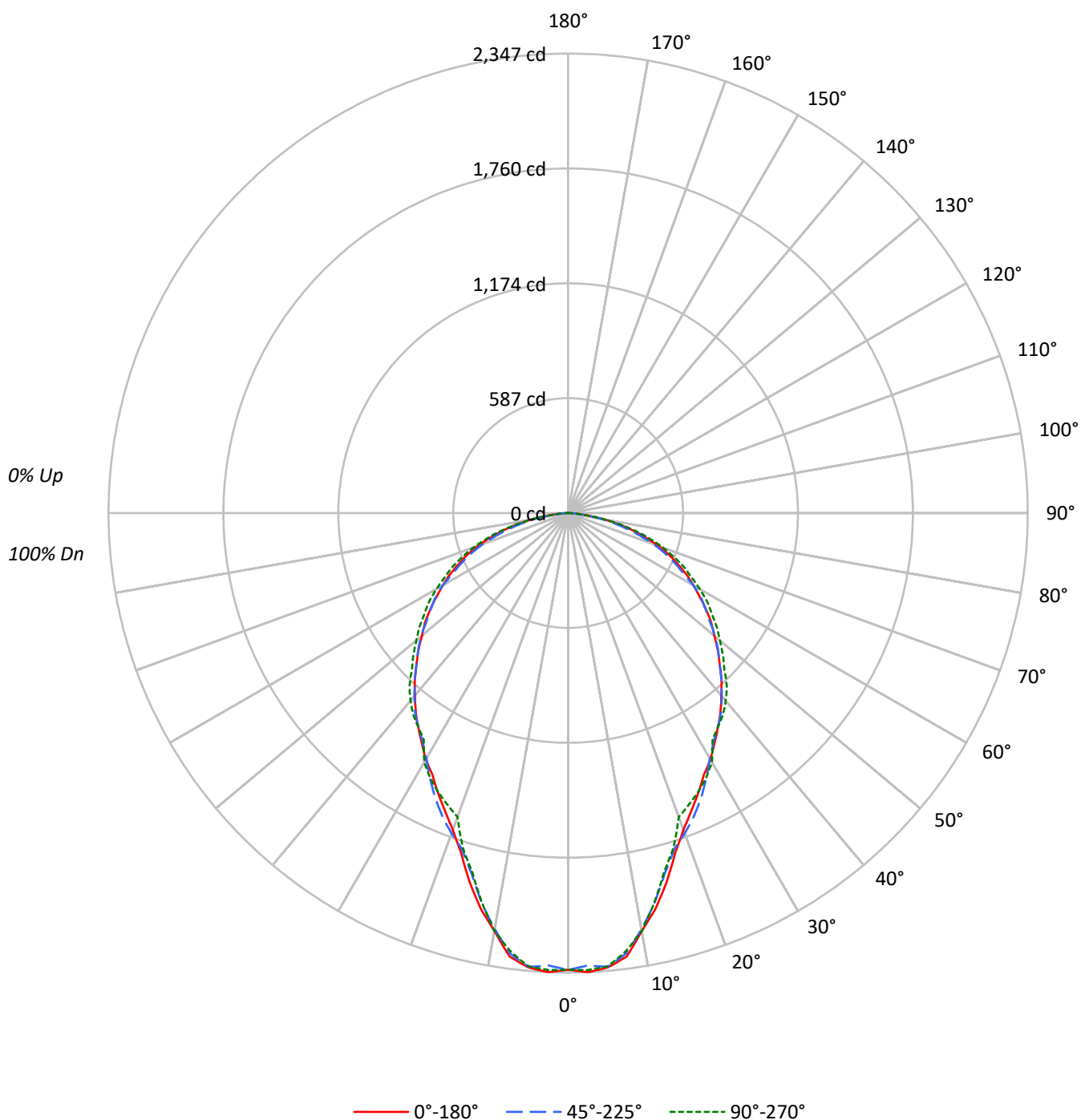
Lumens per Lamp: N/A
Luminaire Lumens: 4987.7 lumens
Efficiency: N/A
Efficacy: 85.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 58.5
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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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°	6276	6276	6276
5°	6293	6283	6277
10°	5922	5896	5919
15°	5426	5308	5278
20°	4928	4984	4730
25°	4674	4768	4667
30°	4515	4496	4564
35°	4383	4383	4383
40°	4273	4290	4397
45°	4168	4163	4292
50°	4077	4108	4235
55°	4034	4017	4199
60°	3982	3975	4177
65°	3931	3807	4155
70°	3855	3636	4046
75°	3568	3228	3745
80°	2895	2631	2969
85°	1834	1649	1612



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	216.6	4.3
10°-20°	541.5	10.9
20°-30°	731.3	14.7
30°-40°	837.5	16.8
40°-50°	857.9	17.2
50°-60°	778.4	15.6
60°-70°	607.5	12.2
70°-80°	344.6	6.9
80°-90°	72.3	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°	1489.5	29.9
0°-40°	2327.0	46.7
0°-60°	3963.3	79.5
0°-90°	4987.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4987.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2332	2332	2332	2332	2332	
5°	2330	2303	2326	2331	2324	218
15°	1948	1954	1905	1915	1894	544
25°	1574	1595	1606	1567	1572	726
35°	1334	1336	1334	1335	1334	836
45°	1095	1104	1094	1139	1128	847
55°	860	859	856	887	895	768
65°	617	604	598	626	652	612
75°	343	318	310	329	360	359
85°	59	53	53	50	52	78
