

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: P560471

Luminaire Tested: FSR-12-2-LD4-2LO-40-UNV-82-87-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560471
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-12-2-LD4-2LO-40-UNV-82-87-EDD
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

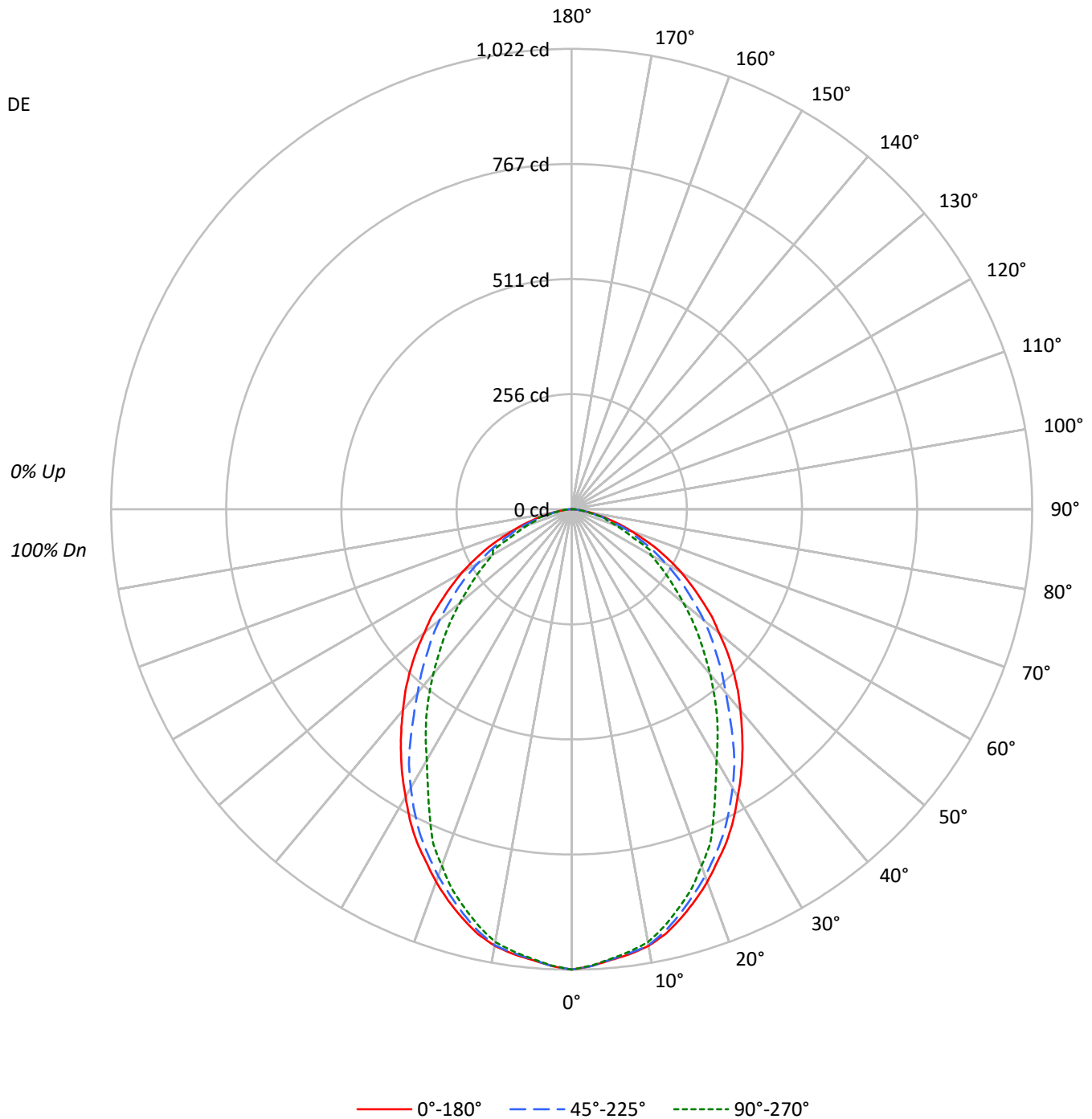
Lumens per Lamp: N/A
Luminaire Lumens: 2006.0 lumens
Efficiency: N/A
Efficacy: 85.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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: P560471
CATALOG NUMBER: FSR-12-2-LD4-2LO-40-UNV-82-87-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P560471

