

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: P302582

Luminaire Tested: **FSP-22-42-50-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: P302582
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-22-42-50-CP250
Description: 2x2 Fail Safe Flat Panel Clear Polycarbonate Lens .25"
Light Source: (210) 5000 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

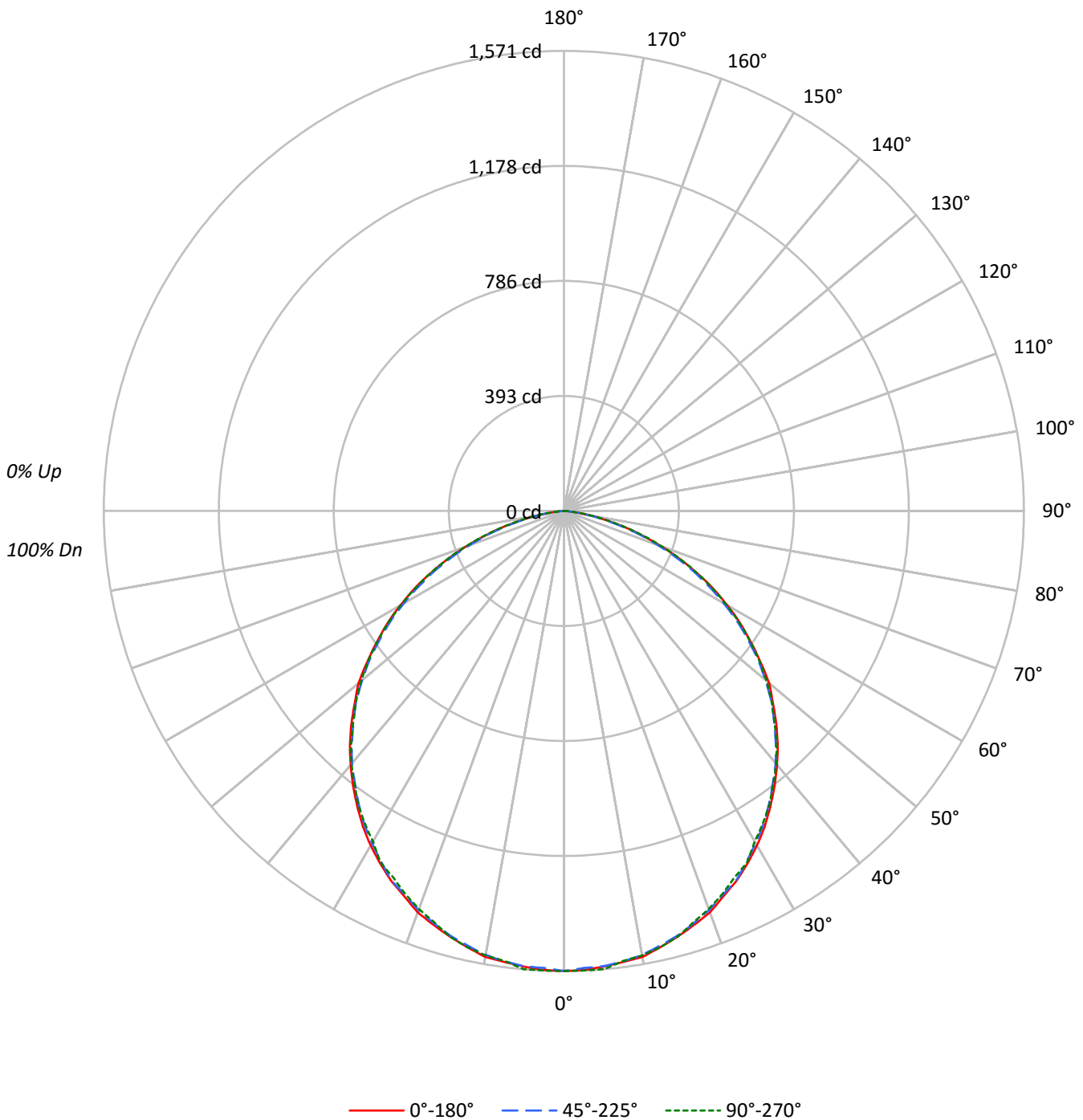
Lumens per Lamp: N/A
Luminaire Lumens: 4208.6 lumens
Efficiency: N/A
Efficacy: 109.9 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.24 / 1.35
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	4226	4226	4226
5°	4219	4214	4243
10°	4225	4206	4210
15°	4191	4181	4191
20°	4178	4152	4142
25°	4139	4134	4098
30°	4098	4071	4050
35°	4040	4012	4023
40°	3977	3952	3965
45°	3903	3863	3870
50°	3832	3759	3781
55°	3656	3606	3647
60°	3469	3394	3451
65°	3193	3115	3203
70°	2804	2708	2817
75°	2271	2143	2307
80°	1543	1461	1598
85°	701	648	701



