

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: P485663

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-2HI-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: P485663
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-LD4-2HI-20-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

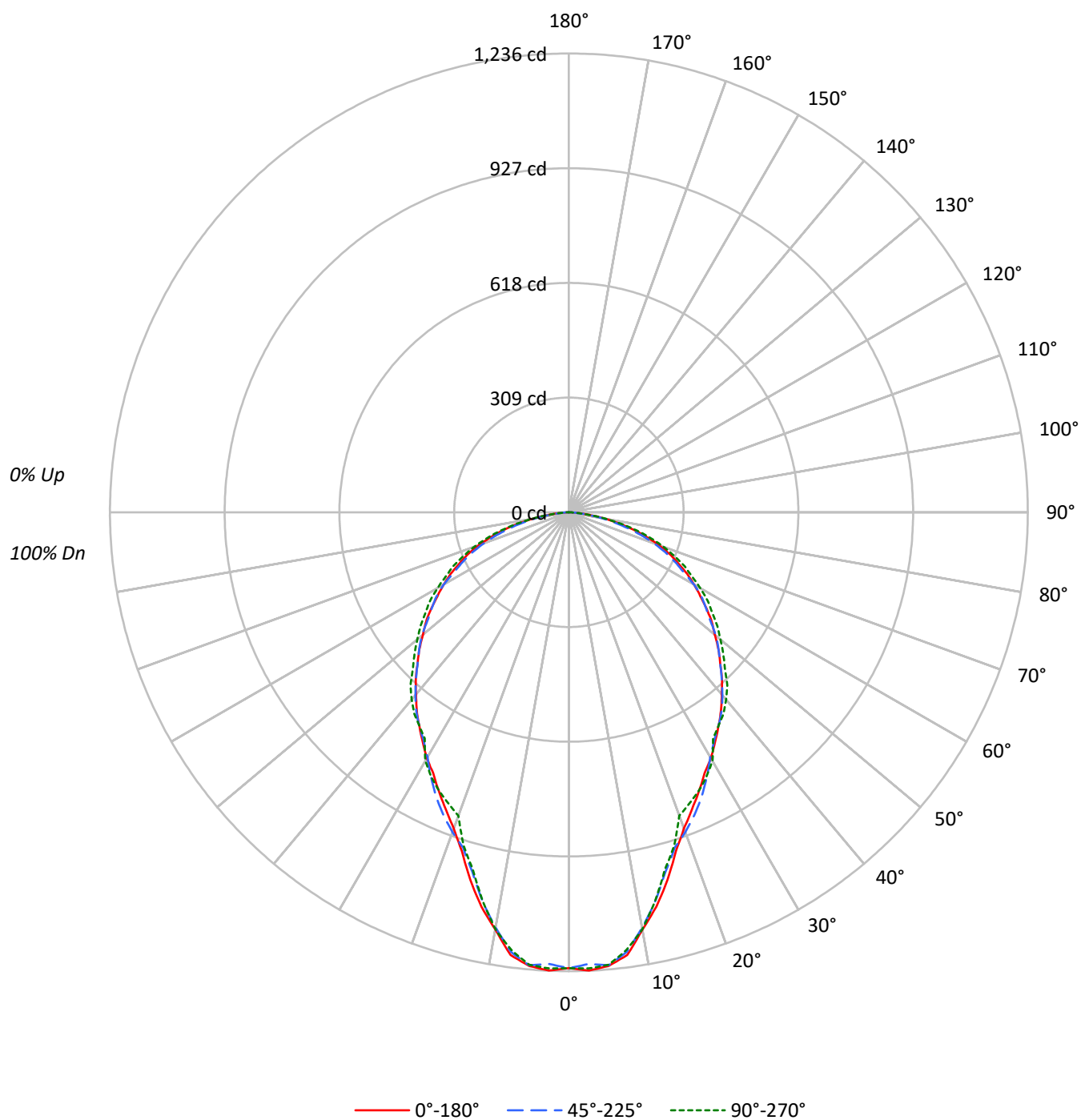
Lumens per Lamp: N/A
Luminaire Lumens: 2625.9 lumens
Efficiency: N/A
Efficacy: 59.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 44
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°	3304	3304	3304
5°	3313	3308	3305
10°	3118	3104	3116
15°	2857	2795	2778
20°	2594	2624	2490
25°	2461	2510	2457
30°	2377	2367	2403
35°	2307	2307	2307
40°	2250	2259	2315
45°	2194	2192	2260
50°	2146	2163	2229
55°	2124	2115	2211
60°	2096	2093	2199
65°	2069	2004	2187
70°	2030	1914	2130
75°	1879	1700	1971
80°	1523	1385	1564
85°	966	868	849