CATALOG NUMBER: FSR-12-2-LD4-2LO-40-UNV-82-87-EDD

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	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°	5499	5499	5499
5°	5425	5418	5412
10°	5378	5371	5333
15°	5232	5180	5108
20°	5041	4959	4824
25°	4833	4728	4434
30°	4581	4434	3993
35°	4338	4098	3694
40°	4092	3735	3361
45°	3857	3452	3039
50°	3571	3204	2710
55°	3303	2904	2427
60°	3027	2594	2174
65°	2663	2272	1926
70°	2194	1989	1637
75°	1745	1522	1597
80°	1172	1097	1026
85°	729	877	1019

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3857 cd/sqm



TEST NUMBER: P560471

CATALOG NUMBER: FSR-12-2-LD4-2LO-40-UNV-82-87-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.1	4.7
10°-20°	261.0	13.0
20°-30°	361.4	18.0
30°-40°	385.4	19.2
40°-50°	351.6	17.5
50°-60°	275.4	13.7
60°-70°	179.5	8.9
70°-80°	79.5	4.0
80°-90°	17.1	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°	717.6	35.8
0°-40°	1102.9	55.0
0°-60°	1729.9	86.2
0°-90°	2006.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2006.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1022	1022	1022	1022	1022	
5°	1004	1003	1003	1002	1002	95
15°	939	939	930	920	917	264
25°	814	809	796	768	747	374
35°	660	656	624	576	562	413
45°	507	496	454	416	399	390
55°	352	341	310	273	259	316
65°	209	197	178	182	151	206
75°	84	78	73	70	77	90
85°	12	13	14	15	16	16
90°	0	0	0	0	0	



TEST NUMBER: P560471

CATALOG NUMBER: FSR-12-2-LD4-2LO-40-UNV-82-87-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1021.8	1021.8	1021.8	1021.8	1021.8
2.5°	1014.7	1014.7	1014.7	1013.6	1013.6
5°	1004.1	1002.9	1002.9	1001.7	1001.7
7.5°	995.8	994.7	993.5	992.3	989.9
10°	984.0	984.0	982.8	976.9	975.8
12.5°	965.1	963.9	959.2	951.0	948.6
15°	939.1	939.1	929.7	920.2	916.7
17.5°	910.8	909.6	897.8	888.3	883.6
20°	880.1	877.7	865.9	850.5	842.3
22.5°	845.8	845.8	831.6	811.6	803.3
25°	813.9	809.2	796.2	767.8	746.6
27.5°	777.3	770.2	756.0	715.9	691.1
30°	737.1	733.6	713.5	661.5	642.6
32.5°	699.3	693.4	672.2	617.8	602.5
35°	660.3	655.6	623.7	576.5	562.3
37.5°	621.4	615.5	575.3	537.5	519.8
40°	582.4	575.3	531.6	497.3	478.4
42.5°	545.8	536.3	493.8	457.2	435.9
45°	506.8	496.1	453.6	415.8	399.3
47.5°	467.8	458.3	419.4	380.4	361.5
50°	426.5	418.2	382.7	343.8	323.7
52.5°	392.2	379.2	344.9	306.0	289.4
55°	352.0	341.4	309.5	272.9	258.7
57.5°	315.4	304.8	275.2	241.0	229.2
60°	281.2	265.8	241.0	211.5	202.0
62.5°	243.3	231.5	210.3	185.5	197.3
65°	209.1	197.3	178.4	181.9	151.2
67.5°	171.3	165.4	148.8	132.3	127.6
70°	139.4	132.3	126.4	108.7	104.0
72.5°	111.0	104.0	95.7	86.2	82.7
75°	83.9	78.0	73.2	69.7	76.8
77.5°	57.9	55.5	52.0	48.4	47.3
80°	37.8	36.6	35.4	34.3	33.1
82.5°	22.4	22.4	22.4	22.4	22.4
85°	11.8	13.0	14.2	15.4	16.5
87.5°	7.1	7.1	8.3	9.5	10.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)