

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: P560395

Luminaire Tested: FSR-12-2-LD4-2LO-35-UNV-81-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560395
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-81-94-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2169.0 lumens
Efficiency: N/A
Efficacy: 92.7 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

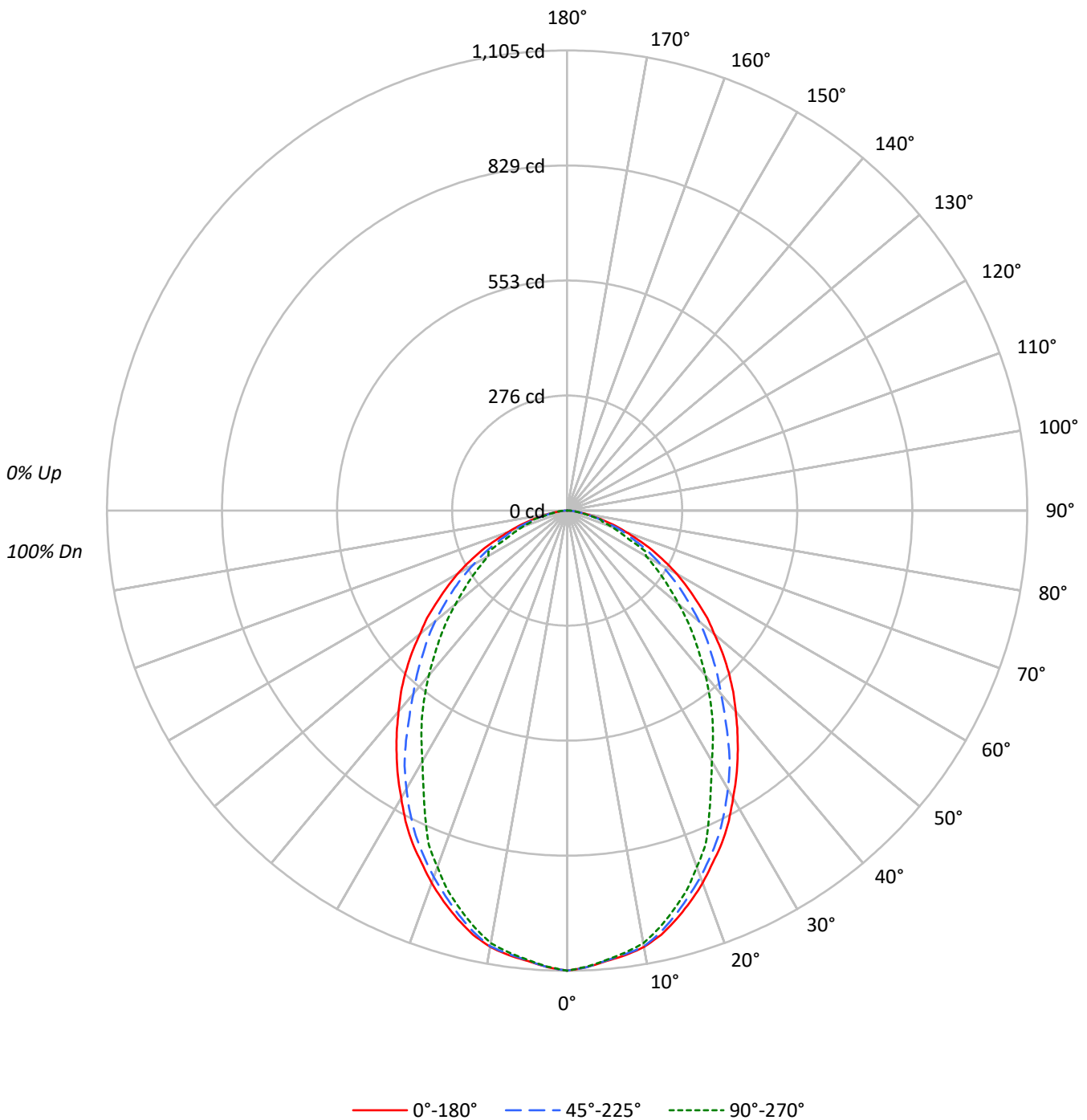
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	5947	5947	5947
5°	5866	5858	5851
10°	5815	5808	5766
15°	5658	5601	5523
20°	5450	5363	5216
25°	5226	5112	4794
30°	4953	4795	4318
35°	4691	4431	3995
40°	4424	4038	3634
45°	4171	3733	3286
50°	3861	3465	2930
55°	3571	3141	2624
60°	3272	2805	2351
65°	2879	2457	2082
70°	2371	2151	1769
75°	1886	1647	1726
80°	1268	1187	1110
85°	790	945	1105

