

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: P560151

Luminaire Tested: FSR-12-2-LD4-1STD-50-UNV-82-87-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560151
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-LD4-1STD-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

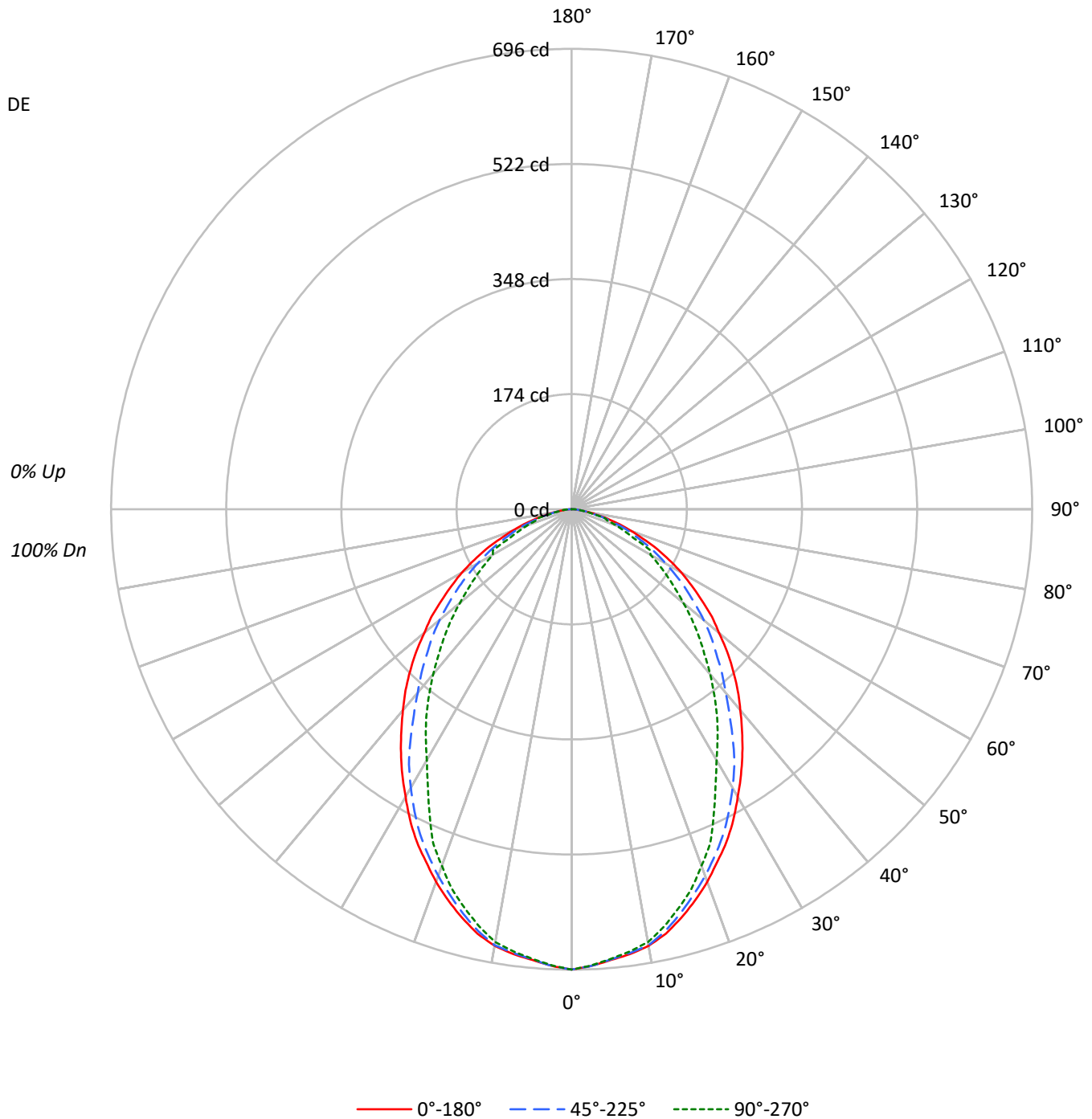
Lumens per Lamp: N/A
Luminaire Lumens: 1366.0 lumens
Efficiency: N/A
Efficacy: 82.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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: P560151
CATALOG NUMBER: FSR-12-2-LD4-1STD-50-UNV-82-87-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P560151

