

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: P563424

Luminaire Tested: FSR-24-4-LD4-3LO-50-UNV-93-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563424
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-LD4-3LO-50-UNV-93-84-EDD-90
Description: 2X4 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7828.0 lumens
Efficiency: N/A
Efficacy: 111.5 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

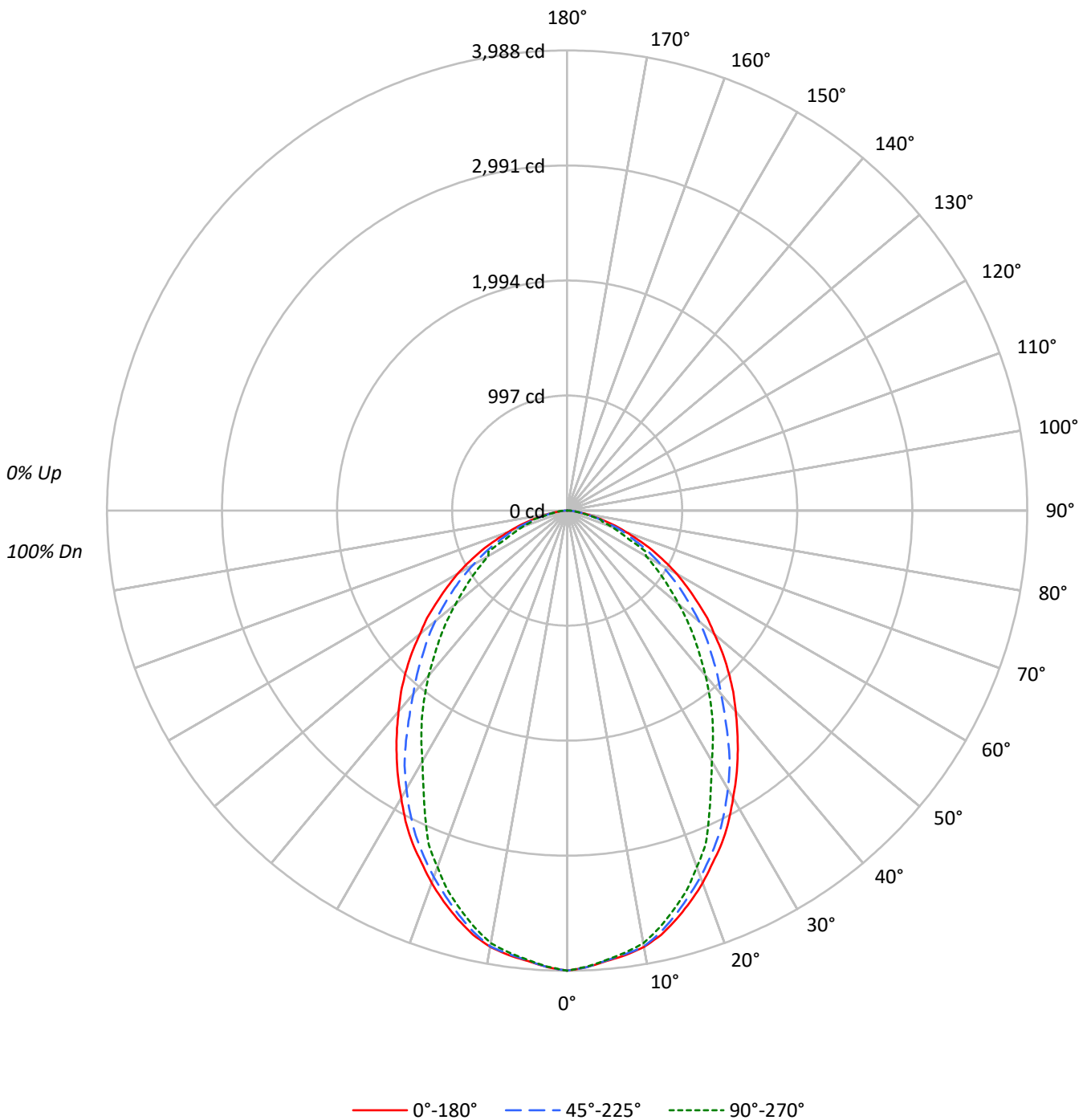
Input Watts (W): 70.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	5365	5365	5365
5°	5292	5286	5280
10°	5246	5240	5202
15°	5105	5053	4983
20°	4917	4838	4706
25°	4715	4613	4325
30°	4469	4326	3896
35°	4233	3998	3604
40°	3992	3644	3279
45°	3763	3368	2965
50°	3483	3126	2644
55°	3222	2833	2368
60°	2952	2531	2121
65°	2598	2216	1879
70°	2140	1940	1596
75°	1701	1486	1557
80°	1143	1072	1000
85°	712	854	996

