

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: P559360

Luminaire Tested: FSR-12-1-LD4-2LO-50-UNV-81-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559360
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-12-1-LD4-2LO-50-UNV-81-84-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

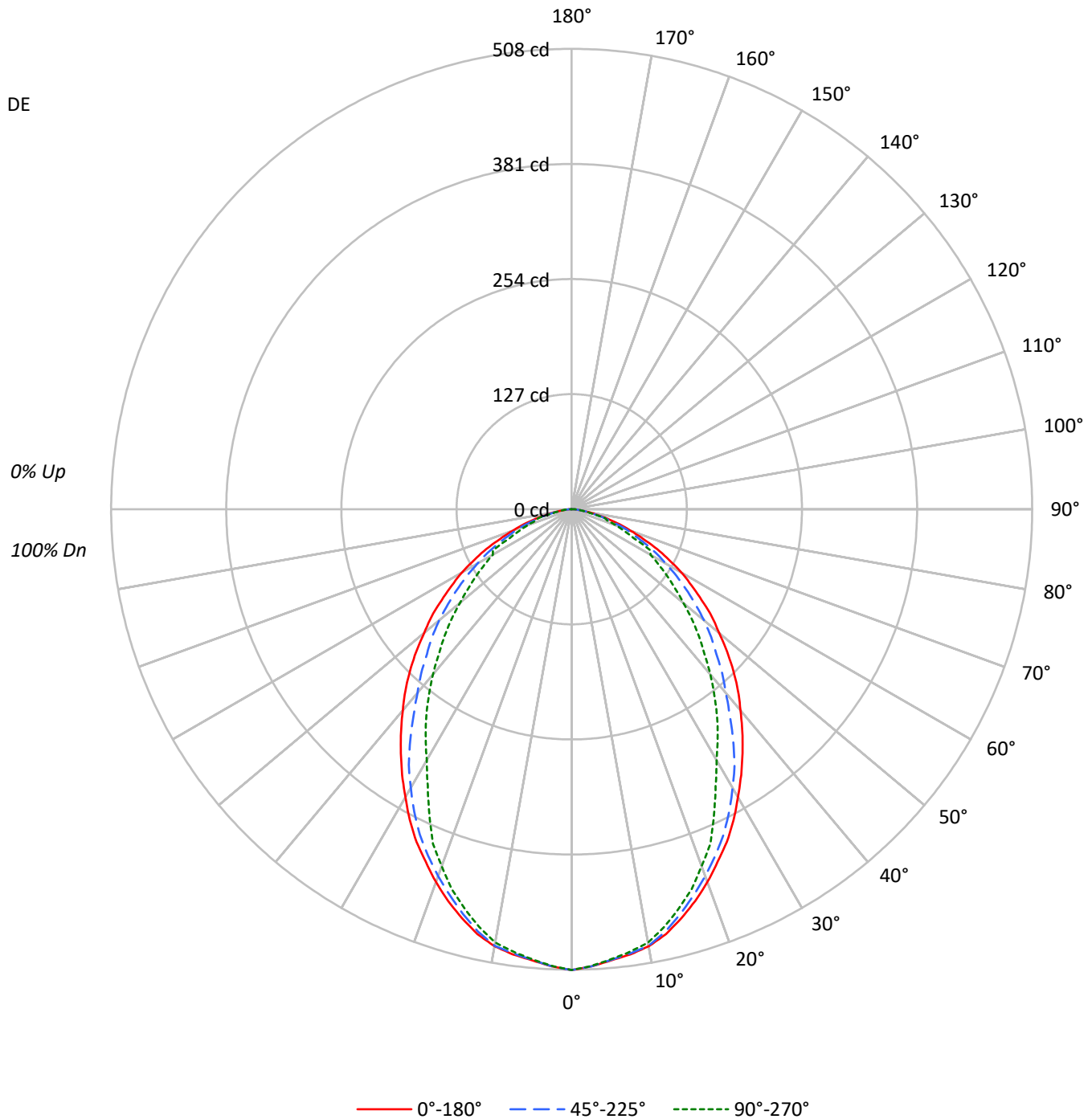
Lumens per Lamp: N/A
Luminaire Lumens: 998.0 lumens
Efficiency: N/A
Efficacy: 85.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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: P559360
CATALOG NUMBER: FSR-12-1-LD4-2LO-50-UNV-81-84-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P559360

