

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: FAIL-SAFE

Report Number: P563287

Luminaire Tested: FSR-24-4-LD4-3LO-35-UNV-82-87-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563287
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-4-LD4-3LO-35-UNV-82-87-EDD
Description: 2X4 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

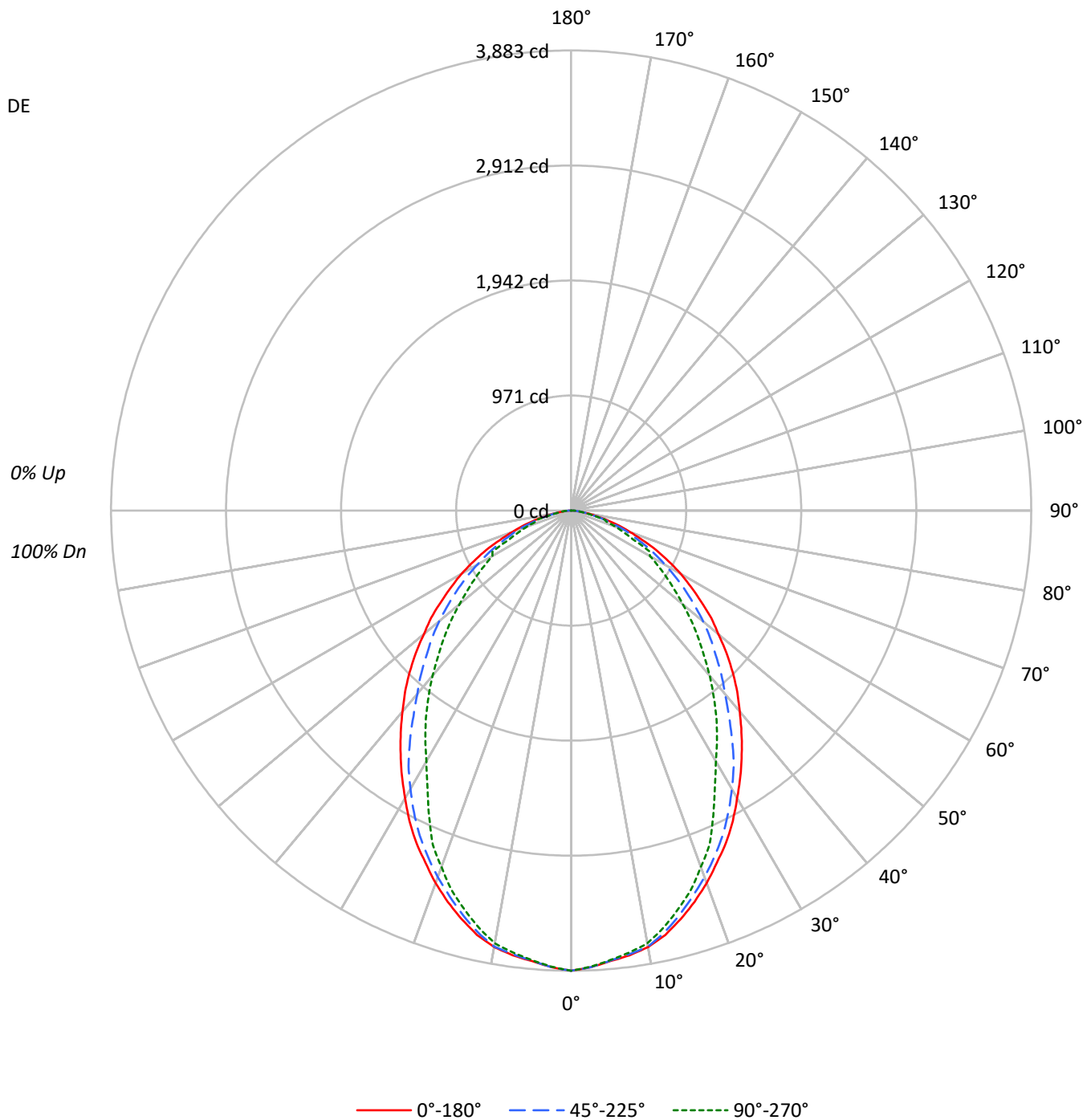
Lumens per Lamp: N/A
Luminaire Lumens: 7623.0 lumens
Efficiency: N/A
Efficacy: 108.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
Input Voltage (V):
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: 24 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	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5225	5225	5225
5°	5154	5148	5141
10°	5109	5103	5066
15°	4971	4921	4852
20°	4789	4711	4583
25°	4592	4492	4212
30°	4352	4213	3794
35°	4122	3893	3510
40°	3887	3548	3193
45°	3664	3280	2887
50°	3392	3045	2575
55°	3138	2759	2306
60°	2875	2464	2066
65°	2530	2158	1829
70°	2084	1889	1554
75°	1657	1447	1517
80°	1113	1044	974
85°	693	832	969

