

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: P590457

Luminaire Tested: FSR-24-2-LD4-3HI-40-UNV-80-88-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590457
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-2-LD4-3HI-40-UNV-80-88-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

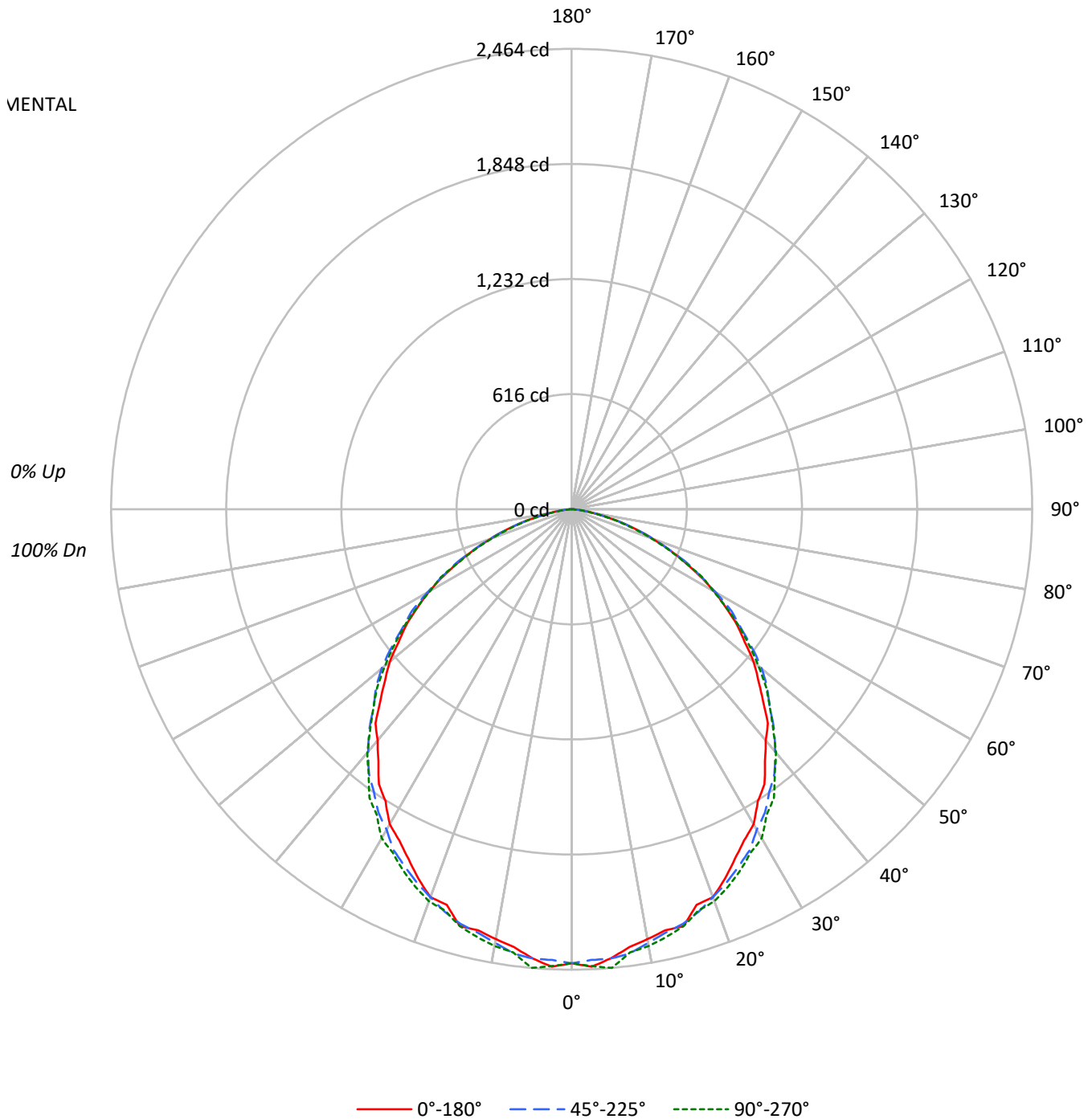
Lumens per Lamp: N/A
Luminaire Lumens: 6123.0 lumens
Efficiency: N/A
Efficacy: 94.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 64.8
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																		
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																												
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86																												
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73																												
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62																												
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53																												
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46																												
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41																												
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36																												
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32																												
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29																												
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6538	6538	6538
5°	6516	6518	6656
10°	6384	6440	6485
15°	6434	6400	6435
20°	6326	6326	6393
25°	6131	6265	6334
30°	6047	6153	6317
35°	5905	6059	6195
40°	5675	5948	5975
45°	5503	5699	5707
50°	5322	5562	5456
55°	5071	5170	5133
60°	4742	4789	4703
65°	4229	4336	4199
70°	3628	3640	3539
75°	2874	2866	2756
80°	1925	1872	1799
85°	1047	1037	969

