

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: P485819

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-6LO-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: P485819
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-LD4-6LO-20-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

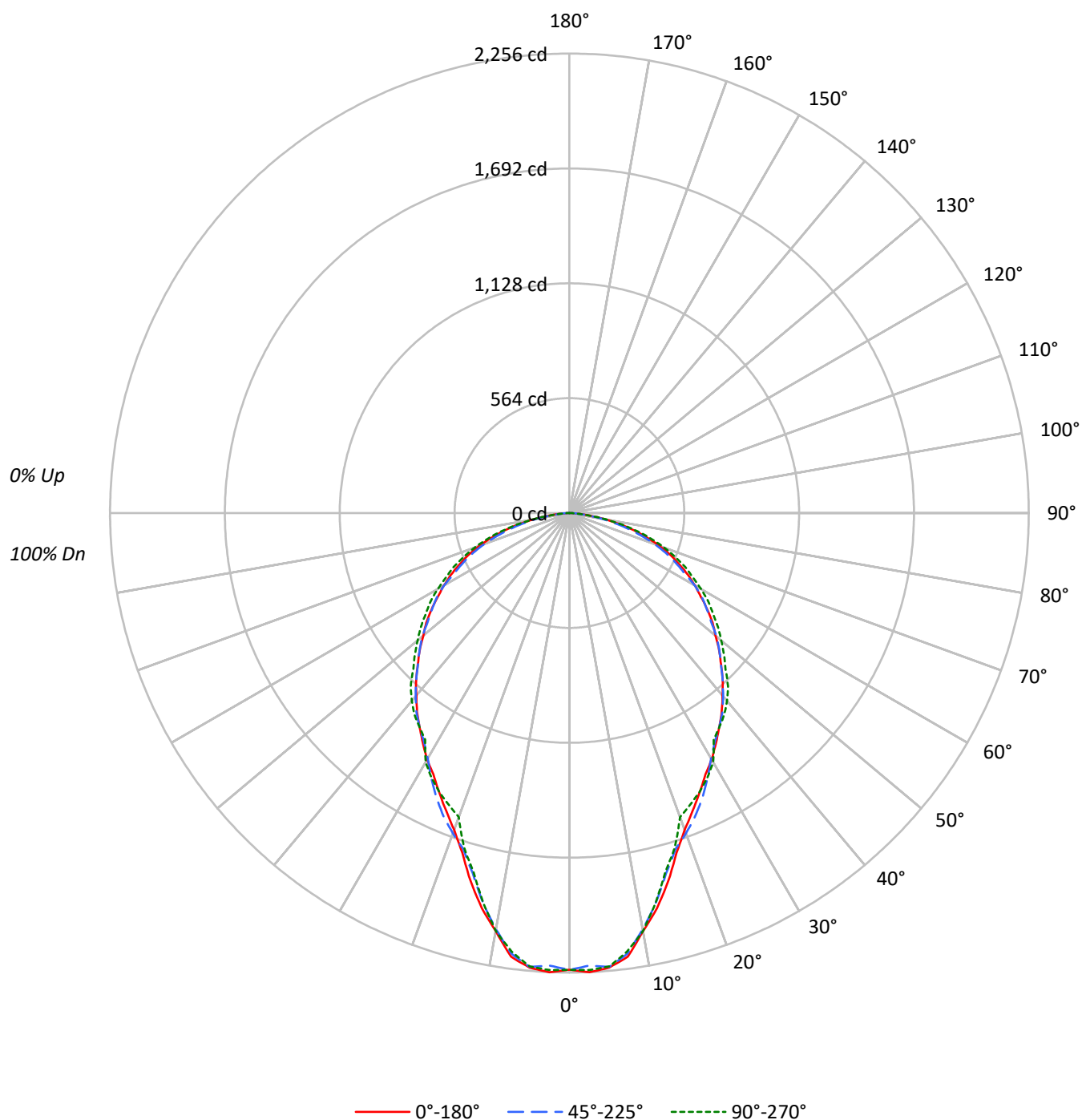
Lumens per Lamp: N/A
Luminaire Lumens: 4795.9 lumens
Efficiency: N/A
Efficacy: 68.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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					10
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°	6035	6035	6035
5°	6051	6042	6036
10°	5694	5669	5691
15°	5218	5104	5075
20°	4739	4792	4548
25°	4494	4584	4487
30°	4341	4323	4388
35°	4214	4214	4214
40°	4109	4125	4228
45°	4007	4003	4127
50°	3920	3949	4072
55°	3879	3863	4038
60°	3829	3822	4017
65°	3780	3661	3995
70°	3707	3496	3891
75°	3431	3104	3601
80°	2783	2531	2856
85°	1763	1584	1547