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.4	3.5
10°-20°	423.9	10.1
20°-30°	639.5	15.2
30°-40°	766.1	18.2
40°-50°	786.2	18.7
50°-60°	691.2	16.4
60°-70°	488.8	11.6
70°-80°	228.7	5.4
80°-90°	35.8	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°	1211.8	28.8
0°-40°	1977.9	47.0
0°-60°	3455.4	82.1
0°-90°	4208.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4208.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1571	1571	1571	1571	1571	
5°	1562	1564	1560	1562	1571	149
15°	1504	1504	1501	1499	1504	425
25°	1394	1391	1392	1384	1380	642
35°	1230	1230	1221	1221	1225	770
45°	1026	1022	1015	1017	1017	791
55°	779	774	769	776	777	697
65°	501	494	489	496	503	497
75°	218	210	206	217	222	234
85°	23	23	21	24	23	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1570.6	1570.6	1570.6	1570.6	1570.6
2.5°	1568.8	1567.1	1561.8	1567.1	1570.6
5°	1561.8	1563.6	1560.1	1561.8	1570.6
7.5°	1553.1	1554.8	1551.3	1551.3	1549.6
10°	1546.1	1546.1	1539.1	1539.1	1540.9
12.5°	1525.1	1528.6	1519.9	1523.4	1525.1
15°	1504.2	1504.2	1500.7	1498.9	1504.2
17.5°	1481.5	1481.5	1476.2	1476.2	1472.7
20°	1458.8	1455.3	1450.0	1444.8	1446.5
22.5°	1423.8	1425.6	1418.6	1418.6	1415.1
25°	1394.1	1390.6	1392.4	1383.6	1380.1
27.5°	1357.4	1355.7	1350.4	1350.4	1353.9
30°	1319.0	1313.8	1310.3	1306.8	1303.3
32.5°	1277.1	1273.6	1268.3	1266.6	1264.8
35°	1229.9	1229.9	1221.2	1221.2	1224.7
37.5°	1182.7	1186.2	1172.2	1174.0	1174.0
40°	1132.1	1133.8	1125.1	1126.8	1128.6
42.5°	1081.4	1077.9	1070.9	1076.2	1074.4
45°	1025.5	1022.0	1015.0	1016.8	1016.8
47.5°	967.8	964.3	960.9	960.9	962.6
50°	915.4	905.0	898.0	899.7	903.2
52.5°	845.6	843.8	836.8	838.6	842.1
55°	779.2	773.9	768.7	775.7	777.4
57.5°	714.5	709.3	702.3	705.8	711.0
60°	644.6	635.9	630.7	635.9	641.2
62.5°	576.5	564.3	559.0	566.0	571.3
65°	501.4	494.4	489.2	496.2	503.1
67.5°	429.8	417.5	415.8	426.3	431.5
70°	356.4	344.2	344.2	352.9	358.1
72.5°	284.8	272.5	274.3	284.8	290.0
75°	218.4	209.6	206.1	216.6	221.9
77.5°	155.5	146.7	146.7	157.2	157.2
80°	99.6	94.3	94.3	101.3	103.1
82.5°	55.9	54.2	52.4	55.9	57.7
85°	22.7	22.7	21.0	24.5	22.7
87.5°	5.2	5.2	5.2	5.2	5.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)