

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: P485831

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-6STD-20-120-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: P485831
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-LD4-6STD-20-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

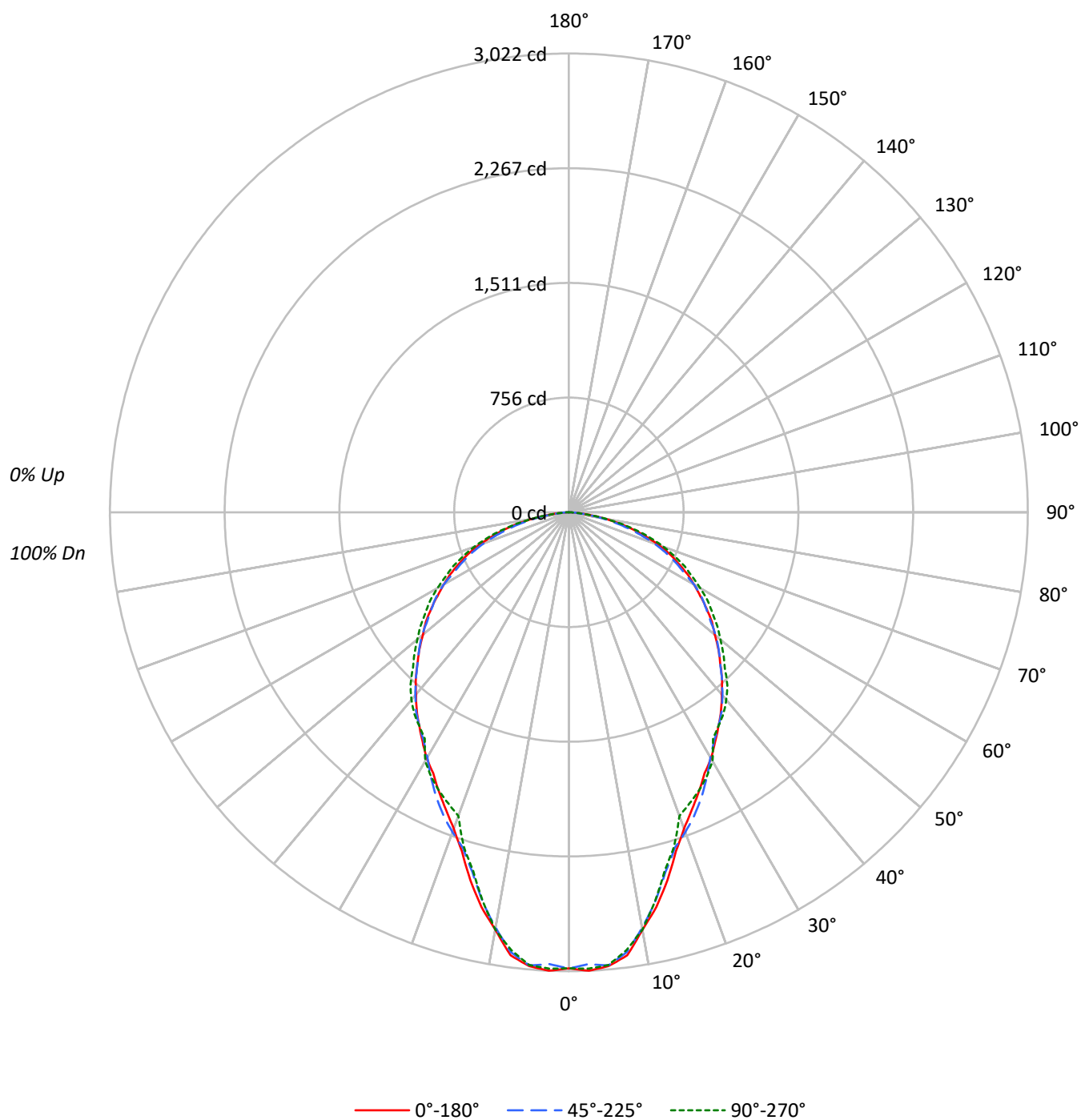
Lumens per Lamp: N/A
Luminaire Lumens: 6422.5 lumens
Efficiency: N/A
Efficacy: 64.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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				10				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84			
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70			
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60			
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51			
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45			
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39			
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35			
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31			
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	35	30	28			
10	54	41	33	28	53	40	33	28	40	33	28	39	32	28	38	32	28	26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8081	8081	8081
5°	8104	8091	8083
10°	7626	7591	7621
15°	6987	6835	6796
20°	6346	6418	6091
25°	6019	6139	6009
30°	5813	5789	5876
35°	5643	5643	5643
40°	5502	5524	5662
45°	5367	5361	5527
50°	5250	5289	5452
55°	5195	5172	5407
60°	5127	5119	5379
65°	5061	4902	5350
70°	4964	4681	5210
75°	4596	4157	4822
80°	3727	3388	3823
85°	2362	2121	2075



