

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: P563009

Luminaire Tested: FSR-24-4-LD4-2STD-50-UNV-81-84-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563009
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-24-4-LD4-2STD-50-UNV-81-84-EDD
Description: 2X4 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7616.0 lumens
Efficiency: N/A
Efficacy: 114.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

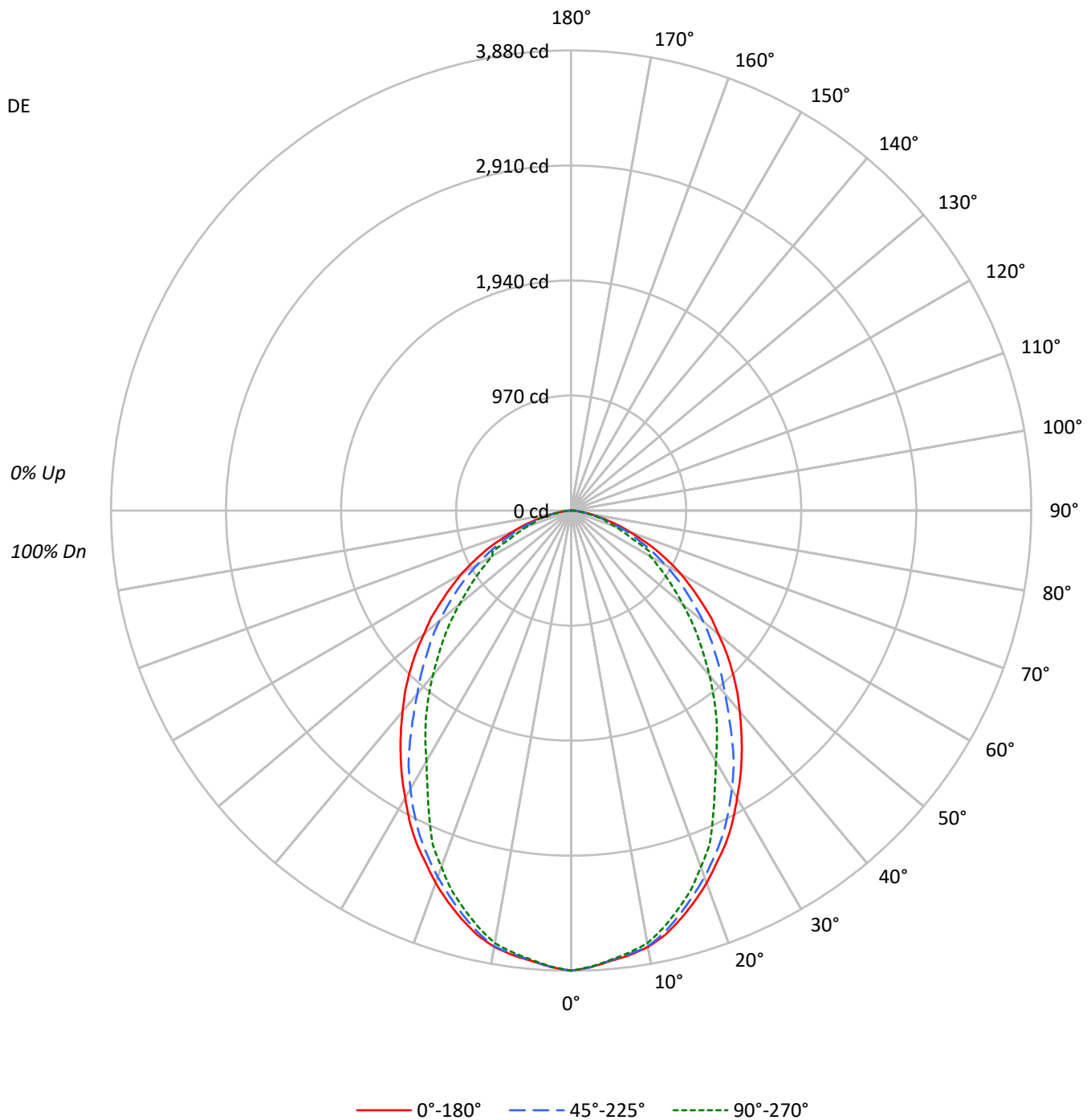
Input Watts (W): 66.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	5220	5220	5220
5°	5149	5143	5137
10°	5104	5098	5061
15°	4967	4917	4848
20°	4784	4707	4579
25°	4588	4488	4208
30°	4348	4209	3791
35°	4118	3890	3506
40°	3884	3545	3190
45°	3661	3277	2884
50°	3389	3042	2572
55°	3135	2757	2304
60°	2872	2462	2064
65°	2527	2156	1828
70°	2082	1888	1553
75°	1655	1446	1515
80°	1112	1042	973
85°	692	831	969

