

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: P560429

Luminaire Tested: FSR-12-2-LD4-2LO-35-UNV-93-96-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560429
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-LD4-2LO-35-UNV-93-96-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPER
GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2263.0 lumens
Efficiency: N/A
Efficacy: 96.7 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

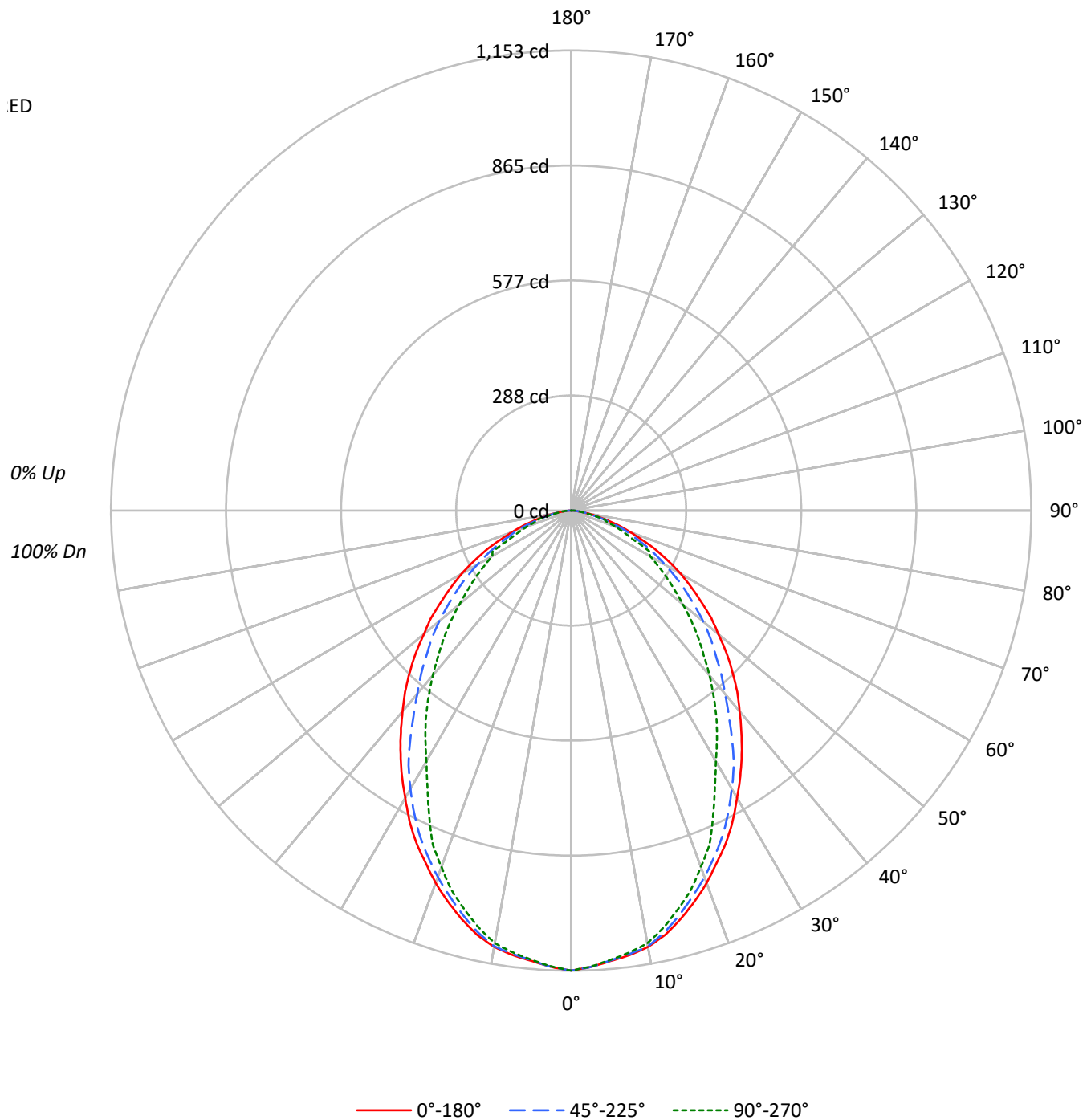
Input Watts (W): 23.4
Input Voltage (V):
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	6204	6204	6204
5°	6120	6112	6105
10°	6067	6060	6016
15°	5903	5844	5762
20°	5686	5594	5442
25°	5453	5334	5001
30°	5168	5002	4506
35°	4895	4623	4167
40°	4616	4213	3792
45°	4351	3895	3428
50°	4028	3615	3057
55°	3726	3277	2739
60°	3414	2927	2453
65°	3004	2562	2173
70°	2475	2244	1846
75°	1967	1718	1801
80°	1320	1240	1156
85°	821	988	1155

