

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: P487061

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-4STD-35-120-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: P487061
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-LD4-4STD-35-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

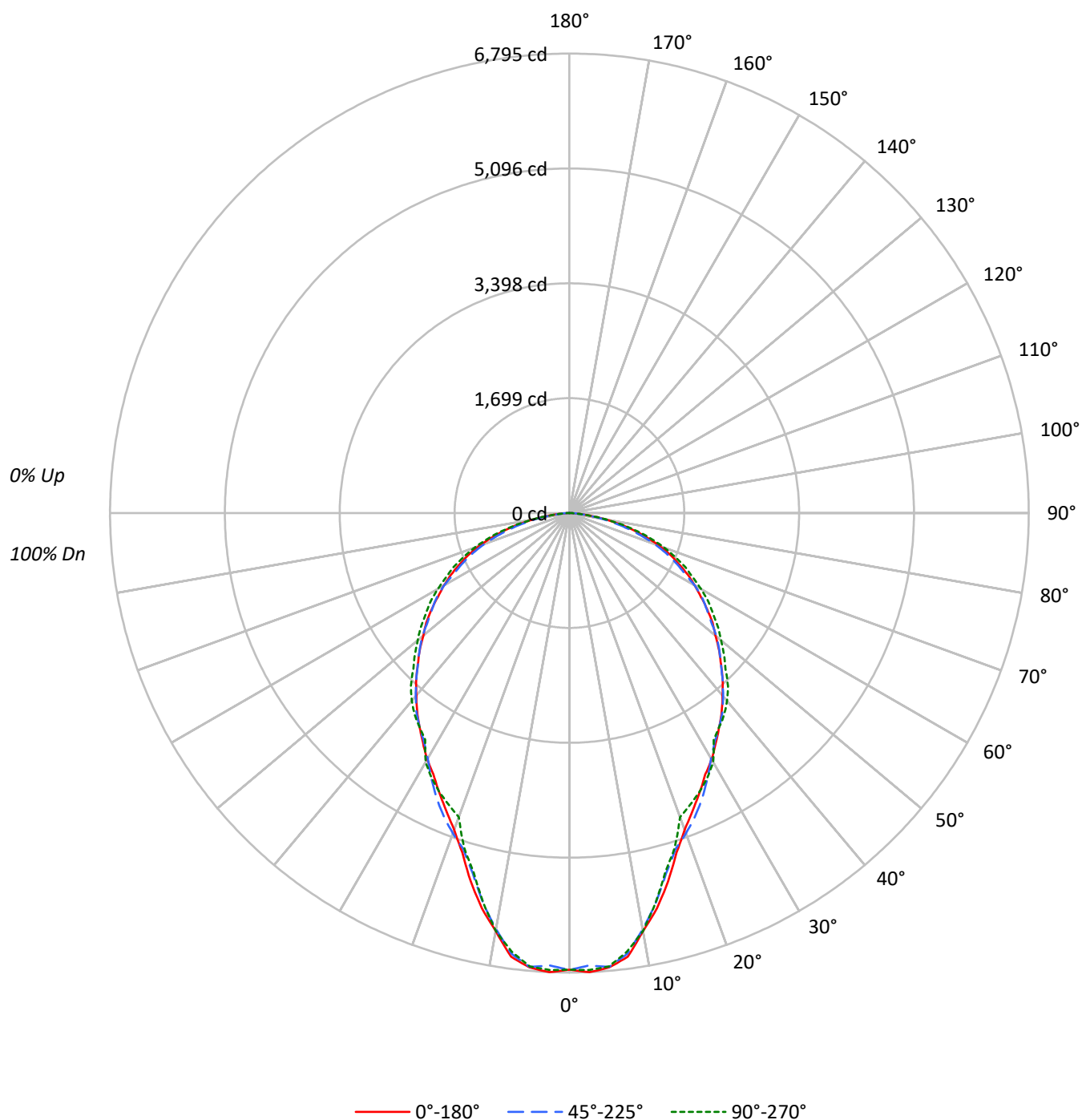
Lumens per Lamp: N/A
Luminaire Lumens: 14442.5 lumens
Efficiency: N/A
Efficacy: 108.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 133.2
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°	9086	9086	9086
5°	9112	9097	9088
10°	8574	8536	8569
15°	7856	7685	7641
20°	7135	7216	6849
25°	6767	6903	6757
30°	6536	6509	6607
35°	6345	6345	6345
40°	6187	6211	6366
45°	6034	6027	6215
50°	5903	5947	6131
55°	5841	5816	6080
60°	5765	5755	6048
65°	5691	5512	6015
70°	5581	5264	5858
75°	5166	4674	5422
80°	4190	3810	4300
85°	2657	2385	2331



