

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: P559786

Luminaire Tested: FSR-12-2-LD4-1HI-50-UNV-93-94-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559786
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-12-2-LD4-1HI-50-UNV-93-94-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPER
GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

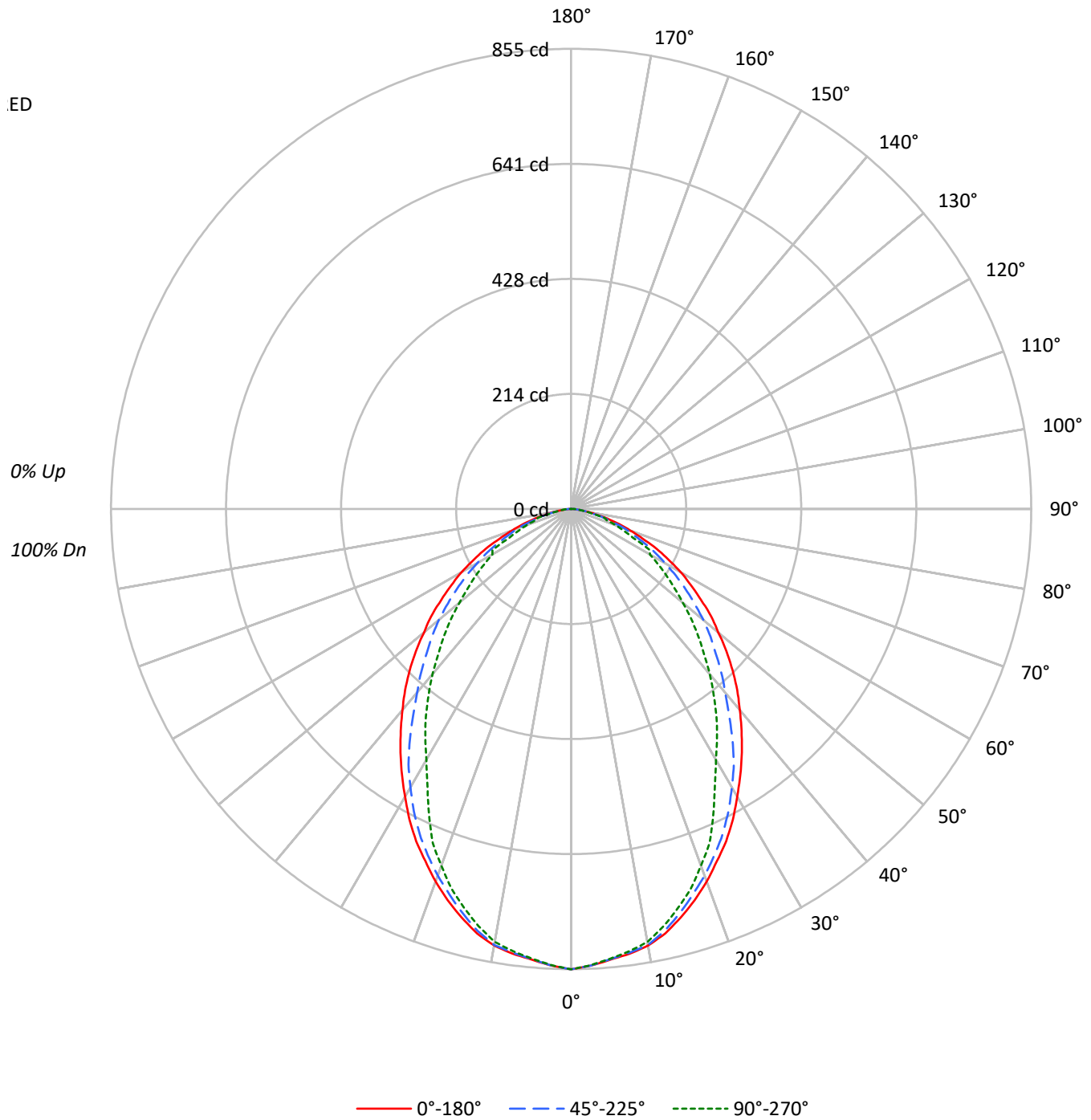
Lumens per Lamp: N/A
Luminaire Lumens: 1679.0 lumens
Efficiency: N/A
Efficacy: 77.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	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°	4603	4603	4603
5°	4540	4535	4530
10°	4501	4495	4463
15°	4379	4335	4275
20°	4219	4151	4038
25°	4045	3957	3711
30°	3834	3711	3343
35°	3631	3430	3092
40°	3424	3126	2813
45°	3229	2890	2544
50°	2988	2683	2268
55°	2764	2430	2031
60°	2533	2171	1820
65°	2229	1901	1612
70°	1836	1665	1369
75°	1460	1275	1337
80°	979	921	859
85°	611	735	852