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4171 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.8	4.7
10°-20°	282.3	13.0
20°-30°	390.8	18.0
30°-40°	416.7	19.2
40°-50°	380.1	17.5
50°-60°	297.8	13.7
60°-70°	194.1	8.9
70°-80°	86.0	4.0
80°-90°	18.5	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°	775.9	35.8
0°-40°	1192.5	55.0
0°-60°	1870.5	86.2
0°-90°	2169.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2169.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1105	1105	1105	1105	1105	
5°	1086	1084	1084	1083	1083	103
15°	1015	1015	1005	995	991	285
25°	880	875	861	830	807	404
35°	714	709	674	623	608	446
45°	548	536	490	450	432	422
55°	381	369	335	295	280	341
65°	226	213	193	197	164	223
75°	91	84	79	75	83	97
85°	13	14	15	17	18	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1104.9	1104.9	1104.9	1104.9	1104.9
2.5°	1097.2	1097.2	1097.2	1095.9	1095.9
5°	1085.7	1084.4	1084.4	1083.1	1083.1
7.5°	1076.8	1075.5	1074.2	1072.9	1070.4
10°	1064.0	1064.0	1062.7	1056.3	1055.0
12.5°	1043.5	1042.3	1037.2	1028.2	1025.7
15°	1015.4	1015.4	1005.2	995.0	991.2
17.5°	984.8	983.5	970.7	960.5	955.4
20°	951.6	949.0	936.3	919.7	910.7
22.5°	914.5	914.5	899.2	877.5	868.6
25°	880.1	874.9	860.9	830.2	807.3
27.5°	840.5	832.8	817.5	774.0	747.2
30°	797.0	793.2	771.5	715.3	694.8
32.5°	756.2	749.8	726.8	668.0	651.4
35°	714.0	708.9	674.4	623.3	608.0
37.5°	671.9	665.5	622.0	581.2	562.0
40°	629.7	622.0	574.8	537.7	517.3
42.5°	590.1	579.9	533.9	494.3	471.3
45°	548.0	536.5	490.5	449.6	431.7
47.5°	505.8	495.6	453.4	411.3	390.9
50°	461.1	452.2	413.8	371.7	350.0
52.5°	424.1	410.0	373.0	330.8	312.9
55°	380.6	369.1	334.7	295.1	279.7
57.5°	341.0	329.5	297.6	260.6	247.8
60°	304.0	287.4	260.6	228.6	218.4
62.5°	263.1	250.3	227.4	200.5	213.3
65°	226.1	213.3	192.9	196.7	163.5
67.5°	185.2	178.8	160.9	143.1	137.9
70°	150.7	143.1	136.7	117.5	112.4
72.5°	120.1	112.4	103.5	93.2	89.4
75°	90.7	84.3	79.2	75.4	83.0
77.5°	62.6	60.0	56.2	52.4	51.1
80°	40.9	39.6	38.3	37.0	35.8
82.5°	24.3	24.3	24.3	24.3	24.3
85°	12.8	14.1	15.3	16.6	17.9
87.5°	7.7	7.7	8.9	10.2	11.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)