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 5846 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	228.5	3.7
10°-20°	647.7	10.6
20°-30°	970.3	15.8
30°-40°	1150.1	18.8
40°-50°	1152.2	18.8
50°-60°	978.0	16.0
60°-70°	659.4	10.8
70°-80°	289.7	4.7
80°-90°	47.1	0.8
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°	1846.5	30.2
0°-40°	2996.6	48.9
0°-60°	5126.8	83.7
0°-90°	6123.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6123.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2430	2430	2430	2430	2430	
5°	2412	2407	2413	2406	2464	227
15°	2310	2283	2297	2309	2310	643
25°	2065	2076	2110	2138	2133	955
35°	1797	1803	1844	1887	1886	1116
45°	1446	1473	1498	1536	1500	1119
55°	1081	1074	1102	1094	1094	962
65°	664	655	681	655	659	660
75°	276	271	276	256	265	296
85°	34	33	34	33	31	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2429.5	2429.5	2429.5	2429.5	2429.5
2.5°	2450.5	2432.0	2414.7	2434.8	2447.0
5°	2412.2	2406.6	2413.1	2405.9	2464.0
7.5°	2362.6	2384.3	2396.8	2389.0	2392.4
10°	2336.3	2328.8	2356.7	2376.1	2373.3
12.5°	2308.1	2319.4	2320.9	2341.9	2343.8
15°	2309.6	2283.0	2297.1	2309.0	2309.9
17.5°	2219.9	2248.8	2258.5	2285.8	2251.9
20°	2208.9	2187.9	2208.9	2236.9	2232.5
22.5°	2141.5	2118.0	2163.1	2187.9	2186.3
25°	2065.0	2076.2	2110.1	2137.7	2133.3
27.5°	1997.8	2011.0	2059.3	2097.3	2072.8
30°	1946.1	1939.5	1980.3	2014.1	2033.0
32.5°	1853.5	1877.4	1925.1	1958.6	1940.7
35°	1797.4	1802.7	1844.4	1887.1	1885.8
37.5°	1699.2	1724.0	1782.6	1794.6	1783.6
40°	1615.5	1640.2	1693.2	1706.1	1700.8
42.5°	1553.7	1558.0	1603.5	1618.3	1594.7
45°	1446.1	1473.0	1497.5	1536.1	1499.7
47.5°	1354.5	1367.0	1419.7	1430.1	1410.9
50°	1271.3	1275.7	1328.7	1315.9	1303.3
52.5°	1166.9	1185.4	1215.2	1212.7	1197.9
55°	1080.9	1073.7	1102.0	1094.4	1094.1
57.5°	977.7	990.3	1013.5	1001.6	982.4
60°	881.1	881.4	889.9	876.4	873.9
62.5°	773.5	777.3	779.2	762.6	789.5
65°	664.1	655.3	681.0	655.0	659.4
67.5°	563.4	567.8	565.3	548.9	555.2
70°	461.1	466.8	462.7	444.2	449.8
72.5°	367.6	360.7	365.1	341.9	352.6
75°	276.4	270.7	275.7	256.3	265.1
77.5°	188.2	192.6	189.5	179.1	185.1
80°	124.2	120.8	120.8	114.8	116.1
82.5°	72.5	69.0	68.1	66.2	69.0
85°	33.9	32.9	33.6	32.6	31.4
87.5°	12.2	12.5	12.5	11.9	11.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)