

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: P563425

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

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563425
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
Description: 2X4 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8997.0 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

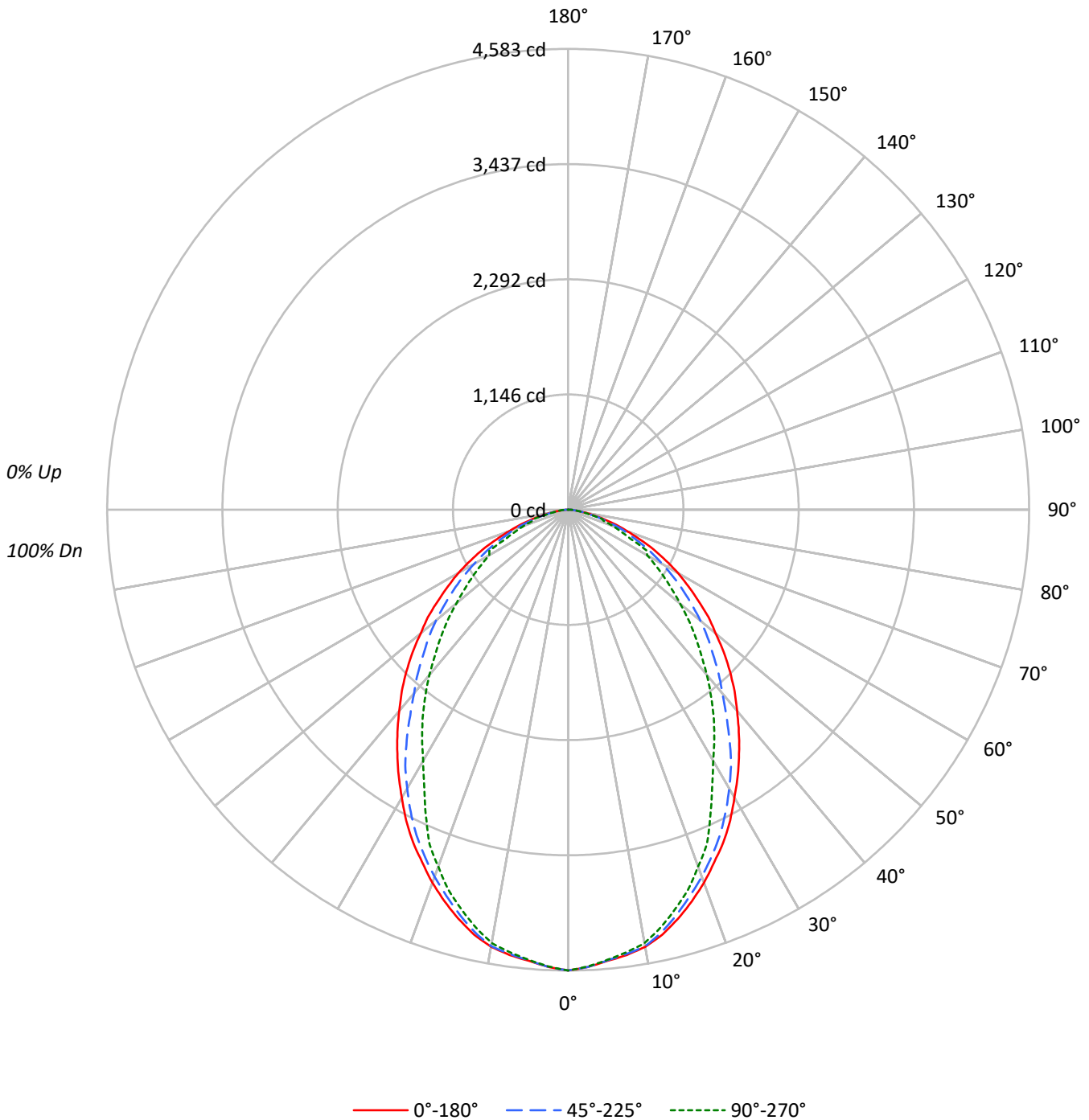
Input Watts (W): 70.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	6166	6166	6166
5°	6083	6075	6068
10°	6030	6023	5979
15°	5867	5808	5727
20°	5652	5561	5409
25°	5419	5301	4971
30°	5136	4972	4478
35°	4865	4595	4142
40°	4588	4188	3769
45°	4325	3871	3408
50°	4004	3593	3039
55°	3704	3256	2722
60°	3393	2908	2438
65°	2986	2547	2159
70°	2460	2230	1834
75°	1956	1708	1790
80°	1313	1231	1149
85°	818	982	1145

