

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: P302581

Luminaire Tested: **FSP-22-42-50-CP187**

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: P302581
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1905-304-11)
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-CP187
Description: 2x2 Fail Safe Flat Panel Clear Polycarbonate Lens .187"
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

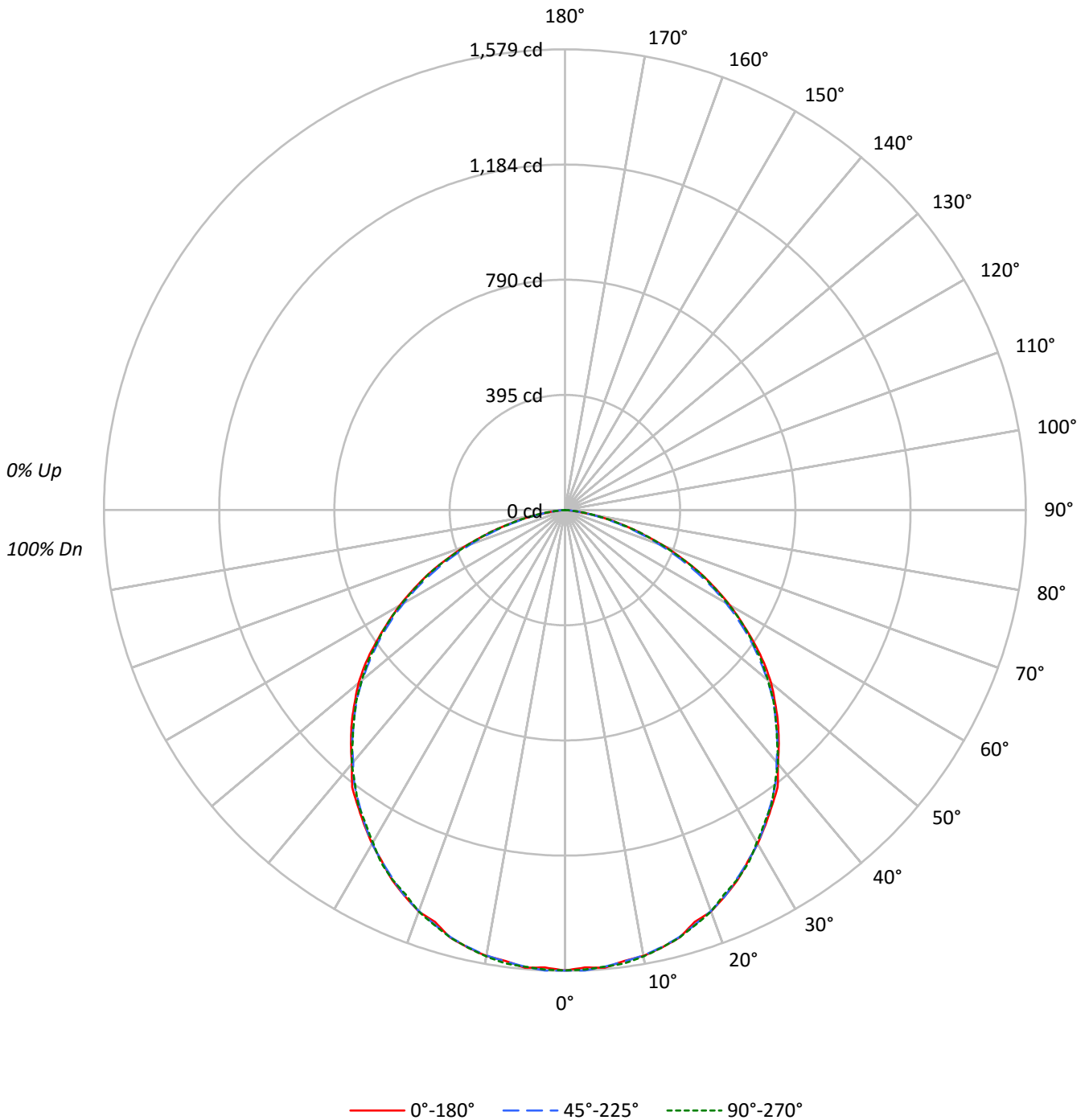
Lumens per Lamp: N/A
Luminaire Lumens: 4243.5 lumens
Efficiency: N/A
Efficacy: 110.8 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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	96	98	95	93	95	92	90	91	89	87	85
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	77	74	71
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	70	62	56	68	61	55	66	60	55	63	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	42	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	27	52	40	33	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4245	4245	4245
5°	4252	4243	4243
10°	4239	4234	4244
15°	4225	4220	4225
20°	4192	4188	4192
25°	4155	4140	4150
30°	4104	4104	4088
35°	4063	4040	4052
40°	3989	3965	3989
45°	3929	3889	3889
50°	3862	3796	3803
55°	3705	3639	3672
60°	3517	3432	3489
65°	3259	3126	3259
70°	2859	2722	2845
75°	2344	2179	2288
80°	1598	1516	1624
85°	701	756	756



