

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: P589897

Luminaire Tested: FSR-24-2-LD4-1HI-40-UNV-82-88-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P589897
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-2-LD4-1HI-40-UNV-82-88-EDD
Description: 2X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1898.0 lumens
Efficiency: N/A
Efficacy: 87.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

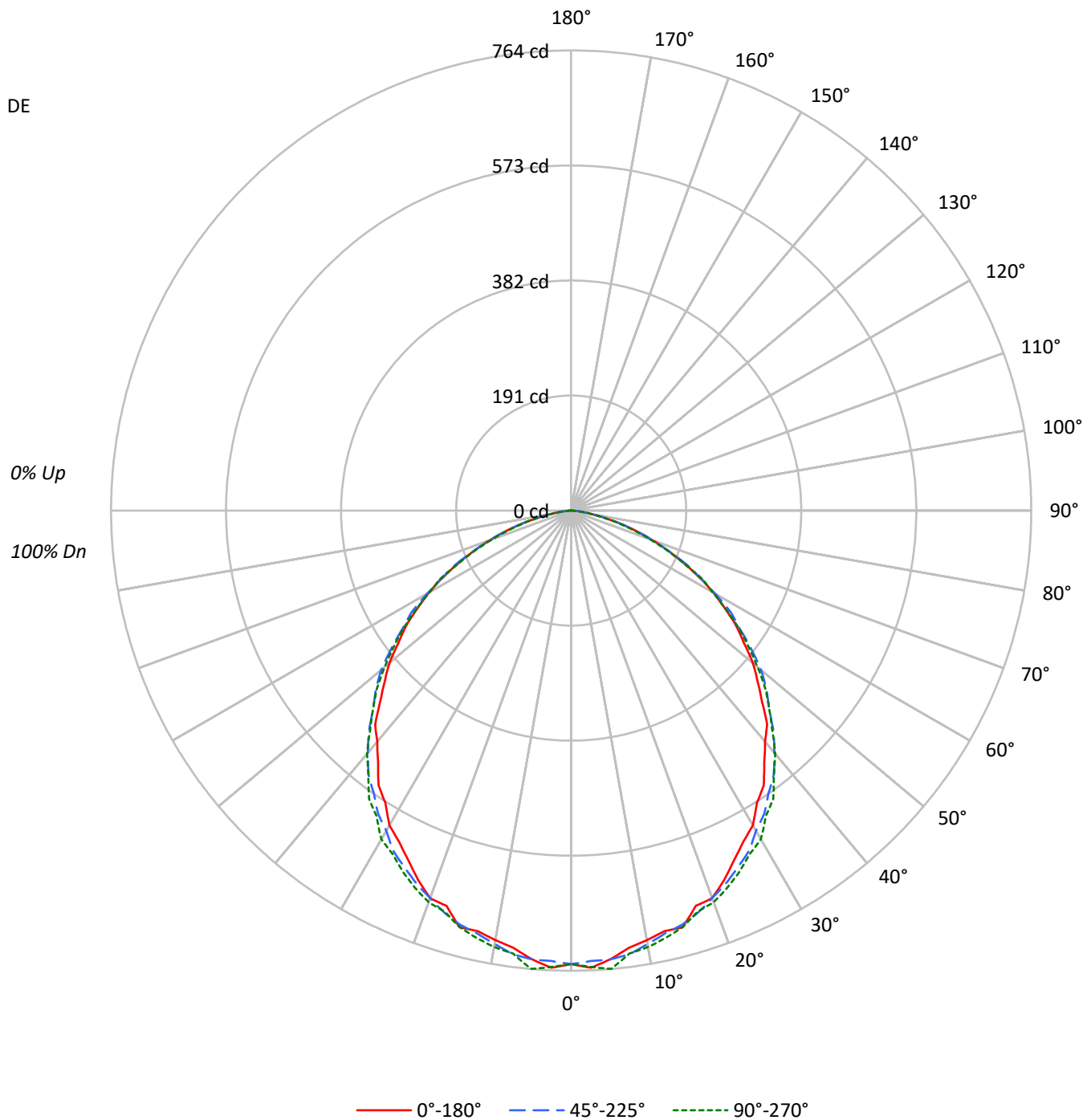
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2027	2027	2027
5°	2020	2021	2063
10°	1979	1996	2010
15°	1994	1984	1995
20°	1961	1961	1982
25°	1901	1942	1964
30°	1874	1907	1958
35°	1830	1878	1920
40°	1759	1844	1852
45°	1706	1767	1769
50°	1650	1724	1691
55°	1572	1603	1591
60°	1470	1485	1458
65°	1310	1344	1301
70°	1124	1128	1097
75°	891	889	855
80°	597	580	558
85°	324	321	299

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1812 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.8	3.7
10°-20°	200.8	10.6
20°-30°	300.8	15.8
30°-40°	356.5	18.8
40°-50°	357.2	18.8
50°-60°	303.2	16.0
60°-70°	204.4	10.8
70°-80°	89.8	4.7
80°-90°	14.6	0.8
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°	572.4	30.2
0°-40°	928.9	48.9
0°-60°	1589.2	83.7
0°-90°	1898.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1898.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	753	753	753	753	753	
5°	748	746	748	746	764	70
15°	716	708	712	716	716	199
25°	640	644	654	663	661	296
35°	557	559	572	585	585	346
45°	448	457	464	476	465	347
55°	335	333	342	339	339	298
65°	206	203	211	203	204	205
75°	86	84	86	79	82	92
85°	10	10	10	10	10	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	753.1	753.1	753.1	753.1	753.1
2.5°	759.6	753.9	748.5	754.7	758.5
5°	747.7	746.0	748.0	745.8	763.8
7.5°	732.4	739.1	743.0	740.5	741.6
10°	724.2	721.9	730.5	736.5	735.7
12.5°	715.4	718.9	719.4	726.0	726.5
15°	715.9	707.7	712.0	715.7	716.0
17.5°	688.1	697.1	700.1	708.5	698.0
20°	684.7	678.2	684.7	693.4	692.0
22.5°	663.8	656.5	670.5	678.2	677.7
25°	640.1	643.6	654.1	662.7	661.3
27.5°	619.3	623.4	638.3	650.1	642.5
30°	603.2	601.2	613.8	624.3	630.2
32.5°	574.6	581.9	596.7	607.1	601.6
35°	557.2	558.8	571.7	585.0	584.6
37.5°	526.7	534.4	552.6	556.3	552.9
40°	500.8	508.4	524.9	528.9	527.2
42.5°	481.6	483.0	497.1	501.6	494.3
45°	448.2	456.6	464.2	476.2	464.9
47.5°	419.9	423.7	440.1	443.3	437.4
50°	394.1	395.5	411.9	407.9	404.0
52.5°	361.7	367.4	376.7	375.9	371.3
55°	335.1	332.8	341.6	339.2	339.2
57.5°	303.1	307.0	314.2	310.5	304.5
60°	273.1	273.2	275.9	271.7	270.9
62.5°	239.8	240.9	241.5	236.4	244.7
65°	205.8	203.1	211.1	203.0	204.4
67.5°	174.6	176.0	175.2	170.2	172.1
70°	142.9	144.7	143.4	137.7	139.4
72.5°	114.0	111.8	113.2	106.0	109.3
75°	85.7	83.9	85.5	79.4	82.2
77.5°	58.3	59.7	58.7	55.5	57.4
80°	38.5	37.4	37.4	35.6	36.0
82.5°	22.5	21.4	21.1	20.5	21.4
85°	10.5	10.2	10.4	10.1	9.7
87.5°	3.8	3.9	3.9	3.7	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)