

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: P563583

Luminaire Tested: FSR-24-4-LD4-3STD-50-UNV-80-97-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563583
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-LD4-3STD-50-UNV-80-97-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 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: 11492.0 lumens
Efficiency: N/A
Efficacy: 115.0 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

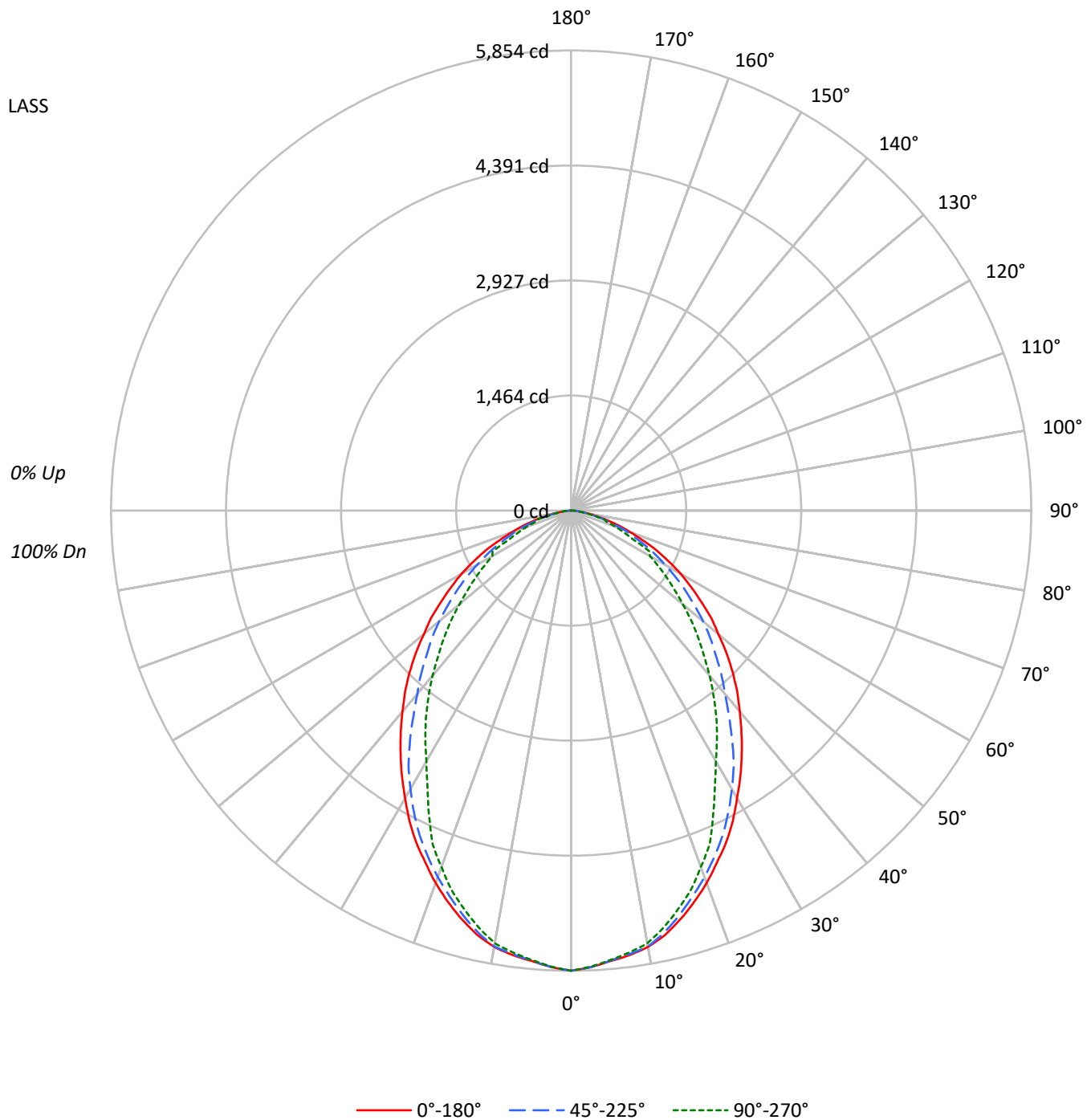
Input Watts (W): 99.9
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P563583

