

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: P563259

Luminaire Tested: FSR-24-4-LD4-3LO-35-UNV-80-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563259
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-35-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8762.0 lumens
Efficiency: N/A
Efficacy: 124.8 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

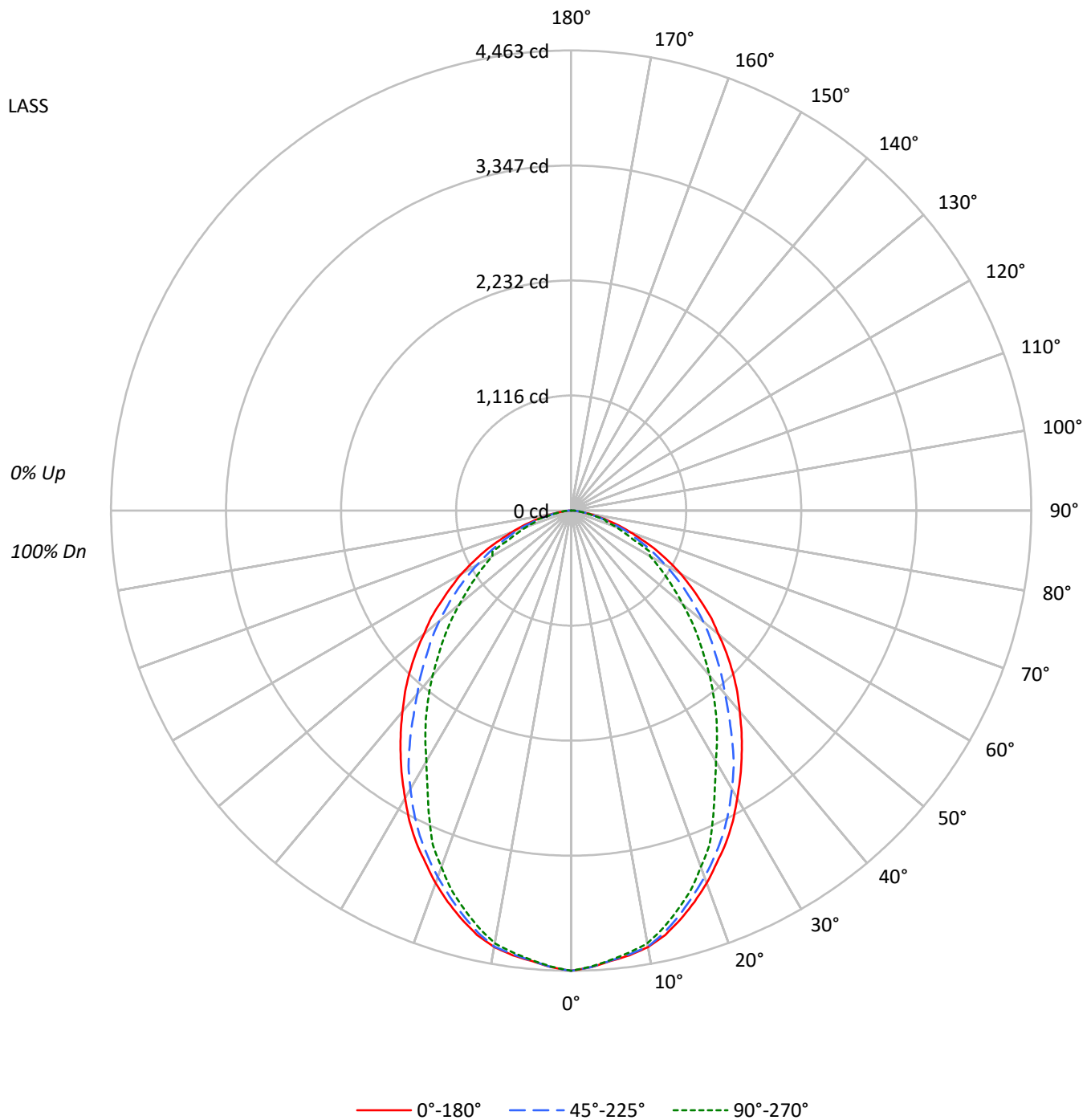
Input Watts (W): 70.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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				
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°	6005	6005	6005
5°	5924	5917	5910
10°	5872	5865	5823
15°	5714	5657	5577
20°	5504	5415	5268
25°	5278	5163	4841
30°	5002	4842	4361
35°	4738	4475	4034
40°	4468	4078	3670
45°	4212	3770	3318
50°	3899	3499	2959
55°	3607	3171	2651
60°	3305	2833	2374
65°	2908	2480	2103
70°	2395	2172	1786
75°	1904	1663	1744
80°	1279	1199	1120
85°	797	956	1115

