

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: P559749

Luminaire Tested: FSR-12-2-LD4-1HI-50-UNV-81-86-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559749
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-LD4-1HI-50-UNV-81-86-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1769.0 lumens
Efficiency: N/A
Efficacy: 81.9 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

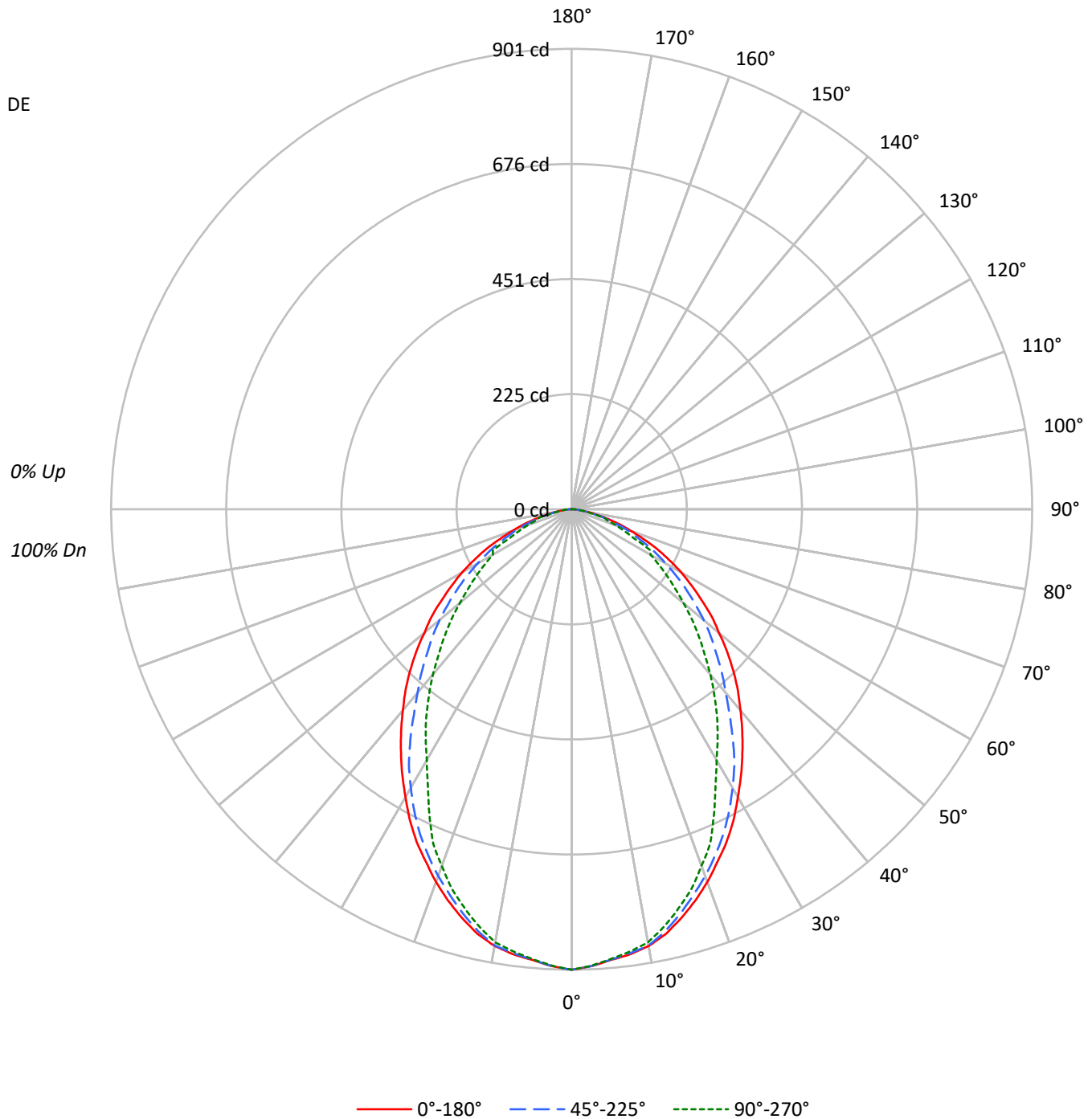
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P559749