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3763 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	371.2	4.7
10°-20°	1018.7	13.0
20°-30°	1410.3	18.0
30°-40°	1503.8	19.2
40°-50°	1371.9	17.5
50°-60°	1074.8	13.7
60°-70°	700.5	8.9
70°-80°	310.3	4.0
80°-90°	66.6	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°	2800.1	35.8
0°-40°	4303.9	55.0
0°-60°	6750.6	86.2
0°-90°	7828.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7828.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3988	3988	3988	3988	3988	
5°	3918	3914	3914	3909	3909	372
15°	3665	3665	3628	3591	3577	1030
25°	3176	3158	3107	2996	2913	1458
35°	2577	2558	2434	2250	2194	1611
45°	1978	1936	1770	1623	1558	1523
55°	1374	1332	1208	1065	1010	1232
65°	816	770	696	710	590	804
75°	327	304	286	272	300	351
85°	46	51	55	60	64	64
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3987.5	3987.5	3987.5	3987.5	3987.5
2.5°	3959.8	3959.8	3959.8	3955.2	3955.2
5°	3918.3	3913.7	3913.7	3909.1	3909.1
7.5°	3886.1	3881.5	3876.8	3872.2	3863.0
10°	3840.0	3840.0	3835.4	3812.3	3807.7
12.5°	3766.2	3761.6	3743.2	3710.9	3701.7
15°	3664.8	3664.8	3627.9	3591.0	3577.2
17.5°	3554.2	3549.5	3503.4	3466.6	3448.1
20°	3434.3	3425.1	3379.0	3319.1	3286.8
22.5°	3300.6	3300.6	3245.3	3166.9	3134.7
25°	3176.2	3157.7	3107.0	2996.4	2913.4
27.5°	3033.2	3005.6	2950.3	2793.5	2696.7
30°	2876.5	2862.7	2784.3	2581.5	2507.7
32.5°	2729.0	2706.0	2623.0	2410.9	2351.0
35°	2576.9	2558.4	2434.0	2249.6	2194.3
37.5°	2424.8	2401.7	2245.0	2097.5	2028.3
40°	2272.6	2245.0	2074.4	1940.7	1867.0
42.5°	2129.7	2092.9	1926.9	1784.0	1701.0
45°	1977.6	1936.1	1770.2	1622.7	1558.1
47.5°	1825.5	1788.6	1636.5	1484.4	1410.6
50°	1664.1	1631.9	1493.6	1341.5	1263.1
52.5°	1530.5	1479.7	1346.1	1193.9	1129.4
55°	1373.7	1332.2	1207.8	1064.9	1009.5
57.5°	1230.8	1189.3	1074.1	940.4	894.3
60°	1097.1	1037.2	940.4	825.2	788.3
62.5°	949.6	903.5	820.5	723.7	769.8
65°	815.9	769.8	696.1	709.9	590.1
67.5°	668.4	645.4	580.8	516.3	497.9
70°	544.0	516.3	493.2	424.1	405.7
72.5°	433.3	405.7	373.4	336.5	322.7
75°	327.3	304.2	285.8	272.0	299.6
77.5°	225.9	216.7	202.8	189.0	184.4
80°	147.5	142.9	138.3	133.7	129.1
82.5°	87.6	87.6	87.6	87.6	87.6
85°	46.1	50.7	55.3	59.9	64.5
87.5°	27.7	27.7	32.3	36.9	41.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)