

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: P562109

Luminaire Tested: FSR-24-4-LD4-1HI-50-UNV-80-96-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562109
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-LD4-1HI-50-UNV-80-96-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4873.0 lumens
Efficiency: N/A
Efficacy: 112.8 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

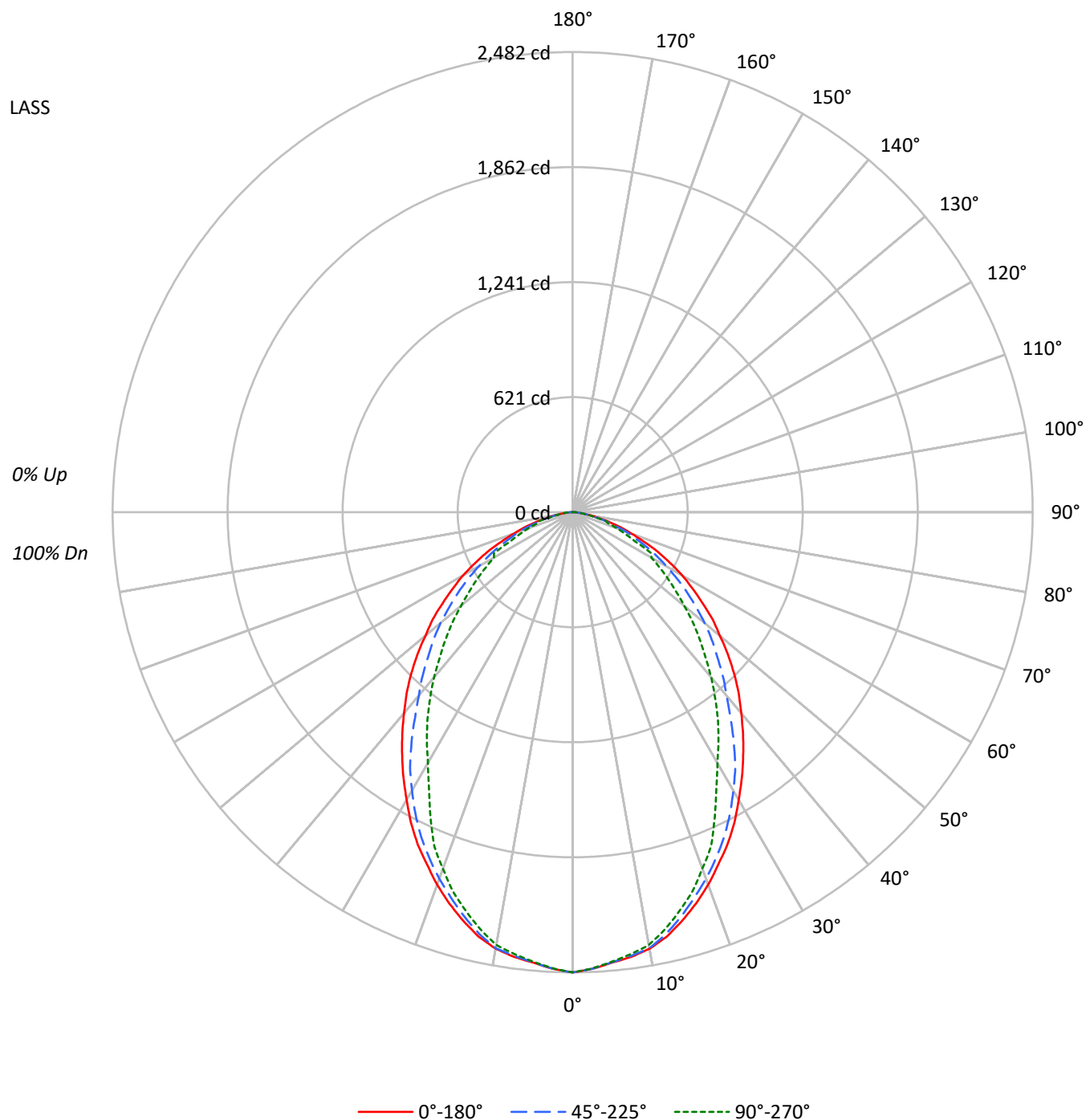
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P562109

