

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: P485080

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-3STD-35-120-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: P485080
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-12-4-INS-89BC-LD4-3STD-35-120-EDD-90
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

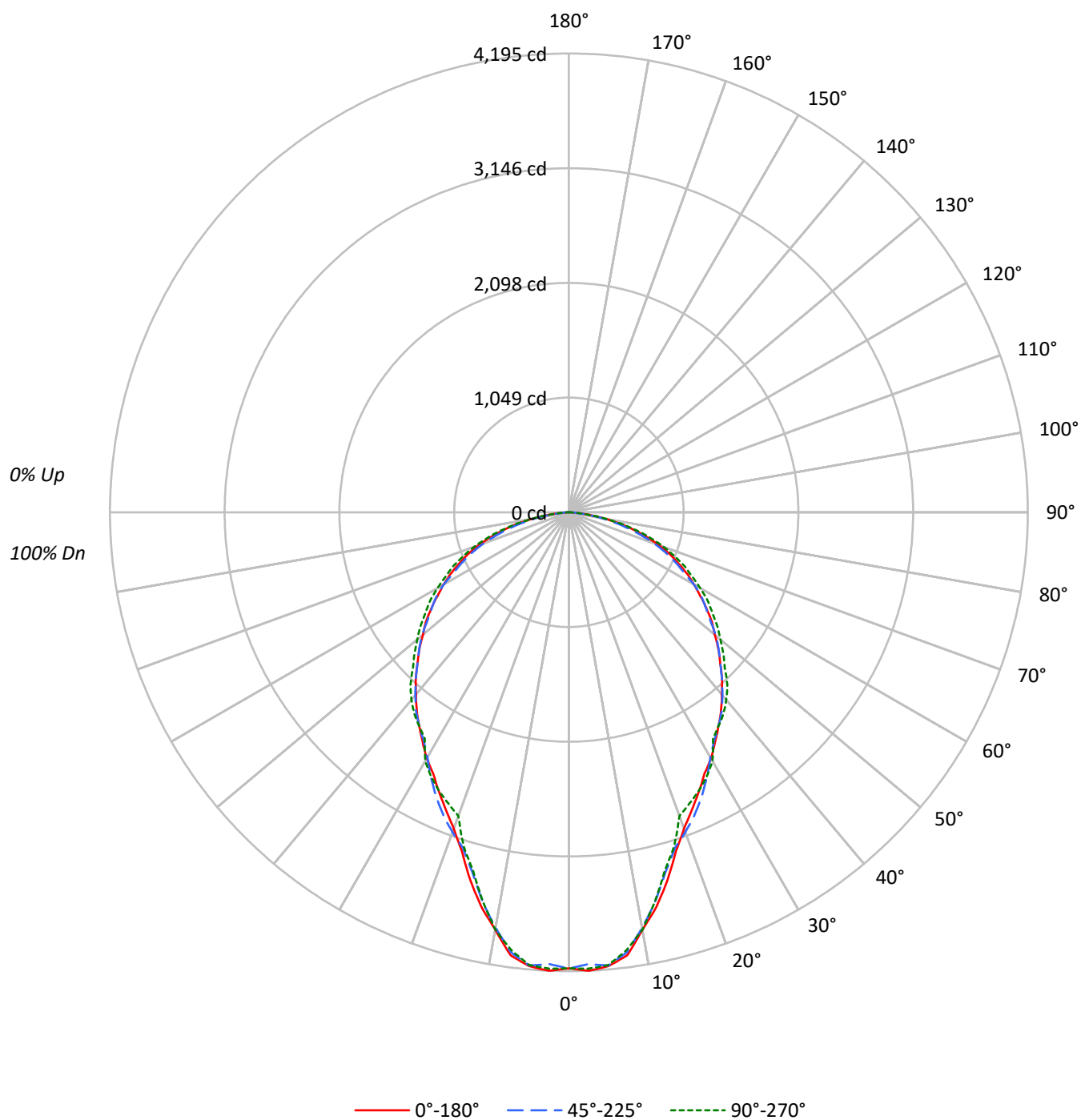
Lumens per Lamp: N/A
Luminaire Lumens: 8916.0 lumens
Efficiency: N/A
Efficacy: 89.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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°	11219	11219	11219
5°	11250	11232	11221
10°	10586	10539	10580
15°	9700	9489	9434
20°	8810	8909	8456
25°	8356	8523	8342
30°	8071	8037	8158
35°	7834	7834	7834
40°	7639	7669	7860
45°	7450	7442	7673
50°	7288	7343	7569
55°	7211	7181	7507
60°	7118	7106	7467
65°	7026	6805	7427
70°	6891	6499	7232
75°	6379	5770	6695
80°	5174	4703	5308
85°	3279	2946	2878