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	208.3	4.3
10°-20°	520.7	10.9
20°-30°	703.2	14.7
30°-40°	805.3	16.8
40°-50°	824.9	17.2
50°-60°	748.5	15.6
60°-70°	584.1	12.2
70°-80°	331.3	6.9
80°-90°	69.5	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°	1432.2	29.9
0°-40°	2237.5	46.7
0°-60°	3810.9	79.5
0°-90°	4795.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4795.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2242	2242	2242	2242	2242	
5°	2240	2214	2237	2241	2234	209
15°	1873	1879	1832	1841	1822	523
25°	1514	1534	1544	1507	1511	698
35°	1283	1285	1283	1284	1283	804
45°	1053	1061	1052	1095	1084	814
55°	827	826	823	852	861	739
65°	594	581	575	602	627	588
75°	330	306	298	316	346	345
85°	57	51	51	48	50	75
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2242.5	2242.5	2242.5	2242.5	2242.5
2.5°	2256.5	2239.0	2223.9	2248.4	2246.0
5°	2240.2	2214.5	2236.7	2241.4	2234.4
7.5°	2197.0	2180.7	2181.9	2172.6	2171.4
10°	2083.9	2093.3	2074.6	2090.9	2082.8
12.5°	1987.1	1993.0	1960.3	1967.3	1958.0
15°	1872.9	1878.7	1832.0	1841.4	1821.5
17.5°	1748.1	1769.1	1730.6	1742.2	1721.3
20°	1654.8	1672.3	1673.4	1654.8	1588.3
22.5°	1581.3	1598.8	1612.8	1556.8	1549.8
25°	1513.7	1533.5	1544.0	1506.7	1511.3
27.5°	1446.0	1468.2	1468.2	1476.4	1465.9
30°	1397.1	1406.4	1391.2	1421.5	1412.2
32.5°	1338.8	1342.2	1329.4	1351.6	1318.9
35°	1282.8	1285.1	1282.8	1283.9	1282.8
37.5°	1229.1	1223.3	1233.8	1226.8	1249.0
40°	1169.7	1169.7	1174.3	1186.0	1203.5
42.5°	1114.8	1119.5	1113.7	1146.3	1153.3
45°	1053.0	1061.2	1051.9	1095.0	1084.5
47.5°	997.1	1000.6	998.2	1027.4	1029.7
50°	936.4	941.1	943.4	969.1	972.6
52.5°	886.3	885.1	877.0	914.3	920.1
55°	826.8	825.6	823.3	852.5	860.6
57.5°	766.2	767.3	773.2	789.5	809.3
60°	711.4	705.5	710.2	730.0	746.3
62.5°	655.4	644.9	634.4	667.0	682.2
65°	593.6	580.7	574.9	601.7	627.4
67.5°	536.4	515.4	511.9	530.6	560.9
70°	471.1	445.5	444.3	458.3	494.5
72.5°	398.8	376.7	370.8	389.5	422.1
75°	330.0	305.5	298.5	316.0	346.3
77.5°	255.4	235.6	230.9	240.2	264.7
80°	179.6	167.9	163.3	166.8	184.3
82.5°	113.1	105.0	102.6	101.5	110.8
85°	57.1	51.3	51.3	47.8	50.1
87.5°	17.5	16.3	15.2	11.7	12.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)