

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: P973209

Luminaire Tested: FLR2-14-20HE-L840-CP375

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973209
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: FLR2-14-20HE-L840-CP375
Description: 1*4 FLR-2.0 2000 Lumen High Efficacy at 4000CCT & 80CRI with Clear Polycarbonate (0.375" thickness)

Light Source:
Ballast/Driver: -

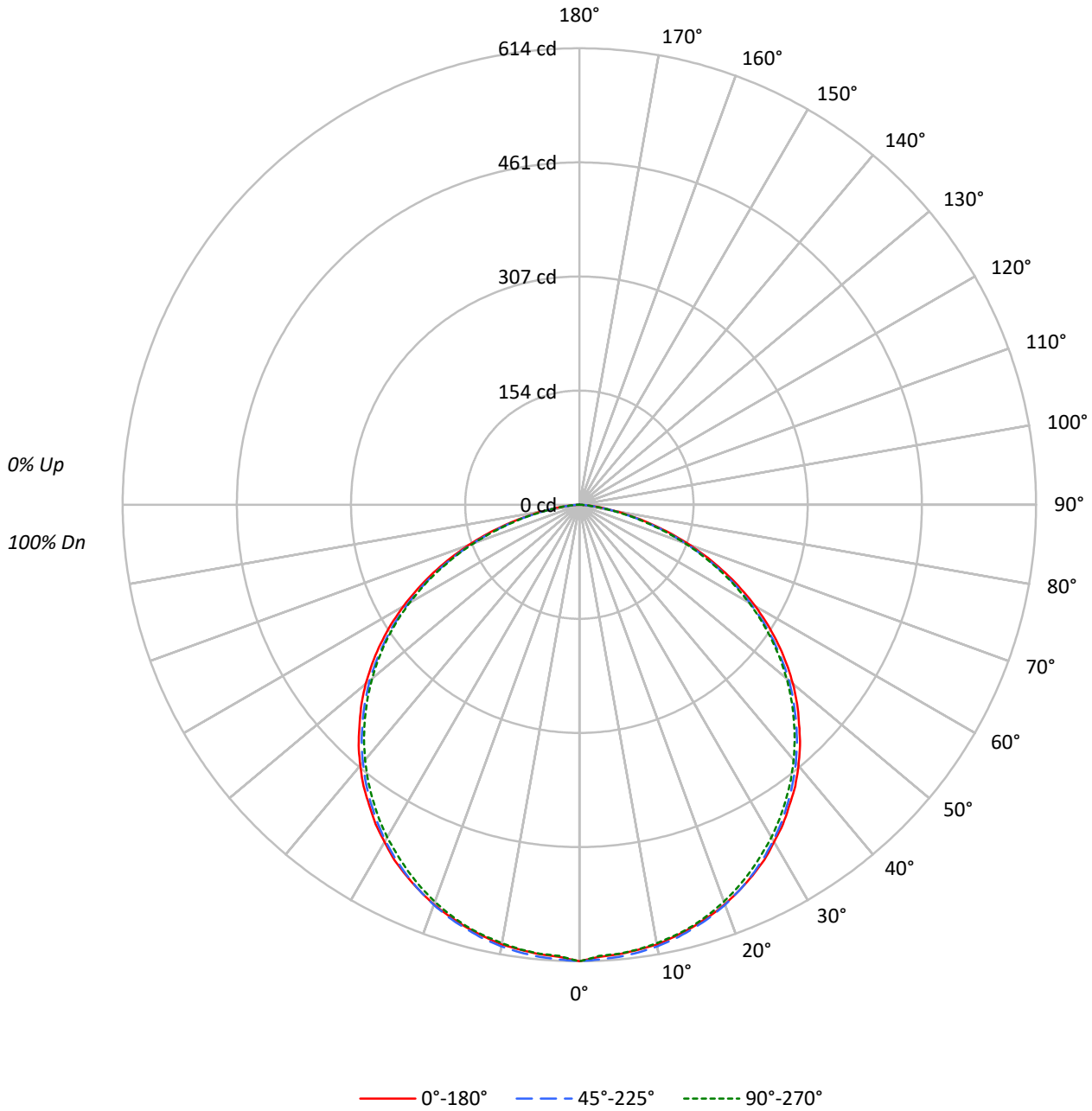
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1718.7 lumens
Efficiency: N/A
Efficacy: 116.1 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): 14.8
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

