

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P302572

Luminaire Tested: **FSP-22-42-40-CA08**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P302572
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1905-304-8)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FSP-22-42-40-CA08
Description: 2x2 Fail Safe Flat Panel Clear Acrylic Lens .08"
Light Source: (210) 4000 CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment:

<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
AS-5443-2	Good	REFLECTOR
AS-5443-3	Good	DRIVER
AS-5443-4	Good	UPPER MODULE
AS-5443-5	Good	LENS
AS-5443-6	Good	DRIVER 2
AS-5443-7	Good	TRIM RING

Summary

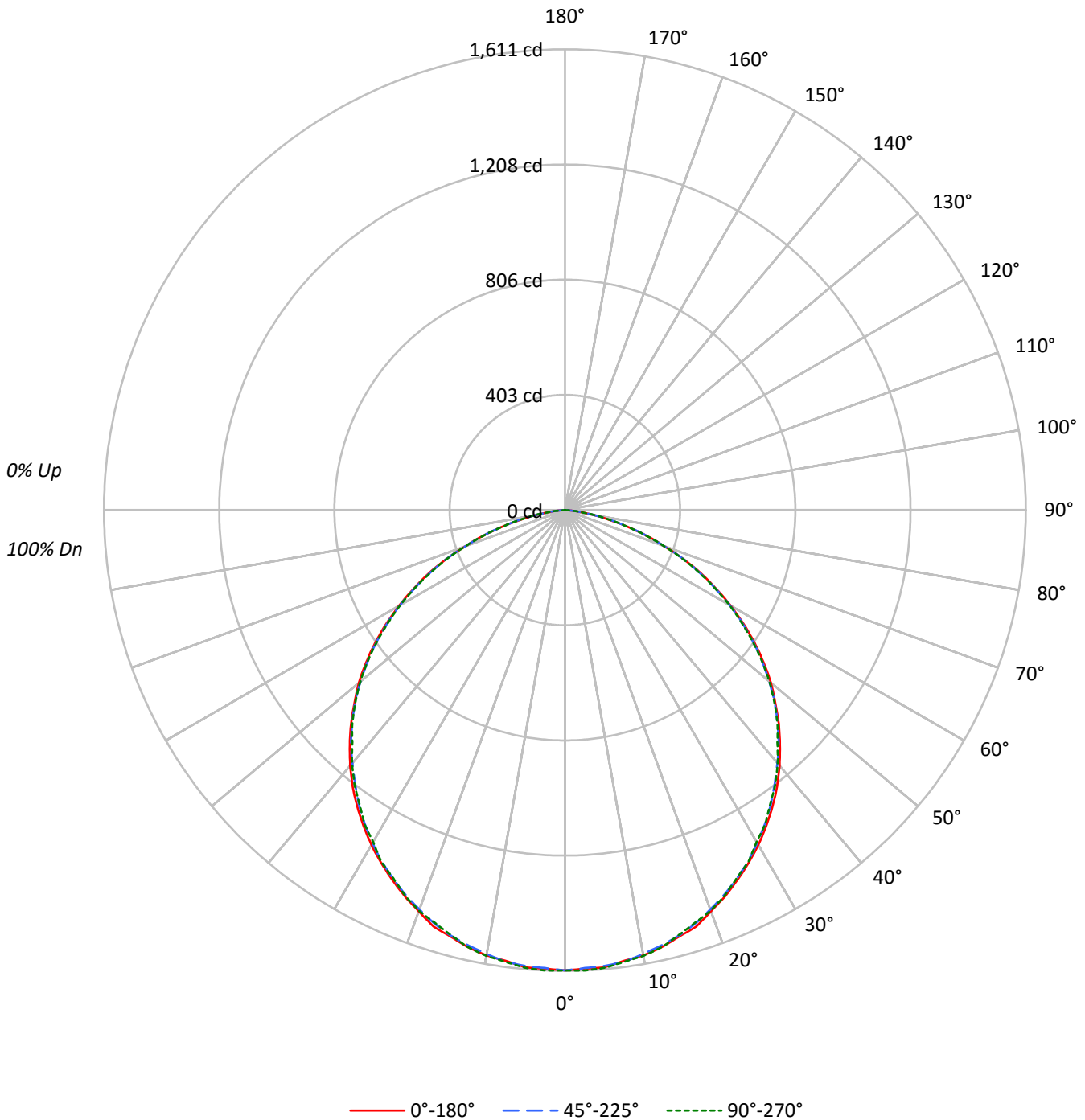
Lumens per Lamp: N/A
Luminaire Lumens: 4366.3 lumens
Efficiency: N/A
Efficacy: 114.0 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.24 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 38.3
Input Voltage (V): NR
Input Current (A_{in}): 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: 25 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	95	98	95	92	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	89	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	52
5	77	64	55	49	75	63	55	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	42	69	57	48	42	55	47	42	53	47	41	52	46	41	39
7	66	52	44	37	64	51	43	37	50	42	37	48	42	37	47	41	37	35
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4332	4332	4332
5°	4334	4321	4339
10°	4320	4306	4324
15°	4300	4291	4286
20°	4275	4255	4270
25°	4236	4221	4216
30°	4201	4175	4165
35°	4158	4125	4114
40°	4101	4059	4065
45°	4024	3998	3998
50°	3937	3901	3908
55°	3800	3768	3760
60°	3602	3584	3575
65°	3356	3312	3301
70°	2920	2920	2906
75°	2396	2378	2378
80°	1706	1654	1733
85°	889	889	889



