

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: P302510

Luminaire Tested: **FSP-14-42-40-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: P302510
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1905-304-6)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FSP-14-42-40-CP250
Description: 1x4 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

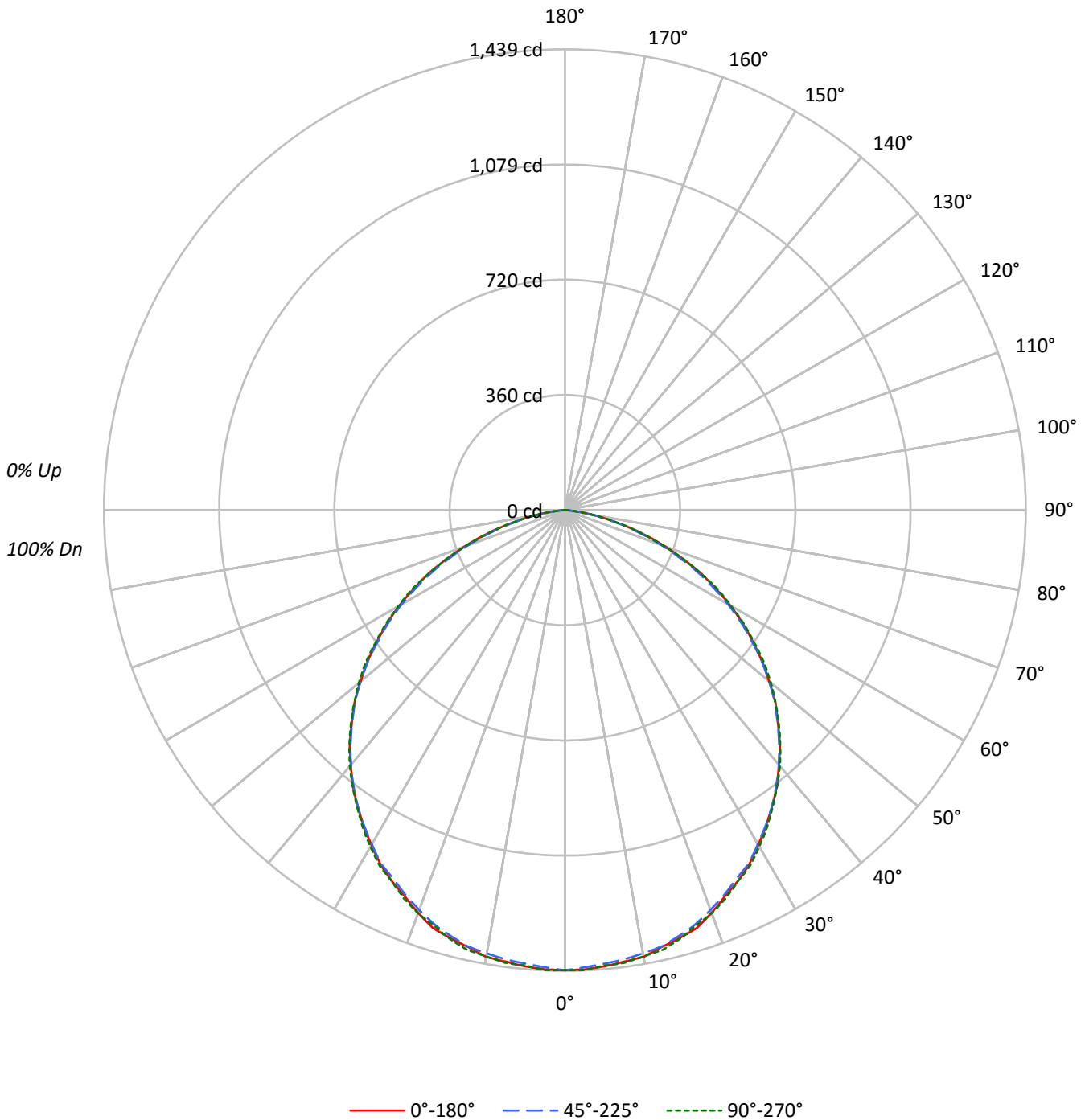
Lumens per Lamp: N/A
Luminaire Lumens: 3890.1 lumens
Efficiency: N/A
Efficacy: 101.6 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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	66	63	60
4	83	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	48	61	54	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39
7	66	52	44	38	64	52	43	37	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	35	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°	3867	3867	3867
5°	3864	3842	3857
10°	3871	3841	3868
15°	3855	3836	3863
20°	3834	3806	3838
25°	3796	3768	3796
30°	3752	3744	3773
35°	3706	3706	3715
40°	3651	3651	3670
45°	3580	3575	3596
50°	3486	3486	3515
55°	3362	3336	3387
60°	3209	3165	3224
65°	2987	2900	2978
70°	2626	2539	2603
75°	2119	2034	2119
80°	1463	1420	1463
85°	633	633	633



