

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: P559187

Luminaire Tested: FSR-12-1-LD4-2HI-50-UNV-82-85-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559187
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-LD4-2HI-50-UNV-82-85-EDD
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

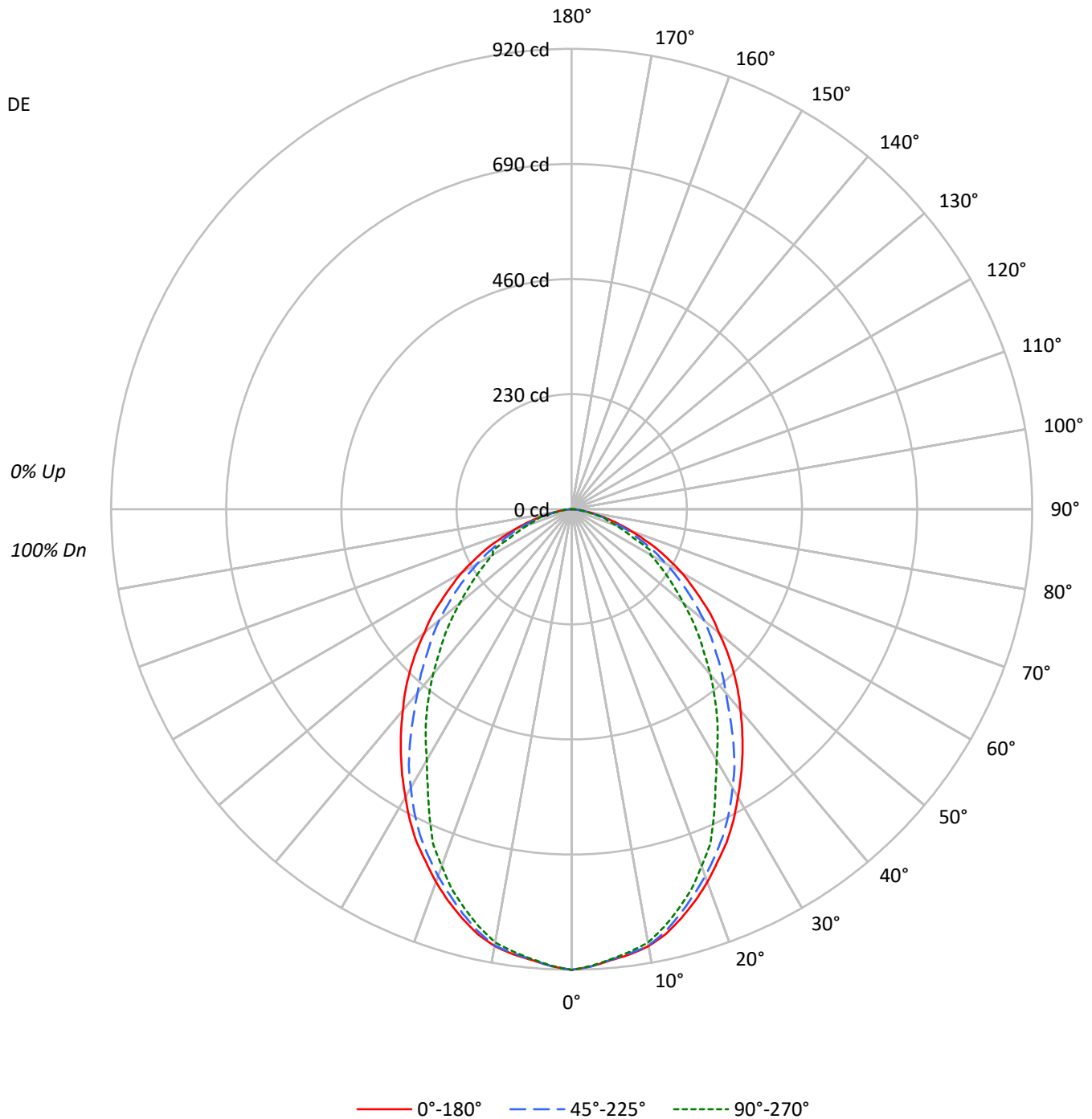
Lumens per Lamp: N/A
Luminaire Lumens: 1807.0 lumens
Efficiency: N/A
Efficacy: 83.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 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