CATALOG NUMBER: FSR-12-2-LD4-1HI-50-UNV-81-86-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P559749

CATALOG NUMBER: FSR-12-2-LD4-1HI-50-UNV-81-86-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°	4850	4850	4850
5°	4784	4778	4773
10°	4743	4737	4703
15°	4615	4568	4504
20°	4445	4373	4254
25°	4263	4169	3910
30°	4039	3910	3522
35°	3826	3614	3258
40°	3608	3294	2964
45°	3401	3044	2680
50°	3149	2826	2390
55°	2913	2561	2140
60°	2668	2287	1917
65°	2348	2003	1698
70°	1934	1755	1443
75°	1539	1343	1408
80°	1032	970	905
85°	642	772	902

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3401 cd/sqm



TEST NUMBER: P559749

CATALOG NUMBER: FSR-12-2-LD4-1HI-50-UNV-81-86-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.9	4.7
10°-20°	230.2	13.0
20°-30°	318.7	18.0
30°-40°	339.8	19.2
40°-50°	310.0	17.5
50°-60°	242.9	13.7
60°-70°	158.3	8.9
70°-80°	70.1	4.0
80°-90°	15.1	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°	632.8	35.8
0°-40°	972.6	55.0
0°-60°	1525.5	86.2
0°-90°	1769.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1769.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	901	901	901	901	901	
5°	886	884	884	883	883	84
15°	828	828	820	812	808	233
25°	718	714	702	677	658	330
35°	582	578	550	508	496	364
45°	447	438	400	367	352	344
55°	310	301	273	241	228	278
65°	184	174	157	160	133	182
75°	74	69	65	62	68	79
85°	10	12	12	14	15	14
90°	0	0	0	0	0	

TEST NUMBER: P559749

CATALOG NUMBER: FSR-12-2-LD4-1HI-50-UNV-81-86-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	901.1	901.1	901.1	901.1	901.1
2.5°	894.9	894.9	894.9	893.8	893.8
5°	885.5	884.4	884.4	883.4	883.4
7.5°	878.2	877.1	876.1	875.1	873.0
10°	867.8	867.8	866.7	861.5	860.5
12.5°	851.1	850.1	845.9	838.6	836.5
15°	828.2	828.2	819.8	811.5	808.4
17.5°	803.2	802.1	791.7	783.4	779.2
20°	776.1	774.0	763.6	750.1	742.8
22.5°	745.9	745.9	733.4	715.7	708.4
25°	717.8	713.6	702.1	677.1	658.4
27.5°	685.5	679.2	666.7	631.3	609.4
30°	650.0	646.9	629.2	583.4	566.7
32.5°	616.7	611.5	592.7	544.8	531.3
35°	582.3	578.2	550.0	508.4	495.9
37.5°	548.0	542.7	507.3	474.0	458.4
40°	513.6	507.3	468.8	438.6	421.9
42.5°	481.3	472.9	435.4	403.2	384.4
45°	446.9	437.5	400.0	366.7	352.1
47.5°	412.5	404.2	369.8	335.4	318.8
50°	376.1	368.8	337.5	303.1	285.4
52.5°	345.9	334.4	304.2	269.8	255.2
55°	310.4	301.1	272.9	240.6	228.1
57.5°	278.1	268.8	242.7	212.5	202.1
60°	247.9	234.4	212.5	186.5	178.1
62.5°	214.6	204.2	185.4	163.6	174.0
65°	184.4	174.0	157.3	160.4	133.3
67.5°	151.1	145.8	131.3	116.7	112.5
70°	122.9	116.7	111.5	95.8	91.7
72.5°	97.9	91.7	84.4	76.0	72.9
75°	74.0	68.8	64.6	61.5	67.7
77.5°	51.0	49.0	45.8	42.7	41.7
80°	33.3	32.3	31.3	30.2	29.2
82.5°	19.8	19.8	19.8	19.8	19.8
85°	10.4	11.5	12.5	13.5	14.6
87.5°	6.3	6.3	7.3	8.3	9.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)