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	387.2	4.3
10°-20°	968.1	10.9
20°-30°	1307.4	14.7
30°-40°	1497.1	16.8
40°-50°	1533.5	17.2
50°-60°	1391.5	15.6
60°-70°	1086.0	12.2
70°-80°	616.0	6.9
80°-90°	129.3	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°	2662.6	29.9
0°-40°	4159.7	46.7
0°-60°	7084.7	79.5
0°-90°	8916.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8916.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4169	4169	4169	4169	4169	
5°	4165	4117	4158	4167	4154	389
15°	3482	3493	3406	3423	3386	973
25°	2814	2851	2870	2801	2810	1299
35°	2385	2389	2385	2387	2385	1494
45°	1958	1973	1956	2036	2016	1514
55°	1537	1535	1531	1585	1600	1374
65°	1104	1080	1069	1119	1166	1094
75°	614	568	555	588	644	642
85°	106	95	95	89	93	140
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4169.0	4169.0	4169.0	4169.0	4169.0
2.5°	4195.1	4162.5	4134.4	4179.9	4175.6
5°	4164.7	4117.0	4158.2	4166.9	4153.9
7.5°	4084.5	4054.1	4056.3	4039.0	4036.8
10°	3874.2	3891.5	3856.9	3887.2	3872.0
12.5°	3694.3	3705.1	3644.4	3657.4	3640.1
15°	3481.8	3492.6	3405.9	3423.3	3386.4
17.5°	3249.8	3288.8	3217.3	3239.0	3200.0
20°	3076.4	3108.9	3111.1	3076.4	2952.8
22.5°	2939.8	2972.3	2998.3	2894.3	2881.3
25°	2814.1	2850.9	2870.4	2801.0	2809.7
27.5°	2688.3	2729.5	2729.5	2744.7	2725.2
30°	2597.3	2614.6	2586.4	2642.8	2625.4
32.5°	2488.9	2495.4	2471.5	2512.7	2452.0
35°	2384.8	2389.1	2384.8	2387.0	2384.8
37.5°	2285.1	2274.2	2293.7	2280.7	2321.9
40°	2174.5	2174.5	2183.2	2204.8	2237.4
42.5°	2072.6	2081.3	2070.4	2131.1	2144.1
45°	1957.7	1972.9	1955.5	2035.7	2016.2
47.5°	1853.6	1860.1	1855.8	1910.0	1914.3
50°	1740.9	1749.6	1753.9	1801.6	1808.1
52.5°	1647.7	1645.5	1630.3	1699.7	1710.5
55°	1537.1	1534.9	1530.6	1584.8	1600.0
57.5°	1424.4	1426.5	1437.4	1467.7	1504.6
60°	1322.5	1311.6	1320.3	1357.2	1387.5
62.5°	1218.4	1198.9	1179.4	1240.1	1268.3
65°	1103.5	1079.7	1068.8	1118.7	1166.4
67.5°	997.3	958.3	951.7	986.4	1042.8
70°	875.9	828.2	826.0	852.0	919.2
72.5°	741.5	700.3	689.4	724.1	784.8
75°	613.5	568.0	555.0	587.5	643.9
77.5°	474.8	437.9	429.3	446.6	492.1
80°	333.9	312.2	303.5	310.0	342.5
82.5°	210.3	195.1	190.8	188.6	206.0
85°	106.2	95.4	95.4	88.9	93.2
87.5°	32.5	30.4	28.2	21.7	23.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)