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3661 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	361.1	4.7
10°-20°	991.1	13.0
20°-30°	1372.1	18.0
30°-40°	1463.1	19.2
40°-50°	1334.7	17.5
50°-60°	1045.7	13.7
60°-70°	681.5	8.9
70°-80°	301.9	4.0
80°-90°	64.8	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°	2724.3	35.8
0°-40°	4187.4	55.0
0°-60°	6567.7	86.2
0°-90°	7616.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7616.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3880	3880	3880	3880	3880	
5°	3812	3808	3808	3803	3803	362
15°	3566	3566	3530	3494	3480	1002
25°	3090	3072	3023	2915	2834	1419
35°	2507	2489	2368	2189	2135	1567
45°	1924	1884	1722	1579	1516	1482
55°	1336	1296	1175	1036	982	1199
65°	794	749	677	691	574	782
75°	318	296	278	265	292	341
85°	45	49	54	58	63	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3879.5	3879.5	3879.5	3879.5	3879.5
2.5°	3852.6	3852.6	3852.6	3848.1	3848.1
5°	3812.2	3807.7	3807.7	3803.2	3803.2
7.5°	3780.8	3776.3	3771.8	3767.4	3758.4
10°	3736.0	3736.0	3731.5	3709.1	3704.6
12.5°	3664.2	3659.7	3641.8	3610.4	3601.4
15°	3565.5	3565.5	3529.7	3493.8	3480.3
17.5°	3457.9	3453.4	3408.6	3372.7	3354.7
20°	3341.3	3332.3	3287.5	3229.2	3197.8
22.5°	3211.2	3211.2	3157.4	3081.2	3049.8
25°	3090.1	3072.2	3022.9	2915.2	2834.5
27.5°	2951.1	2924.2	2870.4	2717.9	2623.7
30°	2798.6	2785.2	2708.9	2511.6	2439.8
32.5°	2655.1	2632.7	2551.9	2345.6	2287.3
35°	2507.1	2489.2	2368.1	2188.7	2134.8
37.5°	2359.1	2336.7	2184.2	2040.7	1973.4
40°	2211.1	2184.2	2018.2	1888.2	1816.4
42.5°	2072.1	2036.2	1874.7	1735.7	1654.9
45°	1924.0	1883.7	1722.2	1578.7	1515.9
47.5°	1776.0	1740.2	1592.2	1444.2	1372.4
50°	1619.1	1587.7	1453.1	1305.1	1228.9
52.5°	1489.0	1439.7	1309.6	1161.6	1098.8
55°	1336.5	1296.2	1175.1	1036.0	982.2
57.5°	1197.5	1157.1	1045.0	914.9	870.1
60°	1067.4	1009.1	914.9	802.8	766.9
62.5°	923.9	879.1	798.3	704.1	749.0
65°	793.8	749.0	677.2	690.7	574.1
67.5°	650.3	627.9	565.1	502.3	484.4
70°	529.2	502.3	479.9	412.6	394.7
72.5°	421.6	394.7	363.3	327.4	313.9
75°	318.4	296.0	278.1	264.6	291.5
77.5°	219.8	210.8	197.3	183.9	179.4
80°	143.5	139.0	134.5	130.1	125.6
82.5°	85.2	85.2	85.2	85.2	85.2
85°	44.8	49.3	53.8	58.3	62.8
87.5°	26.9	26.9	31.4	35.9	40.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)