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2332.2	2332.2	2332.2	2332.2	2332.2
2.5°	2346.8	2328.6	2312.8	2338.3	2335.8
5°	2329.8	2303.1	2326.1	2331.0	2323.7
7.5°	2284.9	2267.9	2269.1	2259.4	2258.2
10°	2167.3	2177.0	2157.6	2174.5	2166.1
12.5°	2066.6	2072.7	2038.7	2046.0	2036.3
15°	1947.8	1953.8	1905.3	1915.0	1894.4
17.5°	1818.0	1839.8	1799.8	1811.9	1790.1
20°	1721.0	1739.2	1740.4	1721.0	1651.8
22.5°	1644.6	1662.7	1677.3	1619.1	1611.8
25°	1574.2	1594.8	1605.7	1566.9	1571.8
27.5°	1503.9	1526.9	1526.9	1535.4	1524.5
30°	1452.9	1462.6	1446.9	1478.4	1468.7
32.5°	1392.3	1395.9	1382.6	1405.6	1371.7
35°	1334.1	1336.5	1334.1	1335.3	1334.1
37.5°	1278.3	1272.2	1283.1	1275.9	1298.9
40°	1216.4	1216.4	1221.3	1233.4	1251.6
42.5°	1159.4	1164.3	1158.2	1192.2	1199.5
45°	1095.2	1103.6	1093.9	1138.8	1127.9
47.5°	1036.9	1040.6	1038.2	1068.5	1070.9
50°	973.9	978.7	981.2	1007.8	1011.5
52.5°	921.7	920.5	912.0	950.8	956.9
55°	859.9	858.7	856.2	886.6	895.0
57.5°	796.8	798.0	804.1	821.1	841.7
60°	739.8	733.7	738.6	759.2	776.2
62.5°	681.6	670.7	659.8	693.7	709.5
65°	617.3	604.0	597.9	625.8	652.5
67.5°	557.9	536.1	532.4	551.8	583.4
70°	490.0	463.3	462.1	476.6	514.2
72.5°	414.8	391.7	385.7	405.1	439.0
75°	343.2	317.8	310.5	328.7	360.2
77.5°	265.6	245.0	240.1	249.8	275.3
80°	186.8	174.6	169.8	173.4	191.6
82.5°	117.6	109.2	106.7	105.5	115.2
85°	59.4	53.4	53.4	49.7	52.2
87.5°	18.2	17.0	15.8	12.1	13.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)