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4351 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.3	4.7
10°-20°	294.5	13.0
20°-30°	407.7	18.0
30°-40°	434.7	19.2
40°-50°	396.6	17.5
50°-60°	310.7	13.7
60°-70°	202.5	8.9
70°-80°	89.7	4.0
80°-90°	19.3	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°	809.5	35.8
0°-40°	1244.2	55.0
0°-60°	1951.5	86.2
0°-90°	2263.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2263.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1153	1153	1153	1153	1153	
5°	1133	1131	1131	1130	1130	108
15°	1060	1060	1049	1038	1034	298
25°	918	913	898	866	842	422
35°	745	740	704	650	634	466
45°	572	560	512	469	450	440
55°	397	385	349	308	292	356
65°	236	223	201	205	171	232
75°	95	88	83	79	87	101
85°	13	15	16	17	19	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1152.7	1152.7	1152.7	1152.7	1152.7
2.5°	1144.7	1144.7	1144.7	1143.4	1143.4
5°	1132.8	1131.4	1131.4	1130.1	1130.1
7.5°	1123.4	1122.1	1120.8	1119.4	1116.8
10°	1110.1	1110.1	1108.8	1102.1	1100.8
12.5°	1088.8	1087.4	1082.1	1072.8	1070.1
15°	1059.5	1059.5	1048.8	1038.1	1034.1
17.5°	1027.5	1026.1	1012.8	1002.2	996.8
20°	992.8	990.2	976.8	959.5	950.2
22.5°	954.2	954.2	938.2	915.5	906.2
25°	918.2	912.9	898.2	866.2	842.2
27.5°	876.9	868.9	852.9	807.6	779.6
30°	831.6	827.6	804.9	746.3	725.0
32.5°	788.9	782.3	758.3	697.0	679.7
35°	745.0	739.6	703.6	650.3	634.3
37.5°	701.0	694.3	649.0	606.4	586.4
40°	657.0	649.0	599.7	561.0	539.7
42.5°	615.7	605.0	557.0	515.7	491.7
45°	571.7	559.7	511.7	469.1	450.4
47.5°	527.7	517.1	473.1	429.1	407.8
50°	481.1	471.8	431.8	387.8	365.1
52.5°	442.4	427.8	389.1	345.2	326.5
55°	397.1	385.1	349.2	307.8	291.9
57.5°	355.8	343.8	310.5	271.9	258.5
60°	317.2	299.8	271.9	238.5	227.9
62.5°	274.5	261.2	237.2	209.2	222.6
65°	235.9	222.6	201.2	205.2	170.6
67.5°	193.2	186.6	167.9	149.3	143.9
70°	157.3	149.3	142.6	122.6	117.3
72.5°	125.3	117.3	107.9	97.3	93.3
75°	94.6	88.0	82.6	78.6	86.6
77.5°	65.3	62.6	58.6	54.6	53.3
80°	42.6	41.3	40.0	38.6	37.3
82.5°	25.3	25.3	25.3	25.3	25.3
85°	13.3	14.7	16.0	17.3	18.7
87.5°	8.0	8.0	9.3	10.7	12.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)