

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: P973948

Luminaire Tested: FLR2-22-60HE-L940-CP187

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973948
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-2)
Test Lab: INNOVATION CENTER
Issue Date: 3/13/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FLR2-22-60HE-L940-CP187
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

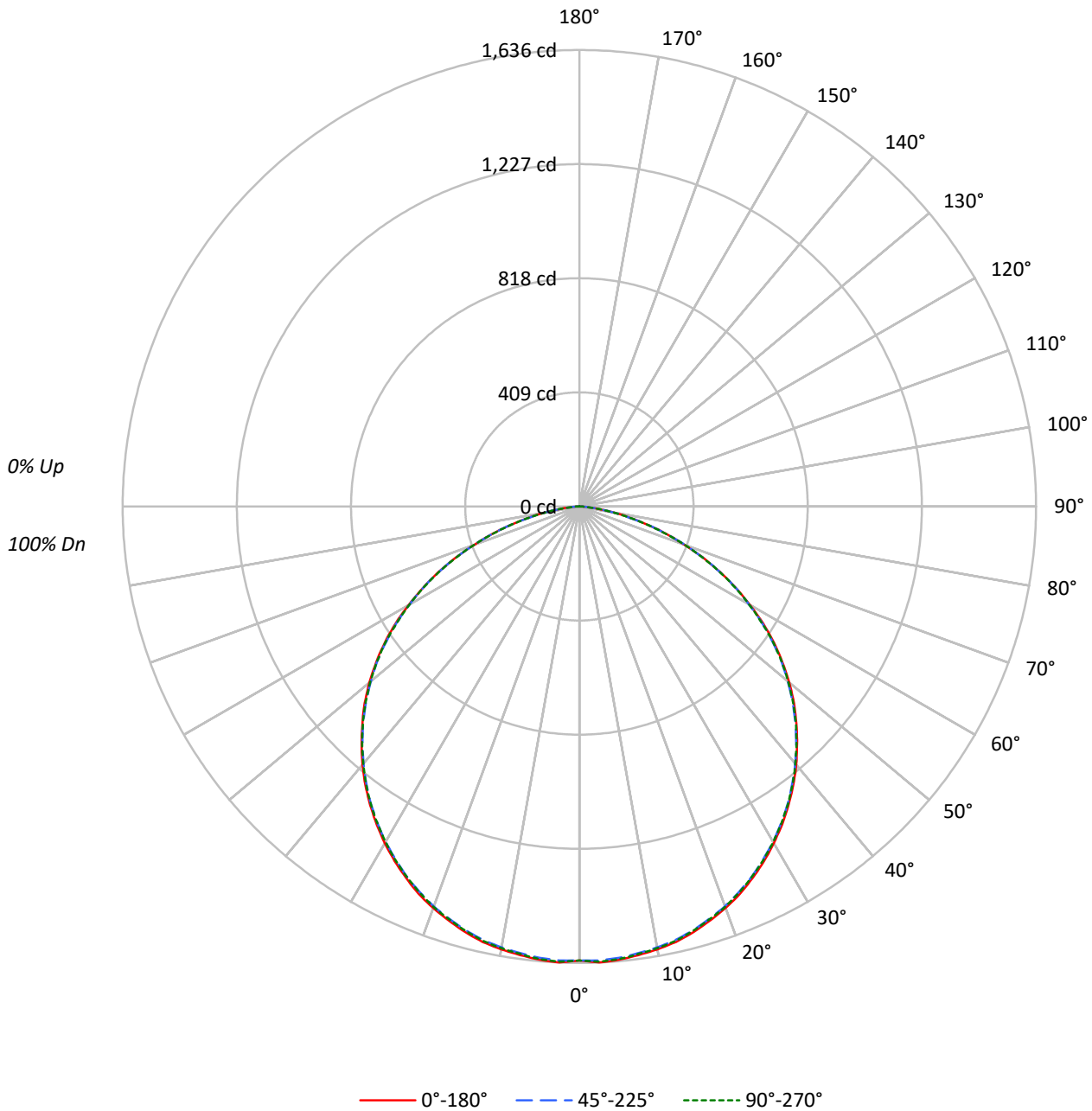
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4549.9 lumens
Efficiency: N/A
Efficacy: 96.0 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 47.4
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	63	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	71	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	50	42	37	48	41	36	47	41	36	34					34															
8	61	47	39	33	59	47	39	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	40	32	27	39	32	27	38	31	27	37	31	26	25					25															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4378	4378	4378
5°	4406	4387	4400
10°	4405	4385	4394
15°	4401	4381	4387
20°	4386	4369	4374
25°	4362	4344	4347
30°	4331	4312	4315
35°	4292	4275	4278
40°	4247	4226	4229
45°	4184	4165	4172
50°	4110	4081	4089
55°	3993	3960	3974
60°	3797	3780	3780
65°	3545	3538	3526
70°	3139	3155	3147
75°	2643	2622	2601
80°	1900	1869	1853
85°	994	994	963

