

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: P560628

Luminaire Tested: FSR-12-2-LD4-2STD-40-UNV-80-86-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560628
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-LD4-2STD-40-UNV-80-86-EDD-90
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2509.0 lumens
Efficiency: N/A
Efficacy: 75.3 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

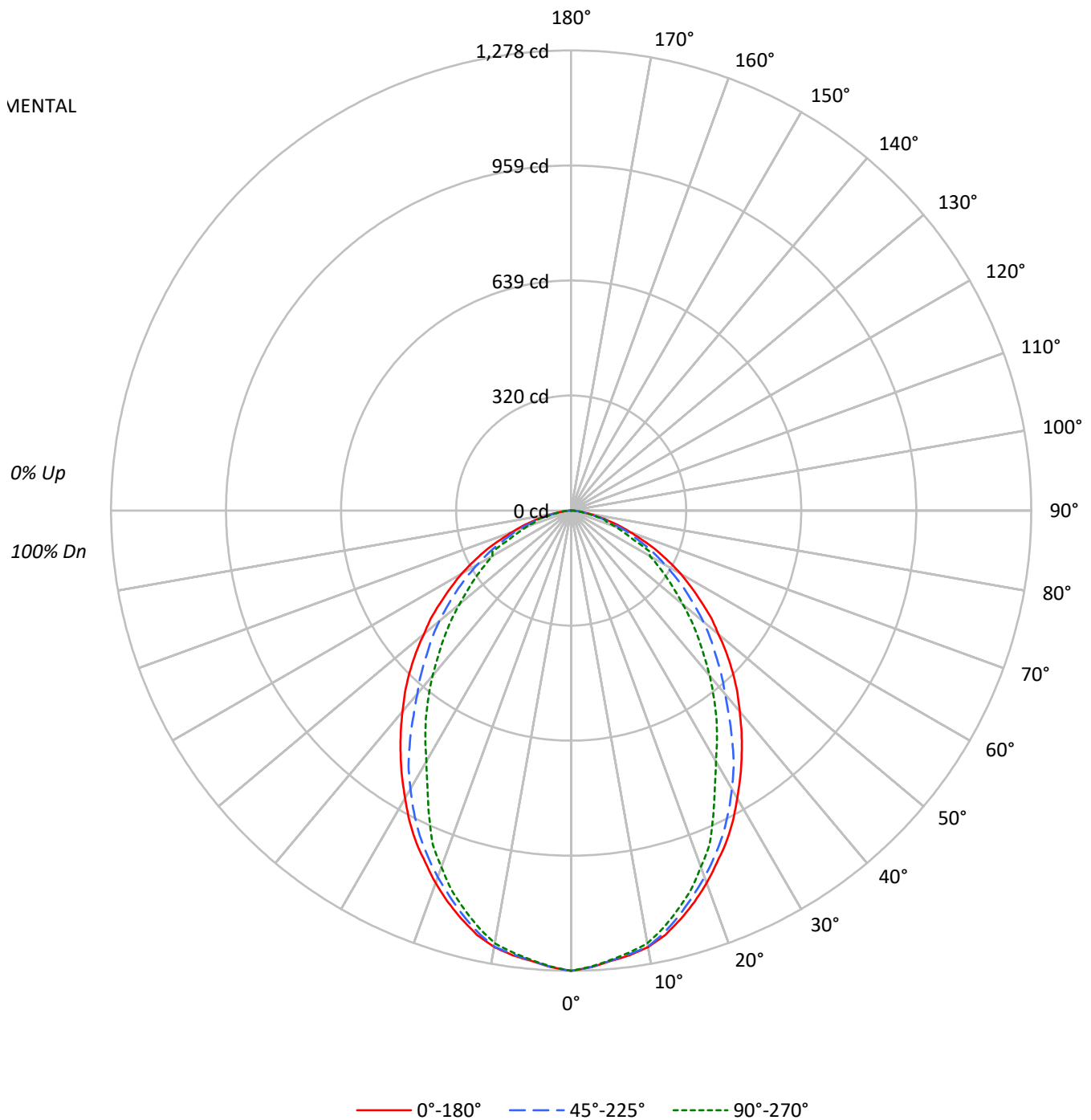
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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									87																			
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75									75																			
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65									65																			
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56									56																			
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50									50																			
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44									44																			
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40									40																			
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36									36																			
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33									33																			
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30									30																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6879	6879	6879
5°	6785	6777	6769
10°	6726	6718	6669
15°	6545	6479	6389
20°	6304	6203	6034
25°	6045	5913	5545
30°	5730	5546	4995
35°	5426	5125	4621
40°	5117	4671	4204
45°	4825	4319	3801
50°	4466	4008	3389
55°	4131	3632	3036
60°	3785	3244	2720
65°	3330	2841	2408
70°	2743	2488	2046
75°	2181	1905	1996
80°	1466	1373	1283
85°	914	1093	1278