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	627.2	4.3
10°-20°	1568.1	10.9
20°-30°	2117.7	14.7
30°-40°	2425.1	16.8
40°-50°	2484.1	17.2
50°-60°	2254.0	15.6
60°-70°	1759.2	12.2
70°-80°	997.8	6.9
80°-90°	209.4	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°	4313.0	29.9
0°-40°	6738.1	46.7
0°-60°	11476.1	79.5
0°-90°	14442.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14442.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6753	6753	6753	6753	6753	
5°	6746	6669	6736	6750	6729	630
15°	5640	5658	5517	5545	5485	1576
25°	4558	4618	4650	4537	4551	2103
35°	3863	3870	3863	3866	3863	2420
45°	3171	3196	3168	3298	3266	2452
55°	2490	2486	2479	2567	2592	2225
65°	1788	1749	1731	1812	1889	1771
75°	994	920	899	952	1043	1040
85°	172	154	154	144	151	227
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6753.2	6753.2	6753.2	6753.2	6753.2
2.5°	6795.3	6742.7	6697.0	6770.8	6763.7
5°	6746.2	6668.9	6735.6	6749.7	6728.6
7.5°	6616.2	6567.1	6570.6	6542.5	6539.0
10°	6275.6	6303.7	6247.5	6296.7	6272.1
12.5°	5984.1	6001.7	5903.3	5924.4	5896.3
15°	5640.0	5657.5	5517.0	5545.1	5485.4
17.5°	5264.2	5327.4	5211.5	5246.6	5183.4
20°	4983.2	5035.9	5039.4	4983.2	4783.1
22.5°	4762.0	4814.7	4856.8	4688.3	4667.2
25°	4558.3	4618.0	4649.6	4537.2	4551.3
27.5°	4354.6	4421.4	4421.4	4445.9	4414.3
30°	4207.1	4235.2	4189.6	4280.9	4252.8
32.5°	4031.5	4042.1	4003.5	4070.2	3971.8
35°	3863.0	3870.0	3863.0	3866.5	3863.0
37.5°	3701.4	3683.9	3715.5	3694.4	3761.1
40°	3522.3	3522.3	3536.4	3571.5	3624.2
42.5°	3357.3	3371.3	3353.8	3452.1	3473.2
45°	3171.2	3195.7	3167.6	3297.6	3266.0
47.5°	3002.6	3013.1	3006.1	3093.9	3100.9
50°	2820.0	2834.0	2841.0	2918.3	2928.8
52.5°	2669.0	2665.5	2640.9	2753.3	2770.8
55°	2489.9	2486.4	2479.3	2567.1	2591.7
57.5°	2307.3	2310.8	2328.3	2377.5	2437.2
60°	2142.2	2124.6	2138.7	2198.4	2247.6
62.5°	1973.6	1942.0	1910.4	2008.8	2054.4
65°	1787.5	1748.9	1731.3	1812.1	1889.3
67.5°	1615.4	1552.2	1541.7	1597.9	1689.2
70°	1418.8	1341.5	1338.0	1380.1	1489.0
72.5°	1201.0	1134.3	1116.8	1172.9	1271.3
75°	993.8	920.1	899.0	951.7	1043.0
77.5°	769.1	709.4	695.3	723.4	797.2
80°	540.8	505.7	491.7	502.2	554.9
82.5°	340.6	316.1	309.0	305.5	333.6
85°	172.1	154.5	154.5	144.0	151.0
87.5°	52.7	49.2	45.7	35.1	38.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)