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4184 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.1	3.4
10°-20°	443.0	9.7
20°-30°	673.3	14.8
30°-40°	813.8	17.9
40°-50°	844.7	18.6
50°-60°	755.2	16.6
60°-70°	549.0	12.1
70°-80°	270.0	5.9
80°-90°	46.8	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°	1270.4	27.9
0°-40°	2084.2	45.8
0°-60°	3684.0	81.0
0°-90°	4549.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4549.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1627	1627	1627	1627	1627	
5°	1631	1612	1624	1618	1629	155
15°	1580	1562	1573	1569	1575	446
25°	1469	1453	1463	1460	1464	677
35°	1306	1297	1301	1302	1302	817
45°	1099	1094	1094	1096	1096	848
55°	851	846	844	846	847	759
65°	557	559	556	556	554	549
75°	254	256	252	253	250	270
85°	32	33	32	32	31	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1627.0	1627.0	1627.0	1627.0	1627.0
2.5°	1636.0	1616.9	1629.0	1621.9	1633.0
5°	1631.0	1611.9	1623.9	1617.9	1629.0
7.5°	1621.9	1602.8	1614.9	1608.9	1617.9
10°	1611.9	1591.8	1604.9	1598.8	1607.9
12.5°	1598.8	1579.7	1591.8	1586.8	1594.8
15°	1579.7	1561.6	1572.7	1568.7	1574.7
17.5°	1556.6	1538.5	1549.6	1546.6	1551.6
20°	1531.5	1514.4	1525.5	1522.5	1527.5
22.5°	1503.4	1485.3	1495.3	1493.3	1497.3
25°	1469.2	1453.1	1463.2	1460.1	1464.2
27.5°	1433.0	1417.9	1426.0	1426.0	1428.0
30°	1393.8	1379.8	1387.8	1387.8	1388.8
32.5°	1351.6	1340.6	1345.6	1346.6	1346.6
35°	1306.4	1297.3	1301.4	1302.4	1302.4
37.5°	1259.2	1250.1	1253.1	1255.1	1255.1
40°	1208.9	1200.9	1202.9	1204.9	1203.9
42.5°	1154.7	1148.6	1149.6	1151.6	1151.6
45°	1099.4	1094.4	1094.4	1096.4	1096.4
47.5°	1043.1	1038.1	1036.1	1038.1	1038.1
50°	981.8	976.8	974.8	976.8	976.8
52.5°	917.5	912.5	912.5	912.5	913.5
55°	851.2	846.1	844.1	846.1	847.1
57.5°	780.8	778.8	775.8	776.8	773.8
60°	705.5	705.5	702.4	704.4	702.4
62.5°	632.1	634.1	631.1	631.1	629.1
65°	556.7	558.7	555.7	555.7	553.7
67.5°	479.3	482.4	478.3	478.3	476.3
70°	399.0	405.0	401.0	402.0	400.0
72.5°	326.6	329.6	325.6	325.6	323.6
75°	254.2	256.3	252.2	253.2	250.2
77.5°	182.9	185.9	181.9	182.9	181.9
80°	122.6	123.6	120.6	121.6	119.6
82.5°	71.3	72.4	71.3	70.3	69.3
85°	32.2	33.2	32.2	32.2	31.2
87.5°	8.0	8.0	8.0	8.0	8.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)