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3664 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	361.5	4.7
10°-20°	992.0	13.0
20°-30°	1373.4	18.0
30°-40°	1464.4	19.2
40°-50°	1336.0	17.5
50°-60°	1046.6	13.7
60°-70°	682.1	8.9
70°-80°	302.2	4.0
80°-90°	64.9	0.9
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°	2726.8	35.8
0°-40°	4191.2	55.0
0°-60°	6573.8	86.2
0°-90°	7623.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7623.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3883	3883	3883	3883	3883	
5°	3816	3811	3811	3807	3807	362
15°	3569	3569	3533	3497	3484	1003
25°	3093	3075	3026	2918	2837	1420
35°	2509	2491	2370	2191	2137	1569
45°	1926	1885	1724	1580	1517	1483
55°	1338	1297	1176	1037	983	1200
65°	795	750	678	691	575	783
75°	319	296	278	265	292	342
85°	45	49	54	58	63	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3883.1	3883.1	3883.1	3883.1	3883.1
2.5°	3856.1	3856.1	3856.1	3851.6	3851.6
5°	3815.7	3811.2	3811.2	3806.7	3806.7
7.5°	3784.3	3779.8	3775.3	3770.8	3761.8
10°	3739.4	3739.4	3734.9	3712.5	3708.0
12.5°	3667.6	3663.1	3645.1	3613.7	3604.7
15°	3568.8	3568.8	3532.9	3497.0	3483.5
17.5°	3461.1	3456.6	3411.7	3375.8	3357.8
20°	3344.4	3335.4	3290.5	3232.1	3200.7
22.5°	3214.2	3214.2	3160.3	3084.0	3052.6
25°	3093.0	3075.0	3025.6	2917.9	2837.1
27.5°	2953.8	2926.9	2873.0	2720.4	2626.1
30°	2801.2	2787.7	2711.4	2513.9	2442.1
32.5°	2657.5	2635.1	2554.3	2347.8	2289.4
35°	2509.4	2491.4	2370.2	2190.7	2136.8
37.5°	2361.3	2338.8	2186.2	2042.5	1975.2
40°	2213.1	2186.2	2020.1	1889.9	1818.1
42.5°	2074.0	2038.0	1876.4	1737.3	1656.5
45°	1925.8	1885.4	1723.8	1580.2	1517.3
47.5°	1777.7	1741.8	1593.6	1445.5	1373.7
50°	1620.6	1589.1	1454.5	1306.3	1230.0
52.5°	1490.4	1441.0	1310.8	1162.7	1099.8
55°	1337.7	1297.3	1176.1	1037.0	983.1
57.5°	1198.6	1158.2	1046.0	915.8	870.9
60°	1068.4	1010.0	915.8	803.5	767.6
62.5°	924.8	879.9	799.1	704.8	749.7
65°	794.6	749.7	677.9	691.3	574.6
67.5°	650.9	628.5	565.6	502.8	484.8
70°	529.7	502.8	480.3	413.0	395.0
72.5°	422.0	395.0	363.6	327.7	314.2
75°	318.7	296.3	278.3	264.9	291.8
77.5°	220.0	211.0	197.5	184.1	179.6
80°	143.7	139.2	134.7	130.2	125.7
82.5°	85.3	85.3	85.3	85.3	85.3
85°	44.9	49.4	53.9	58.4	62.8
87.5°	26.9	26.9	31.4	35.9	40.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)