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4825 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.0	4.7
10°-20°	326.5	13.0
20°-30°	452.0	18.0
30°-40°	482.0	19.2
40°-50°	439.7	17.5
50°-60°	344.5	13.7
60°-70°	224.5	8.9
70°-80°	99.5	4.0
80°-90°	21.4	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°	897.5	35.8
0°-40°	1379.5	55.0
0°-60°	2163.7	86.2
0°-90°	2509.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2509.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1278	1278	1278	1278	1278	
5°	1256	1254	1254	1253	1253	119
15°	1175	1175	1163	1151	1147	330
25°	1018	1012	996	960	934	467
35°	826	820	780	721	703	516
45°	634	621	567	520	499	488
55°	440	427	387	341	324	395
65°	262	247	223	228	189	258
75°	105	98	92	87	96	112
85°	15	16	18	19	21	21
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1278.1	1278.1	1278.1	1278.1	1278.1
2.5°	1269.2	1269.2	1269.2	1267.7	1267.7
5°	1255.9	1254.4	1254.4	1252.9	1252.9
7.5°	1245.5	1244.1	1242.6	1241.1	1238.2
10°	1230.8	1230.8	1229.3	1221.9	1220.4
12.5°	1207.1	1205.7	1199.7	1189.4	1186.4
15°	1174.6	1174.6	1162.8	1151.0	1146.6
17.5°	1139.2	1137.7	1122.9	1111.1	1105.2
20°	1100.7	1097.8	1083.0	1063.8	1053.5
22.5°	1057.9	1057.9	1040.2	1015.1	1004.7
25°	1018.0	1012.1	995.8	960.4	933.8
27.5°	972.2	963.3	945.6	895.4	864.3
30°	922.0	917.5	892.4	827.4	803.8
32.5°	874.7	867.3	840.7	772.7	753.5
35°	825.9	820.0	780.1	721.0	703.3
37.5°	777.2	769.8	719.6	672.3	650.1
40°	728.4	719.6	664.9	622.0	598.4
42.5°	682.6	670.8	617.6	571.8	545.2
45°	633.9	620.6	567.4	520.1	499.4
47.5°	585.1	573.3	524.5	475.8	452.1
50°	533.4	523.0	478.7	430.0	404.8
52.5°	490.5	474.3	431.4	382.7	362.0
55°	440.3	427.0	387.1	341.3	323.6
57.5°	394.5	381.2	344.3	301.4	286.6
60°	351.6	332.4	301.4	264.5	252.7
62.5°	304.4	289.6	263.0	232.0	246.7
65°	261.5	246.7	223.1	227.5	189.1
67.5°	214.2	206.9	186.2	165.5	159.6
70°	174.3	165.5	158.1	135.9	130.0
72.5°	138.9	130.0	119.7	107.9	103.4
75°	104.9	97.5	91.6	87.2	96.0
77.5°	72.4	69.4	65.0	60.6	59.1
80°	47.3	45.8	44.3	42.8	41.4
82.5°	28.1	28.1	28.1	28.1	28.1
85°	14.8	16.3	17.7	19.2	20.7
87.5°	8.9	8.9	10.3	11.8	13.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)