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4212 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	415.5	4.7
10°-20°	1140.2	13.0
20°-30°	1578.6	18.0
30°-40°	1683.2	19.2
40°-50°	1535.6	17.5
50°-60°	1203.0	13.7
60°-70°	784.1	8.9
70°-80°	347.4	4.0
80°-90°	74.6	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°	3134.2	35.8
0°-40°	4817.4	55.0
0°-60°	7556.0	86.2
0°-90°	8762.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8762.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4463	4463	4463	4463	4463	
5°	4386	4381	4381	4376	4376	416
15°	4102	4102	4061	4020	4004	1153
25°	3555	3534	3478	3354	3261	1632
35°	2884	2864	2724	2518	2456	1803
45°	2214	2167	1981	1816	1744	1705
55°	1538	1491	1352	1192	1130	1379
65°	913	862	779	795	660	900
75°	366	340	320	304	335	393
85°	52	57	62	67	72	72
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4463.2	4463.2	4463.2	4463.2	4463.2
2.5°	4432.3	4432.3	4432.3	4427.1	4427.1
5°	4385.8	4380.7	4380.7	4375.5	4375.5
7.5°	4349.7	4344.6	4339.4	4334.3	4323.9
10°	4298.1	4298.1	4293.0	4267.2	4262.0
12.5°	4215.6	4210.4	4189.8	4153.7	4143.3
15°	4102.1	4102.1	4060.8	4019.5	4004.0
17.5°	3978.2	3973.1	3921.5	3880.2	3859.5
20°	3844.1	3833.7	3782.1	3715.1	3679.0
22.5°	3694.4	3694.4	3632.5	3544.8	3508.7
25°	3555.1	3534.5	3477.7	3353.9	3261.0
27.5°	3395.2	3364.2	3302.3	3126.9	3018.5
30°	3219.7	3204.2	3116.5	2889.5	2806.9
32.5°	3054.6	3028.8	2935.9	2698.6	2631.5
35°	2884.3	2863.7	2724.4	2518.0	2456.1
37.5°	2714.1	2688.3	2512.8	2347.7	2270.3
40°	2543.8	2512.8	2321.9	2172.3	2089.7
42.5°	2383.8	2342.6	2156.8	1996.9	1904.0
45°	2213.6	2167.1	1981.4	1816.3	1744.0
47.5°	2043.3	2002.0	1831.7	1661.5	1578.9
50°	1862.7	1826.6	1671.8	1501.5	1413.8
52.5°	1713.1	1656.3	1506.7	1336.4	1264.2
55°	1537.6	1491.2	1351.9	1191.9	1130.0
57.5°	1377.7	1331.2	1202.2	1052.6	1001.0
60°	1228.0	1161.0	1052.6	923.6	882.3
62.5°	1062.9	1011.3	918.4	810.1	861.7
65°	913.3	861.7	779.1	794.6	660.5
67.5°	748.2	722.4	650.1	577.9	557.3
70°	608.9	577.9	552.1	474.7	454.1
72.5°	485.0	454.1	417.9	376.7	361.2
75°	366.3	340.5	319.9	304.4	335.4
77.5°	252.8	242.5	227.0	211.6	206.4
80°	165.1	160.0	154.8	149.6	144.5
82.5°	98.0	98.0	98.0	98.0	98.0
85°	51.6	56.8	61.9	67.1	72.2
87.5°	31.0	31.0	36.1	41.3	46.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)