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.1	3.5
10°-20°	434.8	10.0
20°-30°	656.1	15.0
30°-40°	787.8	18.0
40°-50°	812.1	18.6
50°-60°	719.3	16.5
60°-70°	515.2	11.8
70°-80°	246.1	5.6
80°-90°	42.9	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°	1243.0	28.5
0°-40°	2030.7	46.5
0°-60°	3562.1	81.6
0°-90°	4366.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4366.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1610	1610	1610	1610	1610	
5°	1605	1600	1600	1601	1606	152
15°	1544	1545	1540	1537	1538	436
25°	1427	1425	1422	1422	1420	658
35°	1266	1266	1256	1259	1252	791
45°	1057	1057	1050	1049	1050	815
55°	810	813	803	803	802	722
65°	527	524	520	518	518	518
75°	230	225	229	232	229	246
85°	29	30	29	29	29	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1609.7	1609.7	1609.7	1609.7	1609.7
2.5°	1604.6	1604.6	1602.9	1606.3	1611.4
5°	1604.6	1599.5	1599.5	1601.2	1606.3
7.5°	1589.4	1591.1	1592.8	1589.4	1592.8
10°	1580.9	1577.5	1575.8	1579.2	1582.6
12.5°	1565.6	1562.3	1558.9	1562.3	1565.6
15°	1543.6	1545.3	1540.2	1536.8	1538.5
17.5°	1526.7	1516.5	1516.5	1514.8	1513.1
20°	1492.8	1489.4	1486.0	1487.7	1491.1
22.5°	1462.3	1460.6	1455.5	1457.2	1458.9
25°	1426.7	1425.0	1421.6	1421.6	1419.9
27.5°	1391.1	1389.4	1386.0	1384.3	1387.7
30°	1352.1	1353.8	1343.7	1343.7	1340.3
32.5°	1309.8	1309.8	1301.3	1297.9	1303.0
35°	1265.7	1265.7	1255.6	1259.0	1252.2
37.5°	1218.3	1221.7	1204.7	1209.8	1208.1
40°	1167.5	1164.1	1155.6	1165.8	1157.3
42.5°	1113.2	1118.3	1106.5	1106.5	1099.7
45°	1057.3	1057.3	1050.5	1048.8	1050.5
47.5°	998.0	999.7	994.6	996.3	992.9
50°	940.4	938.7	931.9	930.2	933.6
52.5°	876.0	877.7	869.2	870.9	869.2
55°	809.9	813.3	803.2	803.2	801.5
57.5°	740.5	740.5	735.4	735.4	732.0
60°	669.3	674.4	665.9	665.9	664.2
62.5°	596.4	596.4	593.0	594.7	591.4
65°	527.0	523.6	520.2	518.5	518.5
67.5°	450.7	447.3	450.7	445.6	447.3
70°	371.1	372.8	371.1	371.1	369.4
72.5°	299.9	299.9	301.6	299.9	299.9
75°	230.4	225.4	228.7	232.1	228.7
77.5°	162.7	162.7	166.1	166.1	167.7
80°	110.1	106.7	106.7	110.1	111.8
82.5°	61.0	62.7	62.7	62.7	62.7
85°	28.8	30.5	28.8	28.8	28.8
87.5°	13.6	13.6	11.9	10.2	8.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)