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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°	7876	7876	7876
5°	7769	7760	7751
10°	7702	7693	7637
15°	7494	7419	7315
20°	7219	7103	6909
25°	6922	6772	6350
30°	6561	6351	5720
35°	6214	5869	5291
40°	5860	5349	4814
45°	5524	4945	4352
50°	5114	4590	3881
55°	4731	4159	3477
60°	4334	3715	3114
65°	3813	3253	2758
70°	3142	2849	2343
75°	2498	2181	2287
80°	1678	1573	1468
85°	1045	1254	1462

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5524 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	544.9	4.7
10°-20°	1495.5	13.0
20°-30°	2070.4	18.0
30°-40°	2207.6	19.2
40°-50°	2014.0	17.5
50°-60°	1577.8	13.7
60°-70°	1028.3	8.9
70°-80°	455.6	4.0
80°-90°	97.8	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°	4110.8	35.8
0°-40°	6318.4	55.0
0°-60°	9910.3	86.2
0°-90°	11492.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11492.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5854	5854	5854	5854	5854	
5°	5752	5746	5746	5739	5739	546
15°	5380	5380	5326	5272	5252	1513
25°	4663	4636	4561	4399	4277	2141
35°	3783	3756	3573	3302	3221	2365
45°	2903	2842	2599	2382	2287	2236
55°	2017	1956	1773	1563	1482	1809
65°	1198	1130	1022	1042	866	1180
75°	480	447	420	399	440	515
85°	68	74	81	88	95	94
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5853.9	5853.9	5853.9	5853.9	5853.9
2.5°	5813.3	5813.3	5813.3	5806.5	5806.5
5°	5752.4	5745.6	5745.6	5738.8	5738.8
7.5°	5705.0	5698.2	5691.5	5684.7	5671.1
10°	5637.3	5637.3	5630.5	5596.7	5589.9
12.5°	5529.0	5522.3	5495.2	5447.8	5434.3
15°	5380.1	5380.1	5326.0	5271.9	5251.6
17.5°	5217.7	5211.0	5143.3	5089.1	5062.1
20°	5041.8	5028.2	4960.6	4872.6	4825.2
22.5°	4845.5	4845.5	4764.3	4649.3	4601.9
25°	4662.8	4635.7	4561.3	4398.9	4277.0
27.5°	4453.0	4412.4	4331.2	4101.1	3959.0
30°	4222.9	4202.6	4087.6	3789.8	3681.5
32.5°	4006.3	3972.5	3850.7	3539.4	3451.4
35°	3783.0	3756.0	3573.2	3302.5	3221.3
37.5°	3559.7	3525.9	3295.8	3079.2	2977.7
40°	3336.4	3295.8	3045.4	2849.1	2740.8
42.5°	3126.6	3072.4	2828.8	2619.0	2497.2
45°	2903.2	2842.3	2598.7	2382.2	2287.4
47.5°	2679.9	2625.8	2402.5	2179.1	2070.8
50°	2443.1	2395.7	2192.7	1969.3	1854.3
52.5°	2246.8	2172.4	1976.1	1752.8	1658.0
55°	2016.7	1955.8	1773.1	1563.3	1482.1
57.5°	1806.9	1746.0	1576.8	1380.6	1312.9
60°	1610.7	1522.7	1380.6	1211.4	1157.2
62.5°	1394.1	1326.4	1204.6	1062.5	1130.2
65°	1197.8	1130.2	1021.9	1042.2	866.2
67.5°	981.3	947.4	852.7	758.0	730.9
70°	798.6	758.0	724.1	622.6	595.5
72.5°	636.1	595.5	548.2	494.0	473.7
75°	480.5	446.7	419.6	399.3	439.9
77.5°	331.6	318.1	297.8	277.5	270.7
80°	216.6	209.8	203.0	196.3	189.5
82.5°	128.6	128.6	128.6	128.6	128.6
85°	67.7	74.4	81.2	88.0	94.7
87.5°	40.6	40.6	47.4	54.1	60.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)