CATALOG NUMBER: FSR-12-2-LD4-1STD-50-UNV-82-87-EDD

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	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	100	100	100	100	100	100		
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87	87	87	87	87	87	87		
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75	75	75	75	75	75	75		
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65	65	65	65	65	65	65		
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56	56	56	56	56	56	56		
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50	50	50	50	50	50	50		
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44	44	44	44	44	44	44		
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40	40	40	40	40	40	40		
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36	36	36	36	36	36	36		
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33	33	33	33	33	33	33		
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30	30	30	30	30	30	30		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3745	3745	3745
5°	3694	3690	3685
10°	3662	3658	3631
15°	3563	3528	3478
20°	3432	3377	3285
25°	3291	3220	3019
30°	3120	3020	2719
35°	2955	2790	2516
40°	2786	2543	2289
45°	2627	2351	2069
50°	2431	2182	1845
55°	2249	1978	1653
60°	2061	1766	1481
65°	1813	1547	1312
70°	1493	1355	1114
75°	1187	1038	1088
80°	797	747	697
85°	494	599	698

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2627 cd/sqm



TEST NUMBER: P560151

CATALOG NUMBER: FSR-12-2-LD4-1STD-50-UNV-82-87-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.8	4.7
10°-20°	177.8	13.0
20°-30°	246.1	18.0
30°-40°	262.4	19.2
40°-50°	239.4	17.5
50°-60°	187.5	13.7
60°-70°	122.2	8.9
70°-80°	54.2	4.0
80°-90°	11.6	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°	488.6	35.8
0°-40°	751.0	55.0
0°-60°	1178.0	86.2
0°-90°	1366.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1366.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	696	696	696	696	696	
5°	684	683	683	682	682	65
15°	640	640	633	627	624	180
25°	554	551	542	523	508	254
35°	450	446	425	393	383	281
45°	345	338	309	283	272	266
55°	240	232	211	186	176	215
65°	142	134	122	124	103	140
75°	57	53	50	48	52	61
85°	8	9	10	10	11	11
90°	0	0	0	0	0	



TEST NUMBER: P560151

CATALOG NUMBER: FSR-12-2-LD4-1STD-50-UNV-82-87-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	695.8	695.8	695.8	695.8	695.8
2.5°	691.0	691.0	691.0	690.2	690.2
5°	683.8	683.0	683.0	682.1	682.1
7.5°	678.1	677.3	676.5	675.7	674.1
10°	670.1	670.1	669.3	665.3	664.4
12.5°	657.2	656.4	653.2	647.6	645.9
15°	639.5	639.5	633.1	626.6	624.2
17.5°	620.2	619.4	611.4	604.9	601.7
20°	599.3	597.7	589.6	579.2	573.6
22.5°	576.0	576.0	566.3	552.6	547.0
25°	554.2	551.0	542.2	522.9	508.4
27.5°	529.3	524.5	514.8	487.5	470.6
30°	502.0	499.5	485.9	450.5	437.6
32.5°	476.2	472.2	457.7	420.7	410.3
35°	449.7	446.5	424.7	392.6	382.9
37.5°	423.1	419.1	391.8	366.0	353.9
40°	396.6	391.8	362.0	338.7	325.8
42.5°	371.6	365.2	336.2	311.3	296.8
45°	345.1	337.9	308.9	283.2	271.9
47.5°	318.5	312.1	285.6	259.0	246.2
50°	290.4	284.8	260.6	234.1	220.4
52.5°	267.1	258.2	234.9	208.3	197.1
55°	239.7	232.5	210.8	185.8	176.2
57.5°	214.8	207.5	187.4	164.1	156.1
60°	191.5	181.0	164.1	144.0	137.6
62.5°	165.7	157.7	143.2	126.3	134.3
65°	142.4	134.3	121.5	123.9	103.0
67.5°	116.6	112.6	101.4	90.1	86.9
70°	94.9	90.1	86.1	74.0	70.8
72.5°	75.6	70.8	65.2	58.7	56.3
75°	57.1	53.1	49.9	47.5	52.3
77.5°	39.4	37.8	35.4	33.0	32.2
80°	25.7	24.9	24.1	23.3	22.5
82.5°	15.3	15.3	15.3	15.3	15.3
85°	8.0	8.8	9.7	10.5	11.3
87.5°	4.8	4.8	5.6	6.4	7.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)