

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: P562811

Luminaire Tested: FSR-24-4-LD4-2LO-50-UNV-80-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562811
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-LD4-2LO-50-UNV-80-94-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6000.0 lumens
Efficiency: N/A
Efficacy: 128.2 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

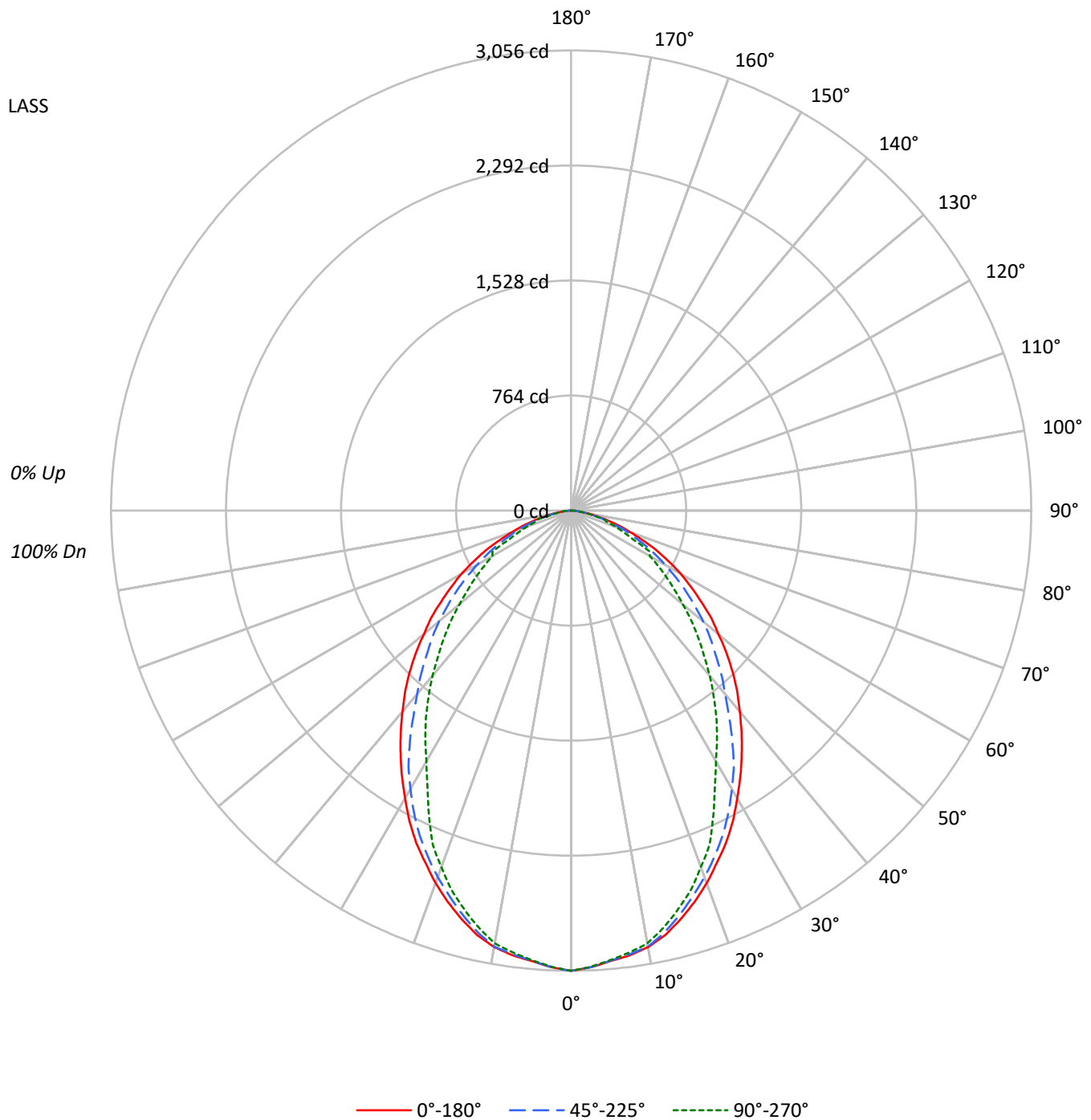
Input Watts (W): 46.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	4112	4112	4112
5°	4056	4052	4047
10°	4021	4016	3987
15°	3913	3873	3819
20°	3769	3708	3607
25°	3614	3536	3315
30°	3425	3316	2986
35°	3244	3064	2763
40°	3059	2793	2513
45°	2884	2582	2273
50°	2670	2396	2026
55°	2470	2171	1815
60°	2263	1940	1626
65°	1991	1699	1440
70°	1640	1487	1223
75°	1304	1139	1194
80°	876	821	766
85°	545	655	764

