

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: P562749

Luminaire Tested: FSR-24-4-LD4-2LO-40-UNV-80-96-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562749
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-40-UNV-80-96-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5835.0 lumens
Efficiency: N/A
Efficacy: 124.7 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

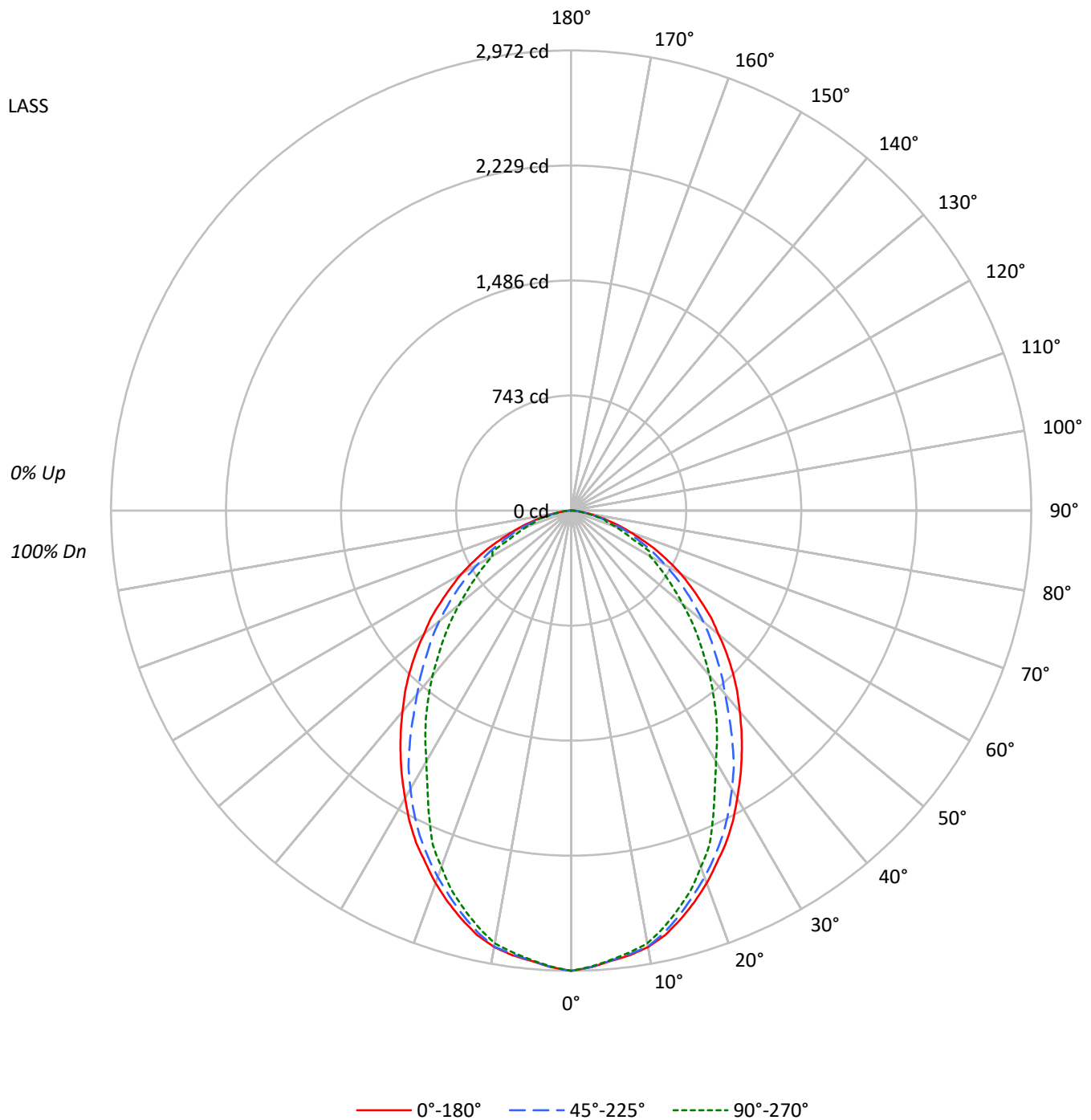
Input Watts (W): 46.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	3999	3999	3999
5°	3945	3940	3936
10°	3911	3906	3878
15°	3805	3767	3714
20°	3665	3606	3508
25°	3515	3438	3224
30°	3331	3224	2904
35°	3155	2980	2687
40°	2975	2716	2444
45°	2805	2511	2210
50°	2597	2330	1971
55°	2402	2112	1765
60°	2201	1886	1581
65°	1936	1652	1400
70°	1595	1447	1190
75°	1268	1107	1161
80°	852	799	745
85°	531	636	743