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	278.9	4.3
10°-20°	697.3	10.9
20°-30°	941.7	14.7
30°-40°	1078.4	16.8
40°-50°	1104.6	17.2
50°-60°	1002.3	15.6
60°-70°	782.3	12.2
70°-80°	443.7	6.9
80°-90°	93.1	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°	1918.0	29.9
0°-40°	2996.4	46.7
0°-60°	5103.4	79.5
0°-90°	6422.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6422.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3003	3003	3003	3003	3003	
5°	3000	2966	2995	3002	2992	280
15°	2508	2516	2453	2466	2439	701
25°	2027	2054	2068	2018	2024	935
35°	1718	1721	1718	1719	1718	1076
45°	1410	1421	1409	1466	1452	1090
55°	1107	1106	1102	1142	1152	989
65°	795	778	770	806	840	788
75°	442	409	400	423	464	462
85°	76	69	69	64	67	101
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3003.1	3003.1	3003.1	3003.1	3003.1
2.5°	3021.8	2998.4	2978.1	3010.9	3007.8
5°	3000.0	2965.6	2995.3	3001.5	2992.2
7.5°	2942.2	2920.3	2921.9	2909.4	2907.8
10°	2790.7	2803.2	2778.2	2800.1	2789.2
12.5°	2661.1	2668.9	2625.2	2634.6	2622.1
15°	2508.1	2515.9	2453.4	2465.9	2439.3
17.5°	2341.0	2369.1	2317.5	2333.1	2305.0
20°	2216.0	2239.4	2241.0	2216.0	2127.0
22.5°	2117.6	2141.1	2159.8	2084.8	2075.5
25°	2027.1	2053.6	2067.7	2017.7	2023.9
27.5°	1936.5	1966.2	1966.2	1977.1	1963.0
30°	1870.9	1883.4	1863.1	1903.7	1891.2
32.5°	1792.8	1797.5	1780.3	1810.0	1766.3
35°	1717.8	1721.0	1717.8	1719.4	1717.8
37.5°	1646.0	1638.2	1652.3	1642.9	1672.6
40°	1566.4	1566.4	1572.6	1588.2	1611.7
42.5°	1493.0	1499.2	1491.4	1535.1	1544.5
45°	1410.2	1421.1	1408.6	1466.4	1452.4
47.5°	1335.2	1339.9	1336.8	1375.8	1379.0
50°	1254.0	1260.3	1263.4	1297.8	1302.4
52.5°	1186.9	1185.3	1174.4	1224.4	1232.2
55°	1107.2	1105.7	1102.5	1141.6	1152.5
57.5°	1026.0	1027.6	1035.4	1057.3	1083.8
60°	952.6	944.8	951.1	977.6	999.5
62.5°	877.7	863.6	849.6	893.3	913.6
65°	794.9	777.7	769.9	805.8	840.2
67.5°	718.4	690.3	685.6	710.6	751.2
70°	630.9	596.6	595.0	613.7	662.2
72.5°	534.1	504.4	496.6	521.6	565.3
75°	442.0	409.2	399.8	423.2	463.8
77.5°	342.0	315.5	309.2	321.7	354.5
80°	240.5	224.9	218.6	223.3	246.7
82.5°	151.5	140.6	137.4	135.9	148.4
85°	76.5	68.7	68.7	64.0	67.2
87.5°	23.4	21.9	20.3	15.6	17.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)