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.8	3.5
10°-20°	389.5	10.0
20°-30°	588.0	15.1
30°-40°	706.0	18.1
40°-50°	726.0	18.7
50°-60°	640.5	16.5
60°-70°	455.9	11.7
70°-80°	215.2	5.5
80°-90°	33.1	0.8
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°	1113.3	28.6
0°-40°	1819.3	46.8
0°-60°	3185.9	81.9
0°-90°	3890.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3890.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1437	1437	1437	1437	1437	
5°	1430	1429	1422	1433	1428	136
15°	1384	1378	1377	1382	1387	391
25°	1279	1270	1269	1277	1279	589
35°	1128	1123	1128	1134	1131	706
45°	941	938	940	946	945	726
55°	717	718	711	719	722	641
65°	469	462	455	462	468	461
75°	204	202	196	200	204	220
85°	20	22	20	20	20	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1437.2	1437.2	1437.2	1437.2	1437.2
2.5°	1435.9	1433.1	1429.0	1434.5	1438.6
5°	1430.4	1429.0	1422.2	1433.1	1427.7
7.5°	1422.2	1424.9	1415.4	1422.2	1426.3
10°	1416.7	1408.5	1405.8	1411.3	1415.4
12.5°	1397.6	1397.6	1396.2	1397.6	1407.2
15°	1383.9	1378.4	1377.1	1382.5	1386.6
17.5°	1368.9	1357.9	1356.6	1360.7	1360.7
20°	1338.8	1329.2	1329.2	1336.0	1340.1
22.5°	1306.0	1304.6	1300.5	1312.8	1312.8
25°	1278.6	1270.4	1269.0	1277.2	1278.6
27.5°	1247.2	1240.3	1244.4	1244.4	1252.6
30°	1207.5	1204.8	1204.8	1211.6	1214.3
32.5°	1169.2	1166.5	1167.8	1171.9	1174.7
35°	1128.2	1122.7	1128.2	1133.7	1130.9
37.5°	1087.2	1084.4	1084.4	1088.5	1088.5
40°	1039.3	1035.2	1039.3	1046.1	1044.8
42.5°	994.2	988.7	990.1	996.9	995.5
45°	940.8	938.1	939.5	946.3	944.9
47.5°	891.6	887.5	888.9	888.9	891.6
50°	832.8	832.8	832.8	836.9	839.6
52.5°	776.7	775.4	774.0	780.8	784.9
55°	716.6	717.9	711.1	719.3	722.0
57.5°	657.8	657.8	652.3	656.4	663.2
60°	596.2	592.1	588.0	593.5	599.0
62.5°	530.6	527.9	521.0	525.1	540.2
65°	469.1	462.2	455.4	462.2	467.7
67.5°	400.7	395.2	387.0	393.8	400.7
70°	333.7	329.6	322.7	326.8	330.9
72.5°	269.4	262.6	257.1	262.6	265.3
75°	203.8	202.4	195.6	199.7	203.8
77.5°	146.3	143.6	139.5	146.3	146.3
80°	94.4	94.4	91.6	93.0	94.4
82.5°	53.3	50.6	49.2	52.0	50.6
85°	20.5	21.9	20.5	20.5	20.5
87.5°	4.1	2.7	4.1	2.7	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)