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3229 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.6	4.7
10°-20°	218.5	13.0
20°-30°	302.5	18.0
30°-40°	322.5	19.2
40°-50°	294.2	17.5
50°-60°	230.5	13.7
60°-70°	150.2	8.9
70°-80°	66.6	4.0
80°-90°	14.3	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°	600.6	35.8
0°-40°	923.1	55.0
0°-60°	1447.9	86.2
0°-90°	1679.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1679.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	855	855	855	855	855	
5°	840	839	839	838	838	80
15°	786	786	778	770	767	221
25°	681	677	666	643	625	313
35°	553	549	522	482	471	346
45°	424	415	380	348	334	327
55°	295	286	259	228	216	264
65°	175	165	149	152	127	172
75°	70	65	61	58	64	75
85°	10	11	12	13	14	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	855.3	855.3	855.3	855.3	855.3
2.5°	849.3	849.3	849.3	848.3	848.3
5°	840.4	839.4	839.4	838.5	838.5
7.5°	833.5	832.5	831.5	830.5	828.6
10°	823.6	823.6	822.6	817.7	816.7
12.5°	807.8	806.8	802.9	795.9	794.0
15°	786.0	786.0	778.1	770.2	767.3
17.5°	762.3	761.3	751.4	743.5	739.6
20°	736.6	734.6	724.7	711.9	705.0
22.5°	707.9	707.9	696.1	679.3	672.3
25°	681.2	677.3	666.4	642.7	624.9
27.5°	650.6	644.7	632.8	599.2	578.4
30°	617.0	614.0	597.2	553.7	537.9
32.5°	585.3	580.4	562.6	517.1	504.3
35°	552.7	548.8	522.1	482.5	470.6
37.5°	520.1	515.1	481.5	449.9	435.0
40°	487.4	481.5	444.9	416.3	400.4
42.5°	456.8	448.9	413.3	382.6	364.8
45°	424.2	415.3	379.7	348.0	334.2
47.5°	391.5	383.6	351.0	318.4	302.6
50°	356.9	350.0	320.4	287.7	270.9
52.5°	328.3	317.4	288.7	256.1	242.2
55°	294.6	285.7	259.0	228.4	216.5
57.5°	264.0	255.1	230.4	201.7	191.8
60°	235.3	222.5	201.7	177.0	169.1
62.5°	203.7	193.8	176.0	155.2	165.1
65°	175.0	165.1	149.3	152.3	126.6
67.5°	143.4	138.4	124.6	110.7	106.8
70°	116.7	110.7	105.8	91.0	87.0
72.5°	92.9	87.0	80.1	72.2	69.2
75°	70.2	65.3	61.3	58.3	64.3
77.5°	48.4	46.5	43.5	40.5	39.5
80°	31.6	30.7	29.7	28.7	27.7
82.5°	18.8	18.8	18.8	18.8	18.8
85°	9.9	10.9	11.9	12.9	13.8
87.5°	5.9	5.9	6.9	7.9	8.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)