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.4	3.5
10°-20°	427.3	10.1
20°-30°	643.4	15.2
30°-40°	770.8	18.2
40°-50°	791.3	18.6
50°-60°	697.0	16.4
60°-70°	494.5	11.7
70°-80°	233.0	5.5
80°-90°	36.8	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°	1220.1	28.8
0°-40°	1990.8	46.9
0°-60°	3479.2	82.0
0°-90°	4243.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4243.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1578	1578	1578	1578	1578	
5°	1574	1578	1571	1571	1571	149
15°	1516	1513	1515	1515	1516	427
25°	1399	1399	1394	1398	1398	644
35°	1237	1233	1230	1230	1233	774
45°	1032	1029	1022	1027	1022	796
55°	790	783	776	781	783	706
65°	512	498	491	503	512	504
75°	225	215	210	220	220	239
85°	23	23	24	24	24	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1577.6	1577.6	1577.6	1577.6	1577.6
2.5°	1568.9	1581.1	1579.3	1575.8	1575.8
5°	1574.1	1577.6	1570.6	1570.6	1570.6
7.5°	1558.4	1565.4	1560.1	1560.1	1567.1
10°	1551.4	1554.9	1549.6	1549.6	1553.1
12.5°	1535.7	1537.4	1533.9	1533.9	1535.7
15°	1516.4	1513.0	1514.7	1514.7	1516.4
17.5°	1479.8	1493.7	1488.5	1493.7	1490.2
20°	1464.0	1465.8	1462.3	1460.5	1464.0
22.5°	1432.6	1427.3	1432.6	1429.1	1425.6
25°	1399.4	1399.4	1394.2	1397.6	1397.6
27.5°	1357.5	1359.2	1357.5	1357.5	1362.7
30°	1320.8	1320.8	1320.8	1319.0	1315.5
32.5°	1278.8	1278.8	1275.4	1277.1	1271.9
35°	1236.9	1233.4	1229.9	1229.9	1233.4
37.5°	1196.7	1189.7	1184.5	1184.5	1181.0
40°	1135.6	1139.1	1128.6	1130.3	1135.6
42.5°	1084.9	1084.9	1077.9	1083.2	1076.2
45°	1032.5	1029.0	1022.0	1027.3	1022.0
47.5°	976.6	971.4	967.9	966.1	969.6
50°	922.4	910.2	906.7	908.5	908.5
52.5°	859.6	847.3	840.3	845.6	849.1
55°	789.7	782.7	775.7	780.9	782.7
57.5°	719.8	712.8	707.6	711.1	718.0
60°	653.4	642.9	637.7	644.7	648.2
62.5°	581.8	571.3	566.0	576.5	574.8
65°	511.9	497.9	490.9	503.2	511.9
67.5°	435.0	426.3	417.5	429.8	431.5
70°	363.4	349.4	345.9	361.6	361.6
72.5°	288.3	283.0	276.0	288.3	291.8
75°	225.4	214.9	209.6	220.1	220.1
77.5°	159.0	153.7	150.2	159.0	162.5
80°	103.1	97.8	97.8	101.3	104.8
82.5°	55.9	55.9	54.2	57.7	59.4
85°	22.7	22.7	24.5	24.5	24.5
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)