CATALOG NUMBER: FSR-24-4-LD4-1HI-50-UNV-80-96-EDD

Luminous Intensity Polar Plot



TEST NUMBER: P562109

CATALOG NUMBER: FSR-24-4-LD4-1HI-50-UNV-80-96-EDD

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	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°	3340	3340	3340
5°	3294	3291	3287
10°	3266	3262	3238
15°	3178	3146	3102
20°	3061	3012	2930
25°	2935	2871	2692
30°	2782	2693	2425
35°	2635	2489	2244
40°	2485	2268	2041
45°	2343	2097	1846
50°	2168	1946	1646
55°	2006	1764	1474
60°	1838	1575	1320
65°	1617	1379	1169
70°	1332	1208	993
75°	1059	925	970
80°	711	667	623
85°	443	531	621

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2343 cd/sqm

TEST NUMBER: P562109

CATALOG NUMBER: FSR-24-4-LD4-1HI-50-UNV-80-96-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	231.1	4.7
10°-20°	634.1	13.0
20°-30°	877.9	18.0
30°-40°	936.1	19.2
40°-50°	854.0	17.5
50°-60°	669.0	13.7
60°-70°	436.1	8.9
70°-80°	193.2	4.0
80°-90°	41.5	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°	1743.1	35.8
0°-40°	2679.2	55.0
0°-60°	4202.3	86.2
0°-90°	4873.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4873.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2482	2482	2482	2482	2482	
5°	2439	2436	2436	2434	2434	232
15°	2281	2281	2258	2236	2227	641
25°	1977	1966	1934	1865	1814	908
35°	1604	1593	1515	1400	1366	1003
45°	1231	1205	1102	1010	970	948
55°	855	829	752	663	628	767
65°	508	479	433	442	367	501
75°	204	189	178	169	186	218
85°	29	32	34	37	40	40
90°	0	0	0	0	0	

TEST NUMBER: P562109

CATALOG NUMBER: FSR-24-4-LD4-1HI-50-UNV-80-96-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2482.2	2482.2	2482.2	2482.2	2482.2
2.5°	2465.0	2465.0	2465.0	2462.2	2462.2
5°	2439.2	2436.3	2436.3	2433.5	2433.5
7.5°	2419.1	2416.2	2413.4	2410.5	2404.8
10°	2390.4	2390.4	2387.5	2373.2	2370.3
12.5°	2344.5	2341.6	2330.2	2310.1	2304.3
15°	2281.4	2281.4	2258.4	2235.5	2226.8
17.5°	2212.5	2209.6	2180.9	2158.0	2146.5
20°	2137.9	2132.1	2103.4	2066.1	2046.1
22.5°	2054.7	2054.7	2020.2	1971.4	1951.4
25°	1977.2	1965.7	1934.1	1865.3	1813.6
27.5°	1888.2	1871.0	1836.6	1739.0	1678.7
30°	1790.7	1782.0	1733.3	1607.0	1561.1
32.5°	1698.8	1684.5	1632.8	1500.8	1463.5
35°	1604.1	1592.7	1515.2	1400.4	1366.0
37.5°	1509.4	1495.1	1397.5	1305.7	1262.6
40°	1414.7	1397.5	1291.3	1208.1	1162.2
42.5°	1325.8	1302.8	1199.5	1110.6	1058.9
45°	1231.1	1205.3	1101.9	1010.1	969.9
47.5°	1136.4	1113.4	1018.7	924.0	878.1
50°	1035.9	1015.9	929.8	835.1	786.3
52.5°	952.7	921.2	837.9	743.2	703.1
55°	855.2	829.3	751.8	662.9	628.5
57.5°	766.2	740.4	668.6	585.4	556.7
60°	683.0	645.7	585.4	513.7	490.7
62.5°	591.1	562.5	510.8	450.5	479.2
65°	507.9	479.2	433.3	441.9	367.3
67.5°	416.1	401.8	361.6	321.4	309.9
70°	338.6	321.4	307.1	264.0	252.5
72.5°	269.7	252.5	232.4	209.5	200.9
75°	203.7	189.4	177.9	169.3	186.5
77.5°	140.6	134.9	126.3	117.7	114.8
80°	91.8	89.0	86.1	83.2	80.4
82.5°	54.5	54.5	54.5	54.5	54.5
85°	28.7	31.6	34.4	37.3	40.2
87.5°	17.2	17.2	20.1	23.0	25.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)