CATALOG NUMBER: FSR-12-1-LD4-2LO-50-UNV-81-84-EDD-90

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5472	5472	5472
5°	5398	5392	5385
10°	5351	5345	5305
15°	5206	5154	5083
20°	5015	4935	4800
25°	4809	4704	4411
30°	4558	4412	3974
35°	4317	4077	3675
40°	4071	3717	3344
45°	3838	3436	3023
50°	3553	3188	2696
55°	3286	2890	2415
60°	3012	2581	2164
65°	2649	2259	1915
70°	2181	1980	1627
75°	1734	1514	1589
80°	1165	1091	1023
85°	729	877	1013

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3838 cd/sqm



TEST NUMBER: P559360

CATALOG NUMBER: FSR-12-1-LD4-2LO-50-UNV-81-84-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.3	4.7
10°-20°	129.9	13.0
20°-30°	179.8	18.0
30°-40°	191.7	19.2
40°-50°	174.9	17.5
50°-60°	137.0	13.7
60°-70°	89.3	8.9
70°-80°	39.6	4.0
80°-90°	8.5	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°	357.0	35.8
0°-40°	548.7	55.0
0°-60°	860.6	86.2
0°-90°	998.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	998.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	508	508	508	508	508	
5°	500	499	499	498	498	47
15°	467	467	462	458	456	131
25°	405	403	396	382	371	186
35°	328	326	310	287	280	205
45°	252	247	226	207	199	194
55°	175	170	154	136	129	157
65°	104	98	89	90	75	103
75°	42	39	36	35	38	45
85°	6	6	7	8	8	8
90°	0	0	0	0	0	



TEST NUMBER: P559360

CATALOG NUMBER: FSR-12-1-LD4-2LO-50-UNV-81-84-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	508.4	508.4	508.4	508.4	508.4
2.5°	504.8	504.8	504.8	504.3	504.3
5°	499.6	499.0	499.0	498.4	498.4
7.5°	495.4	494.9	494.3	493.7	492.5
10°	489.6	489.6	489.0	486.0	485.4
12.5°	480.2	479.6	477.2	473.1	471.9
15°	467.2	467.2	462.5	457.8	456.1
17.5°	453.1	452.5	446.7	442.0	439.6
20°	437.8	436.7	430.8	423.2	419.0
22.5°	420.8	420.8	413.7	403.8	399.6
25°	404.9	402.6	396.1	382.0	371.4
27.5°	386.7	383.2	376.1	356.2	343.8
30°	366.7	365.0	355.0	329.1	319.7
32.5°	347.9	345.0	334.4	307.4	299.7
35°	328.5	326.2	310.3	286.8	279.7
37.5°	309.1	306.2	286.2	267.4	258.6
40°	289.7	286.2	264.5	247.4	238.0
42.5°	271.5	266.8	245.7	227.4	216.9
45°	252.1	246.8	225.7	206.9	198.6
47.5°	232.7	228.0	208.6	189.2	179.8
50°	212.2	208.0	190.4	171.0	161.0
52.5°	195.1	188.7	171.6	152.2	144.0
55°	175.1	169.8	154.0	135.8	128.7
57.5°	156.9	151.6	136.9	119.9	114.0
60°	139.9	132.2	119.9	105.2	100.5
62.5°	121.1	115.2	104.6	92.3	98.1
65°	104.0	98.1	88.7	90.5	75.2
67.5°	85.2	82.3	74.1	65.8	63.5
70°	69.3	65.8	62.9	54.1	51.7
72.5°	55.2	51.7	47.6	42.9	41.1
75°	41.7	38.8	36.4	34.7	38.2
77.5°	28.8	27.6	25.9	24.1	23.5
80°	18.8	18.2	17.6	17.0	16.5
82.5°	11.2	11.2	11.2	11.2	11.2
85°	5.9	6.5	7.1	7.6	8.2
87.5°	3.5	3.5	4.1	4.7	5.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)