

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: P688021

Luminaire Tested: FLR-HA-22-L3C3 (HI)-40-CP375

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688021
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2207-724-15)
Test Lab: INNOVATION CENTER
Issue Date: 5/22/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FLR-HA-22-L3C3 (HI)-40-CP375
Description: Fail-Safe - FLR Fully Luminous Recessed 2X2 4000K Luminaire at High Lumen setting for High Abuse
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

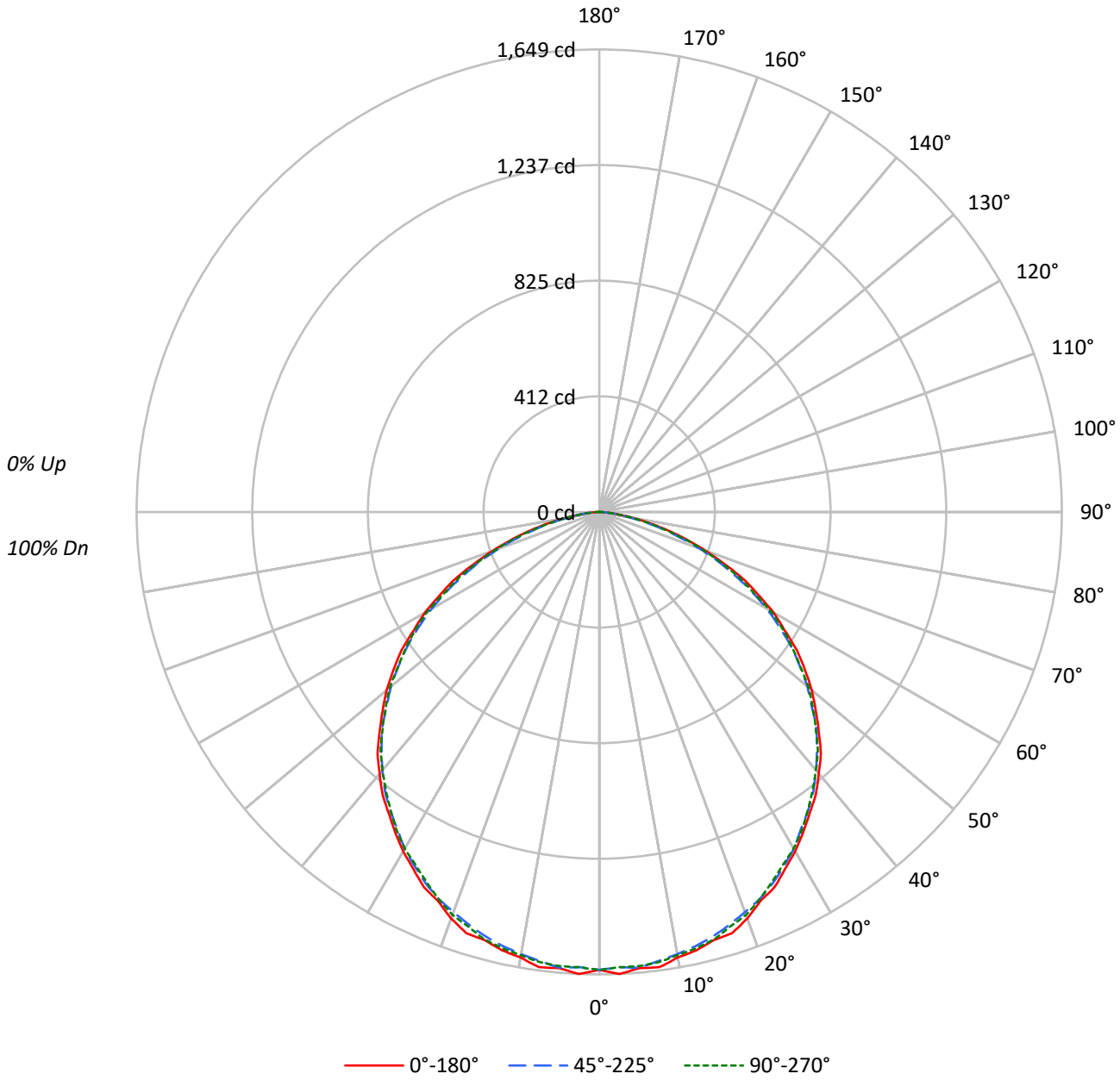
Lumens per Lamp: N/A
Luminaire Lumens: 4501.0 lumens
Efficiency: N/A
Efficacy: 116.9 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 38.5
Input Voltage (V): 120
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	107	103	99	96	98	95	93	94	92	90	91	89	87	85
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	76	73	71
3	91	81	73	66	88	79	72	66	76	70	65	73	68	63	71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	52	46	41	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4394	4394	4394
5°	4411	4407	4392
10°	4409	4374	4386
15°	4402	4365	4398
20°	4418	4348	4379
25°	4386	4341	4323
30°	4340	4310	4307
35°	4300	4268	4259
40°	4278	4225	4221
45°	4212	4168	4155
50°	4140	4053	4080
55°	4034	3913	3933
60°	3862	3703	3790
65°	3618	3384	3493
70°	3168	2964	3076
75°	2623	2363	2493
80°	1858	1664	1734
85°	939	827	883