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2884 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	284.5	4.7
10°-20°	780.8	13.0
20°-30°	1081.0	18.0
30°-40°	1152.6	19.2
40°-50°	1051.5	17.5
50°-60°	823.8	13.7
60°-70°	536.9	8.9
70°-80°	237.9	4.0
80°-90°	51.1	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°	2146.3	35.8
0°-40°	3298.9	55.0
0°-60°	5174.2	86.2
0°-90°	6000.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6000.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3056	3056	3056	3056	3056	
5°	3003	3000	3000	2996	2996	285
15°	2809	2809	2781	2752	2742	790
25°	2434	2420	2382	2297	2233	1118
35°	1975	1961	1866	1724	1682	1235
45°	1516	1484	1357	1244	1194	1168
55°	1053	1021	926	816	774	944
65°	625	590	534	544	452	616
75°	251	233	219	208	230	269
85°	35	39	42	46	50	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3056.3	3056.3	3056.3	3056.3	3056.3
2.5°	3035.1	3035.1	3035.1	3031.6	3031.6
5°	3003.3	2999.8	2999.8	2996.3	2996.3
7.5°	2978.6	2975.1	2971.5	2968.0	2960.9
10°	2943.3	2943.3	2939.7	2922.1	2918.5
12.5°	2886.7	2883.2	2869.1	2844.3	2837.3
15°	2809.0	2809.0	2780.7	2752.5	2741.9
17.5°	2724.2	2720.7	2685.3	2657.1	2642.9
20°	2632.3	2625.3	2589.9	2544.0	2519.3
22.5°	2529.9	2529.9	2487.5	2427.4	2402.7
25°	2434.5	2420.3	2381.5	2296.7	2233.1
27.5°	2324.9	2303.7	2261.3	2141.2	2067.0
30°	2204.8	2194.2	2134.1	1978.7	1922.1
32.5°	2091.7	2074.1	2010.5	1847.9	1802.0
35°	1975.1	1961.0	1865.6	1724.3	1681.9
37.5°	1858.5	1840.9	1720.7	1607.7	1554.7
40°	1741.9	1720.7	1590.0	1487.5	1431.0
42.5°	1632.4	1604.1	1476.9	1367.4	1303.8
45°	1515.8	1484.0	1356.8	1243.7	1194.3
47.5°	1399.2	1370.9	1254.3	1137.7	1081.2
50°	1275.5	1250.8	1144.8	1028.2	968.1
52.5°	1173.1	1134.2	1031.7	915.1	865.7
55°	1052.9	1021.1	925.7	816.2	773.8
57.5°	943.4	911.6	823.3	720.8	685.5
60°	840.9	795.0	720.8	632.5	604.2
62.5°	727.9	692.5	628.9	554.7	590.1
65°	625.4	590.1	533.5	544.1	452.3
67.5°	512.3	494.7	445.2	395.7	381.6
70°	416.9	395.7	378.1	325.1	310.9
72.5°	332.1	310.9	286.2	257.9	247.3
75°	250.9	233.2	219.1	208.5	229.7
77.5°	173.1	166.1	155.5	144.9	141.3
80°	113.1	109.5	106.0	102.5	98.9
82.5°	67.1	67.1	67.1	67.1	67.1
85°	35.3	38.9	42.4	45.9	49.5
87.5°	21.2	21.2	24.7	28.3	31.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)