

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: P559698

Luminaire Tested: FSR-12-2-LD4-1HI-40-UNV-82-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559698
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-40-UNV-82-85-EDD-90
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1447.0 lumens
Efficiency: N/A
Efficacy: 67.0 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

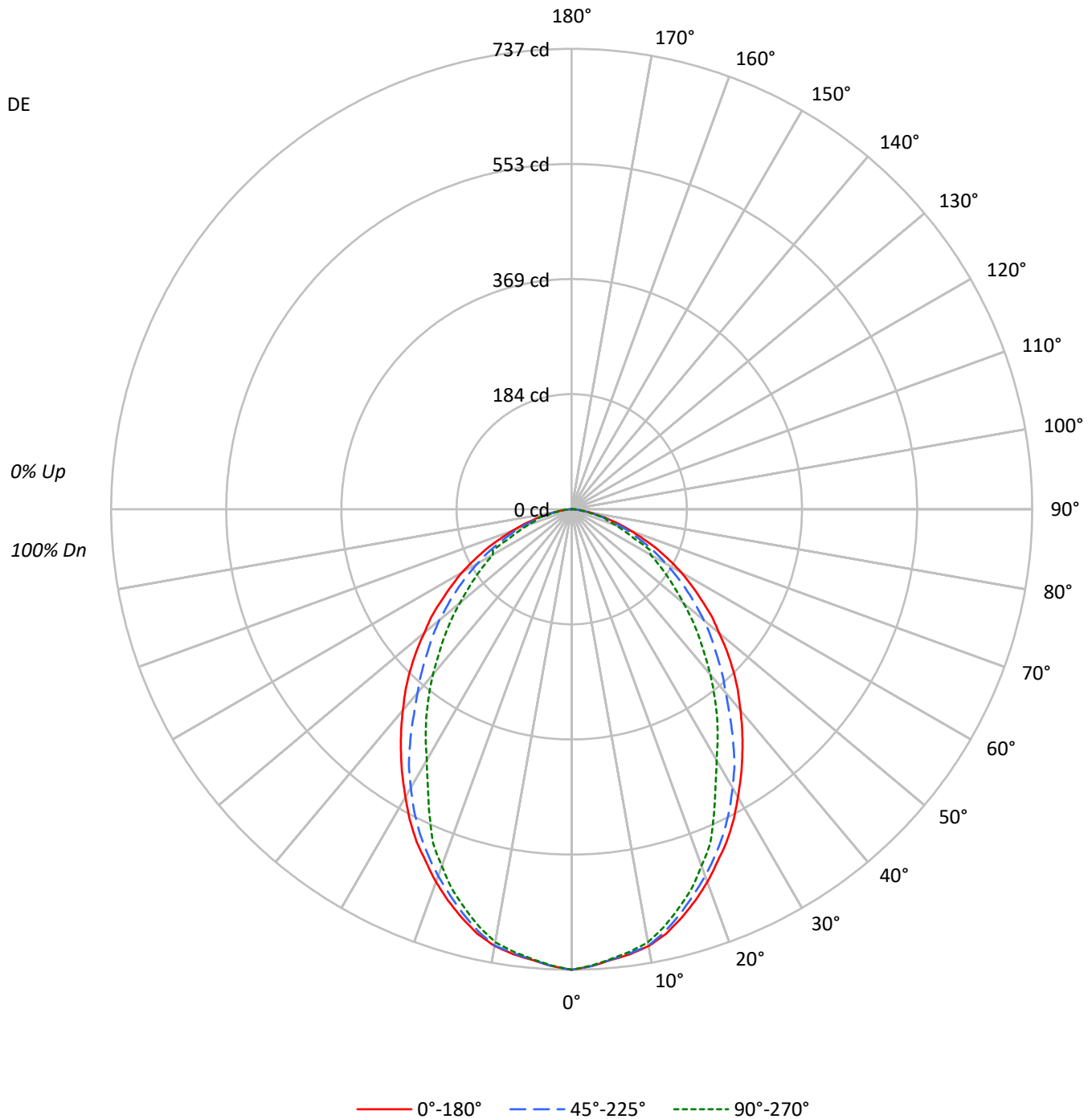
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3967	3967	3967
5°	3913	3908	3904
10°	3879	3875	3846
15°	3774	3736	3684
20°	3636	3577	3480
25°	3486	3410	3198
30°	3304	3199	2881
35°	3129	2956	2665
40°	2951	2694	2425
45°	2783	2490	2192
50°	2575	2312	1955
55°	2382	2095	1751
60°	2183	1871	1568
65°	1920	1639	1389
70°	1581	1435	1180
75°	1258	1098	1152
80°	846	793	741
85°	525	630	735

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2783 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.6	4.7
10°-20°	188.3	13.0
20°-30°	260.7	18.0
30°-40°	278.0	19.2
40°-50°	253.6	17.5
50°-60°	198.7	13.7
60°-70°	129.5	8.9
70°-80°	57.4	4.0
80°-90°	12.3	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°	517.6	35.8
0°-40°	795.6	55.0
0°-60°	1247.8	86.2
0°-90°	1447.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1447.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	737	737	737	737	737	
5°	724	723	723	723	723	69
15°	677	677	671	664	661	190
25°	587	584	574	554	538	270
35°	476	473	450	416	406	298
45°	366	358	327	300	288	282
55°	254	246	223	197	187	228
65°	151	142	129	131	109	149
75°	60	56	53	50	55	65
85°	8	9	10	11	12	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	737.1	737.1	737.1	737.1	737.1
2.5°	732.0	732.0	732.0	731.1	731.1
5°	724.3	723.4	723.4	722.6	722.6
7.5°	718.3	717.5	716.6	715.8	714.1
10°	709.8	709.8	709.0	704.7	703.8
12.5°	696.2	695.3	691.9	686.0	684.3
15°	677.4	677.4	670.6	663.8	661.2
17.5°	657.0	656.1	647.6	640.8	637.4
20°	634.8	633.1	624.6	613.5	607.6
22.5°	610.1	610.1	599.9	585.4	579.4
25°	587.1	583.7	574.3	553.9	538.5
27.5°	560.7	555.6	545.4	516.4	498.5
30°	531.7	529.2	514.7	477.2	463.6
32.5°	504.5	500.2	484.9	445.7	434.6
35°	476.3	472.9	449.9	415.8	405.6
37.5°	448.2	444.0	415.0	387.7	374.9
40°	420.1	415.0	383.5	358.7	345.1
42.5°	393.7	386.9	356.2	329.8	314.4
45°	365.6	357.9	327.2	299.9	288.0
47.5°	337.4	330.6	302.5	274.4	260.7
50°	307.6	301.6	276.1	248.0	233.5
52.5°	282.9	273.5	248.8	220.7	208.8
55°	253.9	246.3	223.3	196.8	186.6
57.5°	227.5	219.8	198.5	173.8	165.3
60°	202.8	191.7	173.8	152.5	145.7
62.5°	175.5	167.0	151.7	133.8	142.3
65°	150.8	142.3	128.7	131.2	109.1
67.5°	123.6	119.3	107.4	95.4	92.0
70°	100.5	95.4	91.2	78.4	75.0
72.5°	80.1	75.0	69.0	62.2	59.6
75°	60.5	56.2	52.8	50.3	55.4
77.5°	41.8	40.0	37.5	34.9	34.1
80°	27.3	26.4	25.6	24.7	23.9
82.5°	16.2	16.2	16.2	16.2	16.2
85°	8.5	9.4	10.2	11.1	11.9
87.5°	5.1	5.1	6.0	6.8	7.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)