

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: P559770

Luminaire Tested: FSR-12-2-LD4-1HI-50-UNV-82-94-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559770
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-82-94-EDD-90
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1558.0 lumens
Efficiency: N/A
Efficacy: 72.1 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

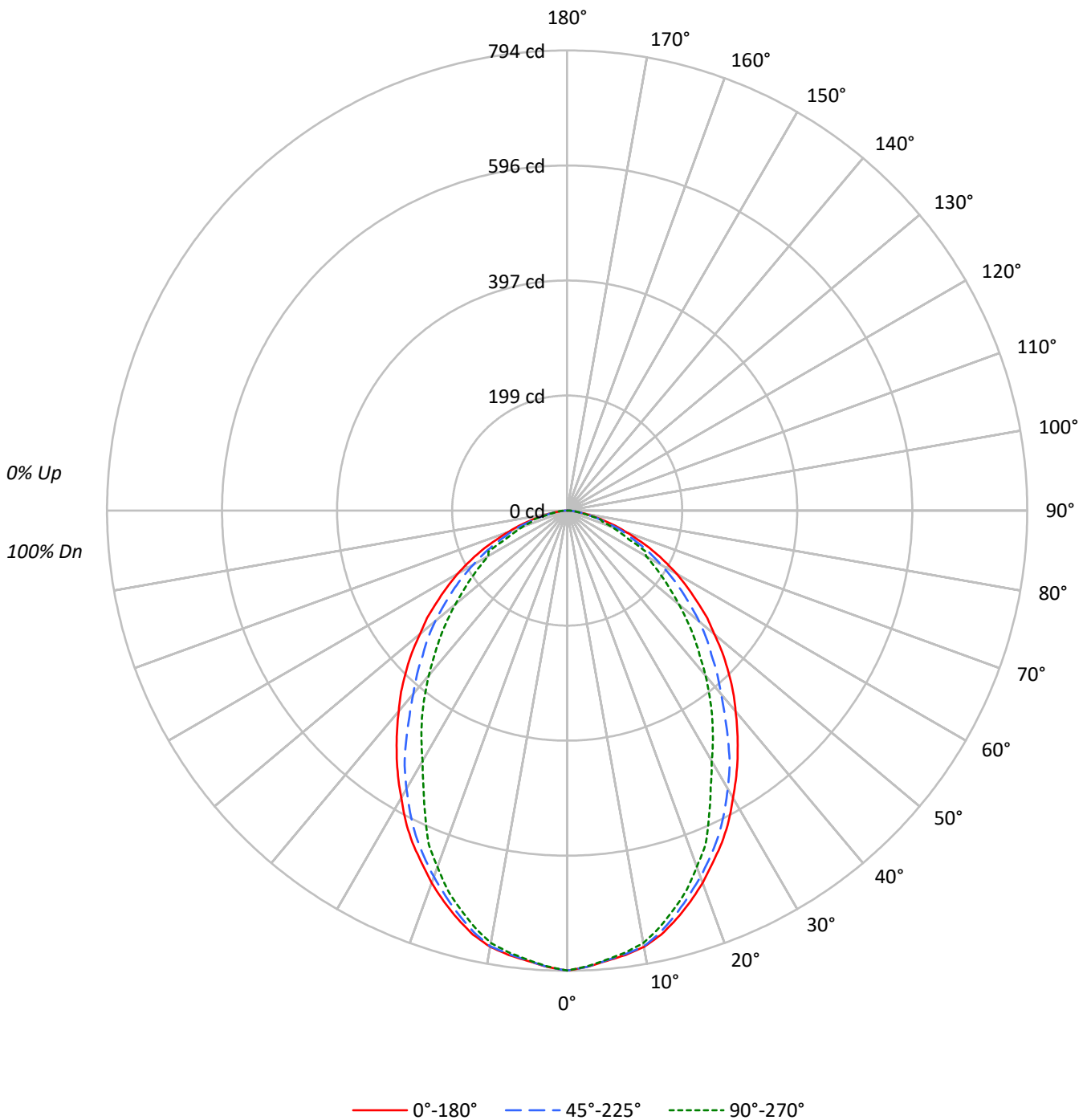
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	4271	4271	4271
5°	4213	4208	4203
10°	4177	4171	4141
15°	4064	4023	3967
20°	3915	3852	3747
25°	3754	3672	3444
30°	3558	3444	3102
35°	3370	3183	2869
40°	3178	2901	2611
45°	2996	2681	2360
50°	2773	2489	2105
55°	2565	2256	1885
60°	2351	2015	1689
65°	2068	1764	1495
70°	1704	1545	1270
75°	1354	1183	1239
80°	911	852	797
85°	568	679	790

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2996 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.9	4.7
10°-20°	202.7	13.0
20°-30°	280.7	18.0
30°-40°	299.3	19.2
40°-50°	273.0	17.5
50°-60°	213.9	13.7
60°-70°	139.4	8.9
70°-80°	61.8	4.0
80°-90°	13.2	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°	557.3	35.8
0°-40°	856.6	55.0
0°-60°	1343.6	86.2
0°-90°	1558.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1558.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	794	794	794	794	794	
5°	780	779	779	778	778	74
15°	729	729	722	715	712	205
25°	632	628	618	596	580	290
35°	513	509	484	448	437	321
45°	394	385	352	323	310	303
55°	273	265	240	212	201	245
65°	162	153	138	141	117	160
75°	65	61	57	54	60	70
85°	9	10	11	12	13	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	793.6	793.6	793.6	793.6	793.6
2.5°	788.1	788.1	788.1	787.2	787.2
5°	779.9	778.9	778.9	778.0	778.0
7.5°	773.4	772.5	771.6	770.7	768.9
10°	764.3	764.3	763.3	758.8	757.8
12.5°	749.6	748.7	745.0	738.6	736.7
15°	729.4	729.4	722.1	714.7	712.0
17.5°	707.4	706.5	697.3	689.9	686.3
20°	683.5	681.7	672.5	660.6	654.2
22.5°	656.9	656.9	645.9	630.3	623.9
25°	632.1	628.5	618.4	596.4	579.9
27.5°	603.7	598.2	587.2	556.0	536.7
30°	572.5	569.8	554.2	513.8	499.1
32.5°	543.2	538.6	522.0	479.8	467.9
35°	512.9	509.2	484.4	447.7	436.7
37.5°	482.6	478.0	446.8	417.5	403.7
40°	452.3	446.8	412.9	386.3	371.6
42.5°	423.9	416.5	383.5	355.1	338.6
45°	393.6	385.3	352.3	323.0	310.1
47.5°	363.3	356.0	325.7	295.4	280.8
50°	331.2	324.8	297.3	267.0	251.4
52.5°	304.6	294.5	267.9	237.6	224.8
55°	273.4	265.2	240.4	211.9	200.9
57.5°	245.0	236.7	213.8	187.2	178.0
60°	218.4	206.4	187.2	164.2	156.9
62.5°	189.0	179.8	163.3	144.0	153.2
65°	162.4	153.2	138.5	141.3	117.4
67.5°	133.0	128.4	115.6	102.8	99.1
70°	108.3	102.8	98.2	84.4	80.7
72.5°	86.2	80.7	74.3	67.0	64.2
75°	65.1	60.6	56.9	54.1	59.6
77.5°	45.0	43.1	40.4	37.6	36.7
80°	29.4	28.4	27.5	26.6	25.7
82.5°	17.4	17.4	17.4	17.4	17.4
85°	9.2	10.1	11.0	11.9	12.8
87.5°	5.5	5.5	6.4	7.3	8.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)