TEST NUMBER: P973209
CATALOG NUMBER: FLR2-14-20HE-L840-CP375

Luminous Intensity Polar Plot





TEST NUMBER: P973209
 CATALOG NUMBER: FLR2-14-20HE-L840-CP375

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°	1653	1653	1653
5°	1640	1649	1638
10°	1641	1648	1636
15°	1639	1645	1635
20°	1638	1640	1627
25°	1635	1632	1616
30°	1628	1621	1605
35°	1619	1606	1591
40°	1610	1590	1574
45°	1590	1568	1552
50°	1569	1541	1523
55°	1530	1494	1480
60°	1470	1429	1417
65°	1377	1337	1323
70°	1242	1192	1182
75°	1041	989	977
80°	756	705	685
85°	401	352	321

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1590 cd/sqm



TEST NUMBER: P973209
 CATALOG NUMBER: FLR2-14-20HE-L840-CP375

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.2	3.4
10°-20°	167.0	9.7
20°-30°	253.8	14.8
30°-40°	307.0	17.9
40°-50°	319.0	18.6
50°-60°	285.6	16.6
60°-70°	208.3	12.1
70°-80°	102.6	6.0
80°-90°	17.2	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°	479.0	27.9
0°-40°	786.0	45.7
0°-60°	1390.6	80.9
0°-90°	1718.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1718.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	614	614	614	614	614	
5°	607	614	610	616	606	58
15°	588	594	590	596	587	166
25°	550	553	550	552	544	254
35°	493	494	489	491	484	309
45°	418	417	412	413	408	323
55°	326	323	318	318	315	291
65°	216	214	210	208	208	214
75°	100	98	95	94	94	107
85°	13	12	11	10	10	19
90°	0	0	0	0	0	



TEST NUMBER: P973209
 CATALOG NUMBER: FLR2-14-20HE-L840-CP375

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	614.1	614.1	614.1	614.1	614.1
2.5°	608.7	615.6	612.3	618.4	607.5
5°	607.0	613.6	610.5	616.4	606.2
7.5°	603.9	610.8	607.5	613.1	603.4
10°	600.6	606.7	603.2	608.7	598.8
12.5°	594.8	600.9	597.6	602.6	593.5
15°	588.2	593.5	590.4	595.5	586.9
17.5°	580.5	585.6	582.3	586.9	578.2
20°	572.1	576.2	572.7	576.5	568.1
22.5°	561.7	565.5	561.7	564.3	556.9
25°	550.5	553.3	549.5	552.1	544.4
27.5°	538.6	540.1	536.3	538.3	530.5
30°	523.8	525.6	521.6	524.1	516.5
32.5°	509.6	510.6	506.1	508.1	501.2
35°	492.8	493.9	489.0	491.1	484.2
37.5°	476.8	476.6	471.5	472.8	466.9
40°	458.3	458.0	452.7	453.7	448.1
42.5°	439.2	438.2	433.1	433.6	428.5
45°	417.9	417.4	412.0	412.8	407.7
47.5°	397.3	395.7	390.4	390.7	386.3
50°	374.9	372.6	368.0	367.5	363.7
52.5°	351.0	348.5	343.4	342.9	340.1
55°	326.1	323.3	318.5	317.7	315.4
57.5°	300.4	296.9	293.1	291.5	289.8
60°	273.2	269.9	265.6	264.1	263.3
62.5°	245.0	241.7	238.4	236.9	235.9
65°	216.3	213.8	209.9	208.4	207.7
67.5°	187.1	184.8	181.2	179.4	179.2
70°	157.8	155.6	151.5	150.5	150.2
72.5°	128.6	126.6	122.8	121.7	121.7
75°	100.1	98.4	95.1	94.0	94.0
77.5°	73.2	71.7	69.1	67.9	67.9
80°	48.8	47.8	45.5	44.5	44.2
82.5°	28.2	27.7	25.7	24.7	25.2
85°	13.0	12.5	11.4	10.2	10.4
87.5°	3.3	3.1	2.3	1.8	2.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)