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4325 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	426.6	4.7
10°-20°	1170.8	13.0
20°-30°	1620.9	18.0
30°-40°	1728.3	19.2
40°-50°	1576.8	17.5
50°-60°	1235.3	13.7
60°-70°	805.1	8.9
70°-80°	356.7	4.0
80°-90°	76.6	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°	3218.3	35.8
0°-40°	4946.6	55.0
0°-60°	7758.7	86.2
0°-90°	8997.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8997.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4583	4583	4583	4583	4583	
5°	4504	4498	4498	4493	4493	427
15°	4212	4212	4170	4127	4111	1184
25°	3650	3629	3571	3444	3348	1676
35°	2962	2940	2798	2586	2522	1852
45°	2273	2225	2034	1865	1791	1751
55°	1579	1531	1388	1224	1160	1416
65°	938	885	800	816	678	924
75°	376	350	328	313	344	403
85°	53	58	64	69	74	74
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4583.0	4583.0	4583.0	4583.0	4583.0
2.5°	4551.2	4551.2	4551.2	4545.9	4545.9
5°	4503.5	4498.2	4498.2	4492.9	4492.9
7.5°	4466.4	4461.1	4455.8	4450.5	4439.9
10°	4413.4	4413.4	4408.1	4381.6	4376.3
12.5°	4328.6	4323.3	4302.1	4265.1	4254.5
15°	4212.1	4212.1	4169.7	4127.3	4111.4
17.5°	4084.9	4079.6	4026.6	3984.3	3963.1
20°	3947.2	3936.6	3883.6	3814.7	3777.6
22.5°	3793.5	3793.5	3729.9	3639.9	3602.8
25°	3650.5	3629.3	3571.0	3443.8	3348.5
27.5°	3486.2	3454.4	3390.9	3210.7	3099.5
30°	3306.1	3290.2	3200.1	2967.0	2882.2
32.5°	3136.5	3110.0	3014.7	2771.0	2702.1
35°	2961.7	2940.5	2797.5	2585.5	2521.9
37.5°	2786.9	2760.4	2580.2	2410.7	2331.2
40°	2612.0	2580.2	2384.2	2230.5	2145.8
42.5°	2447.8	2405.4	2214.7	2050.4	1955.0
45°	2272.9	2225.2	2034.5	1865.0	1790.8
47.5°	2098.1	2055.7	1880.9	1706.0	1621.3
50°	1912.7	1875.6	1716.6	1541.8	1451.7
52.5°	1759.0	1700.7	1547.1	1372.2	1298.1
55°	1578.9	1531.2	1388.1	1223.9	1160.3
57.5°	1414.6	1366.9	1234.5	1080.8	1027.9
60°	1261.0	1192.1	1080.8	948.4	906.0
62.5°	1091.4	1038.4	943.1	831.8	884.8
65°	937.8	884.8	800.0	815.9	678.2
67.5°	768.2	741.7	667.6	593.4	572.2
70°	625.2	593.4	566.9	487.4	466.2
72.5°	498.0	466.2	429.2	386.8	370.9
75°	376.2	349.7	328.5	312.6	344.4
77.5°	259.6	249.0	233.1	217.2	211.9
80°	169.5	164.2	158.9	153.6	148.3
82.5°	100.7	100.7	100.7	100.7	100.7
85°	53.0	58.3	63.6	68.9	74.2
87.5°	31.8	31.8	37.1	42.4	47.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)