

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: P973208

Luminaire Tested: FLR2-14-80HE-L840-CP250

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973208
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-1)
Test Lab: INNOVATION CENTER
Issue Date: 3/13/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FLR2-14-80HE-L840-CP250
Description: 1*4 FLR-2.0 8000 Lumen High Efficacy at 4000CCT & 80CRI with Clear Polycarbonate (0.250" thickness)

Light Source:
Ballast/Driver: -

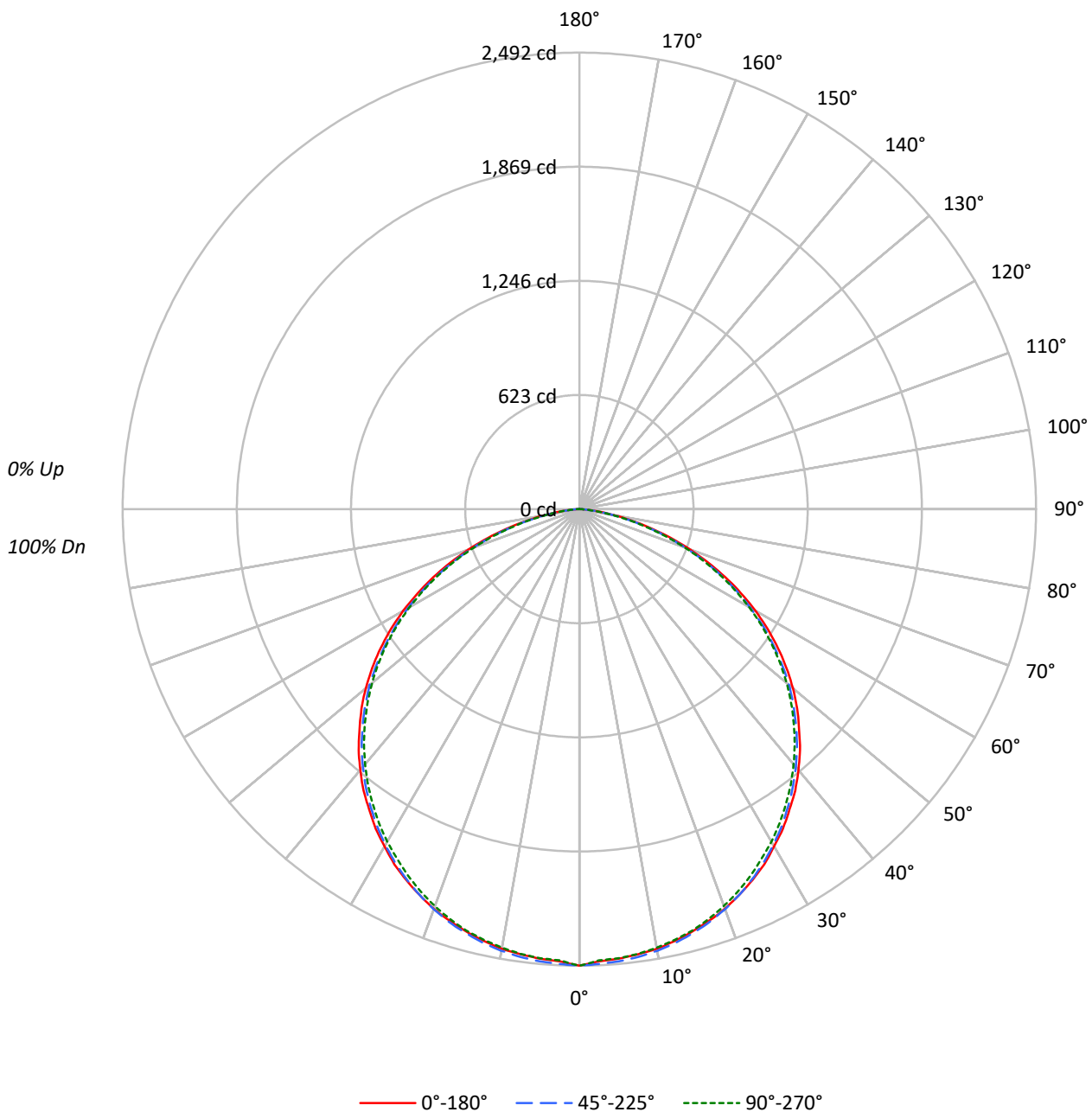
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6975.3 lumens
Efficiency: N/A
Efficacy: 112.7 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.25 / 1.38
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 61.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor:
Total Harmonic Distortion (THDi):
Frequency (hertz): 60
Stabilization Time: HR
Operation Time: HR
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	0														
RCR																																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100						100														
1	109	105	101	97	107	102	99	95	98	95	92	94	92	89	91	89	87	85						85														
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71						71														
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	70	66	62	60						60														
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51						51														
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	57	51	46	44						44														
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39						39														
7	65	52	43	37	64	51	43	37	49	42	37	48	41	36	47	41	36	34						34														
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	30						30														
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	27						27														
10	53	40	32	27	52	39	32	27	38	32	27	38	31	27	37	31	26	25						25														