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4212 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.5	3.4
10°-20°	443.7	9.9
20°-30°	673.6	15.0
30°-40°	813.0	18.1
40°-50°	842.8	18.7
50°-60°	746.6	16.6
60°-70°	533.0	11.8
70°-80°	252.5	5.6
80°-90°	41.3	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°	1271.8	28.3
0°-40°	2084.8	46.3
0°-60°	3674.3	81.6
0°-90°	4501.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4501.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1633	1633	1633	1633	1633	
5°	1633	1625	1631	1620	1626	156
15°	1580	1571	1567	1576	1578	448
25°	1477	1453	1462	1463	1456	679
35°	1309	1296	1299	1294	1297	821
45°	1107	1091	1095	1092	1092	855
55°	860	836	834	830	838	765
65°	568	532	532	535	548	555
75°	252	232	227	233	240	269
85°	30	28	27	26	29	45
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1633.0	1633.0	1633.0	1633.0	1633.0
2.5°	1649.1	1620.5	1625.0	1628.6	1625.0
5°	1633.0	1625.0	1631.3	1619.6	1625.9
7.5°	1637.5	1617.8	1615.1	1611.6	1619.6
10°	1613.4	1601.7	1600.8	1607.1	1605.3
12.5°	1600.8	1591.0	1585.6	1586.5	1593.7
15°	1580.2	1571.3	1566.8	1575.8	1578.5
17.5°	1574.9	1543.6	1543.6	1545.4	1550.7
20°	1542.7	1522.1	1518.5	1522.1	1529.2
22.5°	1501.5	1494.3	1494.3	1497.0	1495.2
25°	1477.3	1453.2	1462.1	1463.0	1455.9
27.5°	1435.3	1426.3	1424.5	1421.0	1418.3
30°	1396.8	1382.5	1387.0	1387.0	1386.1
32.5°	1353.9	1344.0	1339.5	1340.4	1344.9
35°	1309.1	1295.7	1299.3	1293.9	1296.6
37.5°	1268.9	1251.0	1254.5	1251.8	1249.2
40°	1217.8	1203.5	1202.6	1198.2	1201.7
42.5°	1169.5	1148.9	1148.1	1148.9	1153.4
45°	1106.9	1090.8	1095.3	1091.7	1091.7
47.5°	1046.9	1036.2	1028.1	1029.0	1032.6
50°	988.8	968.2	968.2	961.0	974.5
52.5°	924.3	903.8	901.1	903.8	902.0
55°	859.9	835.8	834.0	830.4	838.4
57.5°	782.1	758.8	760.6	762.4	774.0
60°	717.6	686.3	688.1	689.9	704.2
62.5°	638.0	612.1	611.2	613.8	617.4
65°	568.2	531.5	531.5	535.1	548.5
67.5°	479.6	457.3	456.4	460.8	466.2
70°	402.7	376.7	376.7	382.1	391.0
72.5°	325.7	304.2	300.7	308.7	315.0
75°	252.3	231.8	227.3	232.7	239.8
77.5°	180.8	167.3	163.8	169.1	170.9
80°	119.9	108.3	107.4	110.1	111.9
82.5°	68.9	61.7	59.1	61.7	62.6
85°	30.4	27.7	26.8	25.9	28.6
87.5°	7.2	7.2	7.2	7.2	8.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)