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.0	4.3
10°-20°	285.1	10.9
20°-30°	385.0	14.7
30°-40°	440.9	16.8
40°-50°	451.6	17.2
50°-60°	409.8	15.6
60°-70°	319.8	12.2
70°-80°	181.4	6.9
80°-90°	38.1	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°	784.2	29.9
0°-40°	1225.1	46.7
0°-60°	2086.6	79.5
0°-90°	2625.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2625.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1228	1228	1228	1228	1228	
5°	1227	1212	1225	1227	1223	115
15°	1025	1029	1003	1008	997	287
25°	829	840	845	825	828	382
35°	702	704	702	703	702	440
45°	577	581	576	600	594	446
55°	453	452	451	467	471	405
65°	325	318	315	330	344	322
75°	181	167	164	173	190	189
85°	31	28	28	26	28	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1227.8	1227.8	1227.8	1227.8	1227.8
2.5°	1235.5	1225.9	1217.6	1231.0	1229.8
5°	1226.6	1212.5	1224.7	1227.2	1223.4
7.5°	1202.9	1194.0	1194.6	1189.5	1188.9
10°	1141.0	1146.1	1135.9	1144.8	1140.4
12.5°	1088.0	1091.2	1073.3	1077.2	1072.1
15°	1025.4	1028.6	1003.1	1008.2	997.3
17.5°	957.1	968.6	947.5	953.9	942.4
20°	906.0	915.6	916.3	906.0	869.6
22.5°	865.8	875.4	883.1	852.4	848.6
25°	828.8	839.6	845.4	825.0	827.5
27.5°	791.7	803.9	803.9	808.4	802.6
30°	764.9	770.0	761.7	778.3	773.2
32.5°	733.0	734.9	727.9	740.0	722.2
35°	702.4	703.6	702.4	703.0	702.4
37.5°	673.0	669.8	675.5	671.7	683.8
40°	640.4	640.4	643.0	649.4	658.9
42.5°	610.4	613.0	609.8	627.7	631.5
45°	576.6	581.0	575.9	599.6	593.8
47.5°	545.9	547.8	546.6	562.5	563.8
50°	512.7	515.3	516.6	530.6	532.5
52.5°	485.3	484.6	480.2	500.6	503.8
55°	452.7	452.1	450.8	466.7	471.2
57.5°	419.5	420.1	423.3	432.3	443.1
60°	389.5	386.3	388.9	399.7	408.6
62.5°	358.8	353.1	347.3	365.2	373.5
65°	325.0	318.0	314.8	329.5	343.5
67.5°	293.7	282.2	280.3	290.5	307.1
70°	258.0	243.9	243.3	250.9	270.7
72.5°	218.4	206.2	203.0	213.3	231.1
75°	180.7	167.3	163.5	173.0	189.6
77.5°	139.8	129.0	126.4	131.5	144.9
80°	98.3	91.9	89.4	91.3	100.9
82.5°	61.9	57.5	56.2	55.6	60.7
85°	31.3	28.1	28.1	26.2	27.5
87.5°	9.6	8.9	8.3	6.4	7.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)