

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: P302576

Luminaire Tested: **FSP-22-42-40-CP250**

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: P302576
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1905-304-12)
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-CP250
Description: 2x2 Fail Safe Flat Panel Clear Polycarbonate Lens .25"
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

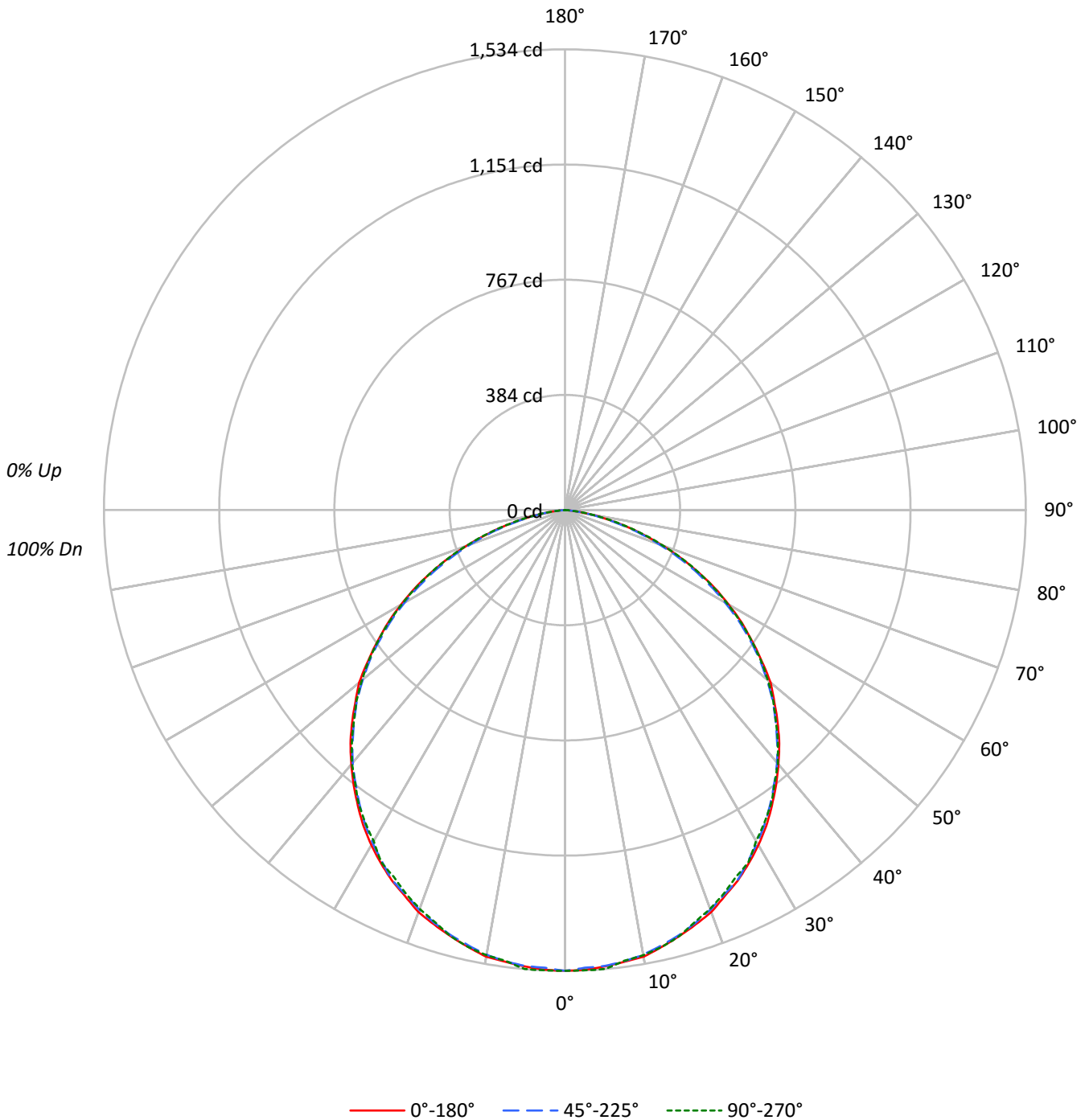
Lumens per Lamp: N/A
Luminaire Lumens: 4110.2 lumens
Efficiency: N/A
Efficacy: 107.3 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.24 / 1.35
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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	96	98	95	93	95	92	90	91	89	87	85
2	100	92	85	80	97	90	84	79	87	81	77	83	79	75	80	77	74	72
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	61
4	84	72	63	57	81	71	62	56	68	61	56	66	60	55	64	58	54	52
5	77	64	55	49	75	63	55	49	61	54	48	59	53	48	57	52	47	45
6	71	58	49	43	69	57	49	43	55	48	42	53	47	42	52	46	41	39
7	66	52	44	38	64	52	43	38	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	34	46	39	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	52	40	33	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4127	4127	4127
5°	4120	4116	4143
10°	4126	4107	4112
15°	4092	4083	4092
20°	4080	4055	4046
25°	4043	4037	4002
30°	4002	3976	3955
35°	3946	3918	3929
40°	3884	3860	3872
45°	3811	3773	3779
50°	3743	3671	3693
55°	3570	3522	3562
60°	3388	3315	3370
65°	3118	3042	3129
70°	2738	2644	2752
75°	2218	2093	2253
80°	1506	1427	1561
85°	685	633	685