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Luminous Intensity Polar Plot





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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°	9908	9908	9908
5°	9773	9761	9750
10°	9688	9676	9607
15°	9428	9333	9202
20°	9081	8935	8691
25°	8708	8518	7987
30°	8253	7988	7195
35°	7816	7384	6656
40°	7371	6729	6056
45°	6949	6220	5476
50°	6432	5774	4883
55°	5951	5232	4373
60°	5453	4674	3918
65°	4796	4093	3469
70°	3953	3585	2946
75°	3144	2745	2878
80°	2114	1977	1847
85°	1309	1581	1840

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6949 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.7	4.7
10°-20°	235.1	13.0
20°-30°	325.5	18.0
30°-40°	347.1	19.2
40°-50°	316.7	17.5
50°-60°	248.1	13.7
60°-70°	161.7	8.9
70°-80°	71.6	4.0
80°-90°	15.4	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°	646.4	35.8
0°-40°	993.5	55.0
0°-60°	1558.3	86.2
0°-90°	1807.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1807.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	920	920	920	920	920	
5°	904	903	903	902	902	86
15°	846	846	838	829	826	238
25°	733	729	717	692	672	337
35°	595	591	562	519	506	372
45°	456	447	409	375	360	352
55°	317	308	279	246	233	284
65°	188	178	161	164	136	186
75°	76	70	66	63	69	81
85°	11	12	13	14	15	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	920.5	920.5	920.5	920.5	920.5
2.5°	914.1	914.1	914.1	913.0	913.0
5°	904.5	903.4	903.4	902.4	902.4
7.5°	897.1	896.0	894.9	893.9	891.7
10°	886.4	886.4	885.3	880.0	879.0
12.5°	869.4	868.3	864.1	856.6	854.5
15°	846.0	846.0	837.5	828.9	825.8
17.5°	820.4	819.4	808.7	800.2	796.0
20°	792.8	790.6	780.0	766.2	758.7
22.5°	761.9	761.9	749.1	731.0	723.6
25°	733.2	728.9	717.2	691.7	672.5
27.5°	700.2	693.8	681.0	644.9	622.5
30°	664.0	660.8	642.7	595.9	578.9
32.5°	630.0	624.6	605.5	556.5	542.7
35°	594.8	590.6	561.9	519.3	506.5
37.5°	559.7	554.4	518.2	484.2	468.2
40°	524.6	518.2	478.9	448.0	431.0
42.5°	491.6	483.1	444.8	411.8	392.7
45°	456.5	446.9	408.6	374.6	359.7
47.5°	421.4	412.9	377.8	342.6	325.6
50°	384.1	376.7	344.8	309.7	291.6
52.5°	353.3	341.6	310.7	275.6	260.7
55°	317.1	307.5	278.8	245.8	233.0
57.5°	284.1	274.5	247.9	217.1	206.4
60°	253.3	239.4	217.1	190.5	182.0
62.5°	219.2	208.6	189.4	167.1	177.7
65°	188.3	177.7	160.7	163.9	136.2
67.5°	154.3	149.0	134.1	119.2	114.9
70°	125.6	119.2	113.9	97.9	93.6
72.5°	100.0	93.6	86.2	77.7	74.5
75°	75.6	70.2	66.0	62.8	69.2
77.5°	52.1	50.0	46.8	43.6	42.6
80°	34.1	33.0	31.9	30.9	29.8
82.5°	20.2	20.2	20.2	20.2	20.2
85°	10.6	11.7	12.8	13.8	14.9
87.5°	6.4	6.4	7.4	8.5	9.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)