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2805 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	276.7	4.7
10°-20°	759.3	13.0
20°-30°	1051.2	18.0
30°-40°	1120.9	19.2
40°-50°	1022.6	17.5
50°-60°	801.1	13.7
60°-70°	522.1	8.9
70°-80°	231.3	4.0
80°-90°	49.7	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°	2087.2	35.8
0°-40°	3208.1	55.0
0°-60°	5031.9	86.2
0°-90°	5835.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5835.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2972	2972	2972	2972	2972	
5°	2921	2917	2917	2914	2914	277
15°	2732	2732	2704	2677	2666	768
25°	2368	2354	2316	2234	2172	1087
35°	1921	1907	1814	1677	1636	1201
45°	1474	1443	1320	1210	1161	1135
55°	1024	993	900	794	752	918
65°	608	574	519	529	440	599
75°	244	227	213	203	223	261
85°	34	38	41	45	48	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2972.3	2972.3	2972.3	2972.3	2972.3
2.5°	2951.7	2951.7	2951.7	2948.2	2948.2
5°	2920.7	2917.3	2917.3	2913.9	2913.9
7.5°	2896.7	2893.2	2889.8	2886.4	2879.5
10°	2862.3	2862.3	2858.9	2841.7	2838.3
12.5°	2807.3	2803.9	2790.2	2766.1	2759.2
15°	2731.7	2731.7	2704.3	2676.8	2666.5
17.5°	2649.3	2645.8	2611.5	2584.0	2570.2
20°	2559.9	2553.1	2518.7	2474.0	2450.0
22.5°	2460.3	2460.3	2419.1	2360.6	2336.6
25°	2367.5	2353.8	2316.0	2233.5	2171.6
27.5°	2261.0	2240.4	2199.1	2082.3	2010.1
30°	2144.2	2133.9	2075.4	1924.2	1869.3
32.5°	2034.2	2017.0	1955.2	1797.1	1752.4
35°	1920.8	1907.1	1814.3	1676.8	1635.6
37.5°	1807.4	1790.2	1673.4	1563.4	1511.9
40°	1694.0	1673.4	1546.3	1446.6	1391.6
42.5°	1587.5	1560.0	1436.3	1329.8	1267.9
45°	1474.1	1443.2	1319.5	1209.5	1161.4
47.5°	1360.7	1333.2	1219.8	1106.4	1051.5
50°	1240.5	1216.4	1113.3	999.9	941.5
52.5°	1140.8	1103.0	1003.4	890.0	841.9
55°	1024.0	993.0	900.3	793.8	752.5
57.5°	917.5	886.5	800.6	701.0	666.6
60°	817.8	773.1	701.0	615.1	587.6
62.5°	707.8	673.5	611.6	539.5	573.8
65°	608.2	573.8	518.9	529.2	439.8
67.5°	498.2	481.1	433.0	384.8	371.1
70°	405.5	384.8	367.7	316.1	302.4
72.5°	323.0	302.4	278.3	250.8	240.5
75°	244.0	226.8	213.0	202.7	223.3
77.5°	168.4	161.5	151.2	140.9	137.4
80°	110.0	106.5	103.1	99.6	96.2
82.5°	65.3	65.3	65.3	65.3	65.3
85°	34.4	37.8	41.2	44.7	48.1
87.5°	20.6	20.6	24.1	27.5	30.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)