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.0	3.5
10°-20°	414.0	10.1
20°-30°	624.5	15.2
30°-40°	748.1	18.2
40°-50°	767.9	18.7
50°-60°	675.1	16.4
60°-70°	477.3	11.6
70°-80°	223.3	5.4
80°-90°	34.9	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°	1183.5	28.8
0°-40°	1931.6	47.0
0°-60°	3374.6	82.1
0°-90°	4110.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4110.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1534	1534	1534	1534	1534	
5°	1525	1527	1524	1525	1534	145
15°	1469	1469	1466	1464	1469	415
25°	1362	1358	1360	1351	1348	627
35°	1201	1201	1193	1193	1196	752
45°	1002	998	991	993	993	773
55°	761	756	751	758	759	681
65°	490	483	478	484	491	485
75°	213	205	201	212	217	228
85°	22	22	20	24	22	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1533.8	1533.8	1533.8	1533.8	1533.8
2.5°	1532.1	1530.4	1525.3	1530.4	1533.8
5°	1525.3	1527.0	1523.6	1525.3	1533.8
7.5°	1516.7	1518.4	1515.0	1515.0	1513.3
10°	1509.9	1509.9	1503.1	1503.1	1504.8
12.5°	1489.4	1492.9	1484.3	1487.7	1489.4
15°	1469.0	1469.0	1465.6	1463.9	1469.0
17.5°	1446.8	1446.8	1441.7	1441.7	1438.3
20°	1424.6	1421.2	1416.1	1411.0	1412.7
22.5°	1390.5	1392.2	1385.4	1385.4	1382.0
25°	1361.5	1358.1	1359.8	1351.2	1347.8
27.5°	1325.7	1324.0	1318.8	1318.8	1322.2
30°	1288.1	1283.0	1279.6	1276.2	1272.8
32.5°	1247.2	1243.8	1238.6	1236.9	1235.2
35°	1201.1	1201.1	1192.6	1192.6	1196.0
37.5°	1155.0	1158.5	1144.8	1146.5	1146.5
40°	1105.6	1107.3	1098.7	1100.4	1102.2
42.5°	1056.1	1052.7	1045.9	1051.0	1049.3
45°	1001.5	998.1	991.3	993.0	993.0
47.5°	945.2	941.8	938.4	938.4	940.1
50°	894.0	883.8	876.9	878.7	882.1
52.5°	825.8	824.1	817.2	818.9	822.4
55°	760.9	755.8	750.7	757.5	759.2
57.5°	697.8	692.7	685.9	689.3	694.4
60°	629.6	621.0	615.9	621.0	626.1
62.5°	563.0	551.1	546.0	552.8	557.9
65°	489.7	482.8	477.7	484.5	491.4
67.5°	419.7	407.8	406.1	416.3	421.4
70°	348.0	336.1	336.1	344.6	349.8
72.5°	278.1	266.2	267.9	278.1	283.2
75°	213.3	204.7	201.3	211.6	216.7
77.5°	151.8	143.3	143.3	153.6	153.6
80°	97.2	92.1	92.1	99.0	100.7
82.5°	54.6	52.9	51.2	54.6	56.3
85°	22.2	22.2	20.5	23.9	22.2
87.5°	5.1	5.1	5.1	5.1	5.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)