

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: P485656

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-1STD-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: P485656
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-LD4-1STD-35-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

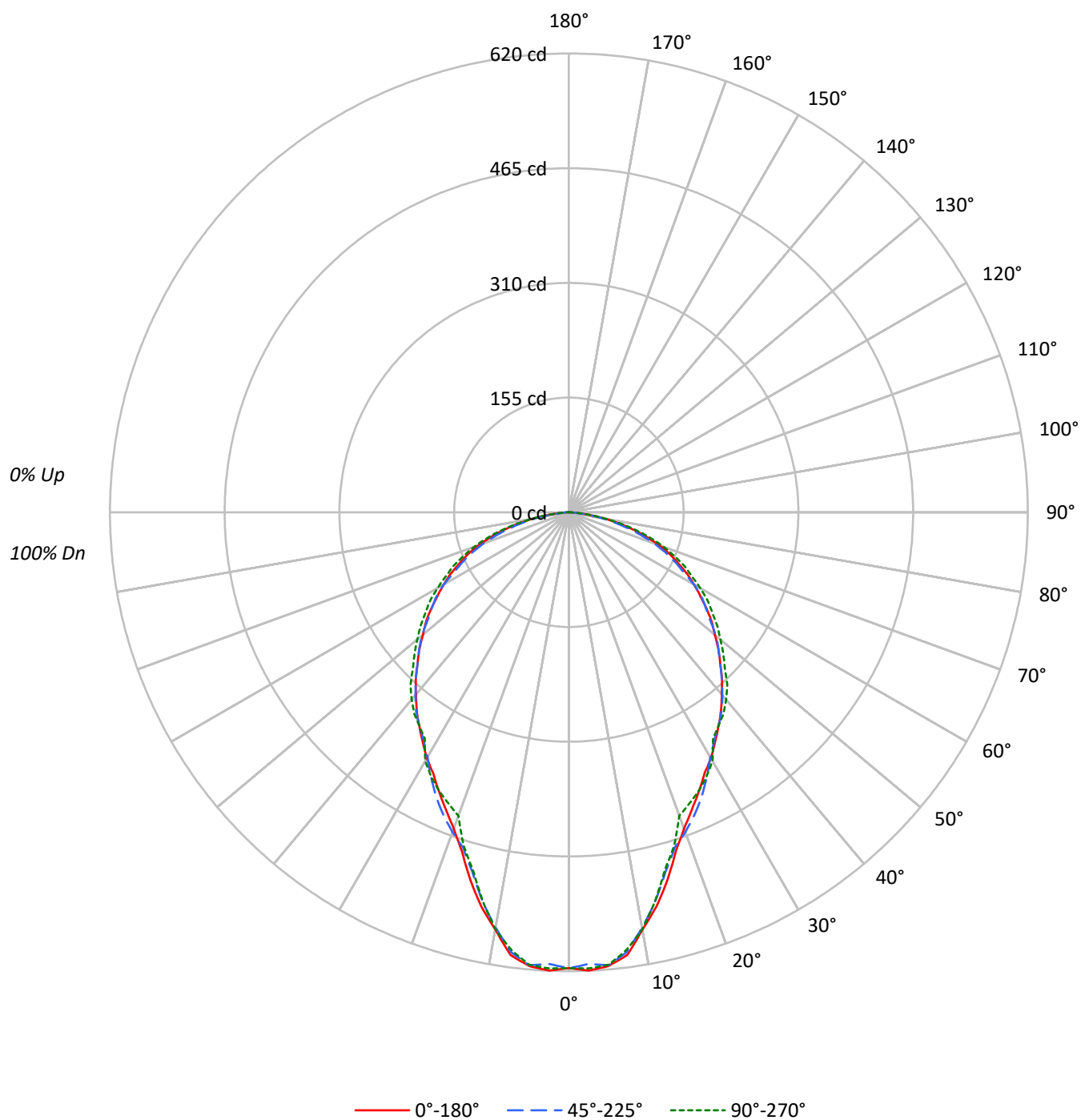
Lumens per Lamp: N/A
Luminaire Lumens: 1317.2 lumens
Efficiency: N/A
Efficacy: 79.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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°	1657	1657	1657
5°	1662	1659	1658
10°	1564	1557	1563
15°	1433	1402	1394
20°	1302	1316	1249
25°	1234	1259	1233
30°	1192	1187	1205
35°	1157	1157	1157
40°	1128	1133	1161
45°	1101	1099	1134
50°	1077	1085	1118
55°	1065	1061	1109
60°	1052	1050	1103
65°	1038	1005	1097
70°	1018	960	1068
75°	942	853	989
80°	764	694	784
85°	485	435	426



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.2	4.3
10°-20°	143.0	10.9
20°-30°	193.1	14.7
30°-40°	221.2	16.8
40°-50°	226.6	17.2
50°-60°	205.6	15.6
60°-70°	160.4	12.2
70°-80°	91.0	6.9
80°-90°	19.1	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°	393.4	29.9
0°-40°	614.5	46.7
0°-60°	1046.7	79.5
0°-90°	1317.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1317.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	616	616	616	616	616	
5°	615	608	614	616	614	57
15°	514	516	503	506	500	144
25°	416	421	424	414	415	192
35°	352	353	352	353	352	221
45°	289	292	289	301	298	224
55°	227	227	226	234	236	203
65°	163	160	158	165	172	162
75°	91	84	82	87	95	95
85°	16	14	14	13	14	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	615.9	615.9	615.9	615.9	615.9
2.5°	619.8	615.0	610.8	617.5	616.9
5°	615.3	608.2	614.3	615.6	613.7
7.5°	603.4	598.9	599.3	596.7	596.4
10°	572.4	574.9	569.8	574.3	572.0
12.5°	545.8	547.4	538.4	540.3	537.8
15°	514.4	516.0	503.2	505.7	500.3
17.5°	480.1	485.9	475.3	478.5	472.7
20°	454.5	459.3	459.6	454.5	436.2
22.5°	434.3	439.1	443.0	427.6	425.7
25°	415.7	421.2	424.1	413.8	415.1
27.5°	397.2	403.2	403.2	405.5	402.6
30°	383.7	386.3	382.1	390.4	387.9
32.5°	367.7	368.7	365.1	371.2	362.2
35°	352.3	353.0	352.3	352.6	352.3
37.5°	337.6	336.0	338.9	336.9	343.0
40°	321.2	321.2	322.5	325.7	330.5
42.5°	306.2	307.5	305.9	314.8	316.8
45°	289.2	291.5	288.9	300.7	297.9
47.5°	273.8	274.8	274.2	282.2	282.8
50°	257.2	258.5	259.1	266.2	267.1
52.5°	243.4	243.1	240.9	251.1	252.7
55°	227.1	226.8	226.1	234.1	236.4
57.5°	210.4	210.7	212.4	216.8	222.3
60°	195.4	193.8	195.1	200.5	205.0
62.5°	180.0	177.1	174.2	183.2	187.4
65°	163.0	159.5	157.9	165.3	172.3
67.5°	147.3	141.6	140.6	145.7	154.1
70°	129.4	122.3	122.0	125.9	135.8
72.5°	109.5	103.5	101.9	107.0	115.9
75°	90.6	83.9	82.0	86.8	95.1
77.5°	70.1	64.7	63.4	66.0	72.7
80°	49.3	46.1	44.8	45.8	50.6
82.5°	31.1	28.8	28.2	27.9	30.4
85°	15.7	14.1	14.1	13.1	13.8
87.5°	4.8	4.5	4.2	3.2	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)