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6706	6706	6706
5°	6654	6693	6646
10°	6660	6689	6641
15°	6650	6676	6635
20°	6649	6655	6602
25°	6634	6622	6561
30°	6606	6577	6513
35°	6571	6520	6456
40°	6534	6454	6388
45°	6454	6363	6297
50°	6370	6253	6180
55°	6209	6064	6006
60°	5968	5802	5752
65°	5589	5425	5366
70°	5040	4837	4796
75°	4225	4011	3969
80°	3070	2861	2782
85°	1624	1433	1306

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6454 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	236.1	3.4
10°-20°	677.9	9.7
20°-30°	1029.9	14.8
30°-40°	1245.8	17.9
40°-50°	1294.8	18.6
50°-60°	1159.3	16.6
60°-70°	845.5	12.1
70°-80°	416.4	6.0
80°-90°	69.6	1.0
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°	1943.9	27.9
0°-40°	3189.7	45.7
0°-60°	5643.8	80.9
0°-90°	6975.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6975.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2492	2492	2492	2492	2492	
5°	2463	2490	2478	2502	2460	234
15°	2387	2409	2396	2417	2382	674
25°	2234	2246	2230	2240	2210	1030
35°	2000	2004	1985	1993	1965	1253
45°	1696	1694	1672	1675	1655	1309
55°	1324	1312	1292	1289	1280	1181
65°	878	868	852	846	843	867
75°	406	399	386	382	382	433
85°	53	50	46	41	42	76
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2492.2	2492.2	2492.2	2492.2	2492.2
2.5°	2470.5	2498.4	2485.0	2509.7	2465.4
5°	2463.3	2490.1	2477.8	2501.5	2460.2
7.5°	2450.9	2478.8	2465.4	2488.1	2448.9
10°	2437.5	2462.3	2447.8	2470.5	2430.3
12.5°	2413.8	2438.6	2425.1	2445.8	2408.6
15°	2387.0	2408.6	2396.3	2416.9	2381.8
17.5°	2356.0	2376.7	2363.3	2381.8	2346.7
20°	2322.0	2338.5	2324.1	2339.5	2305.5
22.5°	2279.7	2295.2	2279.7	2290.0	2260.1
25°	2234.3	2245.7	2230.2	2240.5	2209.6
27.5°	2185.8	2192.0	2176.5	2184.8	2152.8
30°	2126.0	2133.2	2116.7	2127.0	2096.1
32.5°	2068.2	2072.4	2053.8	2062.0	2034.2
35°	2000.2	2004.3	1984.7	1992.9	1965.1
37.5°	1935.2	1934.1	1913.5	1918.7	1894.9
40°	1859.9	1858.8	1837.2	1841.3	1818.6
42.5°	1782.5	1778.4	1757.7	1759.8	1739.2
45°	1695.8	1693.8	1672.1	1675.2	1654.6
47.5°	1612.3	1606.1	1584.4	1585.5	1567.9
50°	1521.5	1512.2	1493.7	1491.6	1476.1
52.5°	1424.6	1414.2	1393.6	1391.5	1380.2
55°	1323.5	1312.1	1292.5	1289.4	1280.1
57.5°	1219.3	1204.8	1189.4	1183.2	1176.0
60°	1108.9	1095.5	1078.0	1071.8	1068.7
62.5°	994.4	981.0	967.6	961.4	957.3
65°	877.8	867.5	852.0	845.9	842.8
67.5°	759.2	749.9	735.5	728.3	727.2
70°	640.6	631.3	614.8	610.7	609.6
72.5°	522.0	513.7	498.2	494.1	494.1
75°	406.4	399.2	385.8	381.7	381.7
77.5°	297.1	290.9	280.6	275.4	275.4
80°	198.1	193.9	184.6	180.5	179.5
82.5°	114.5	112.4	104.2	100.1	102.1
85°	52.6	50.5	46.4	41.3	42.3
87.5°	13.4	12.4	9.3	7.2	9.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)