

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: P302588

Luminaire Tested: **FSP-24-31-30-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: P302588
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1905-304-18)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FSP-24-31-30-CP250
Description: 2x4 Fail Safe Flat Panel Clear Polycarbonate Lens .25"
Light Source: (266) 3000 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

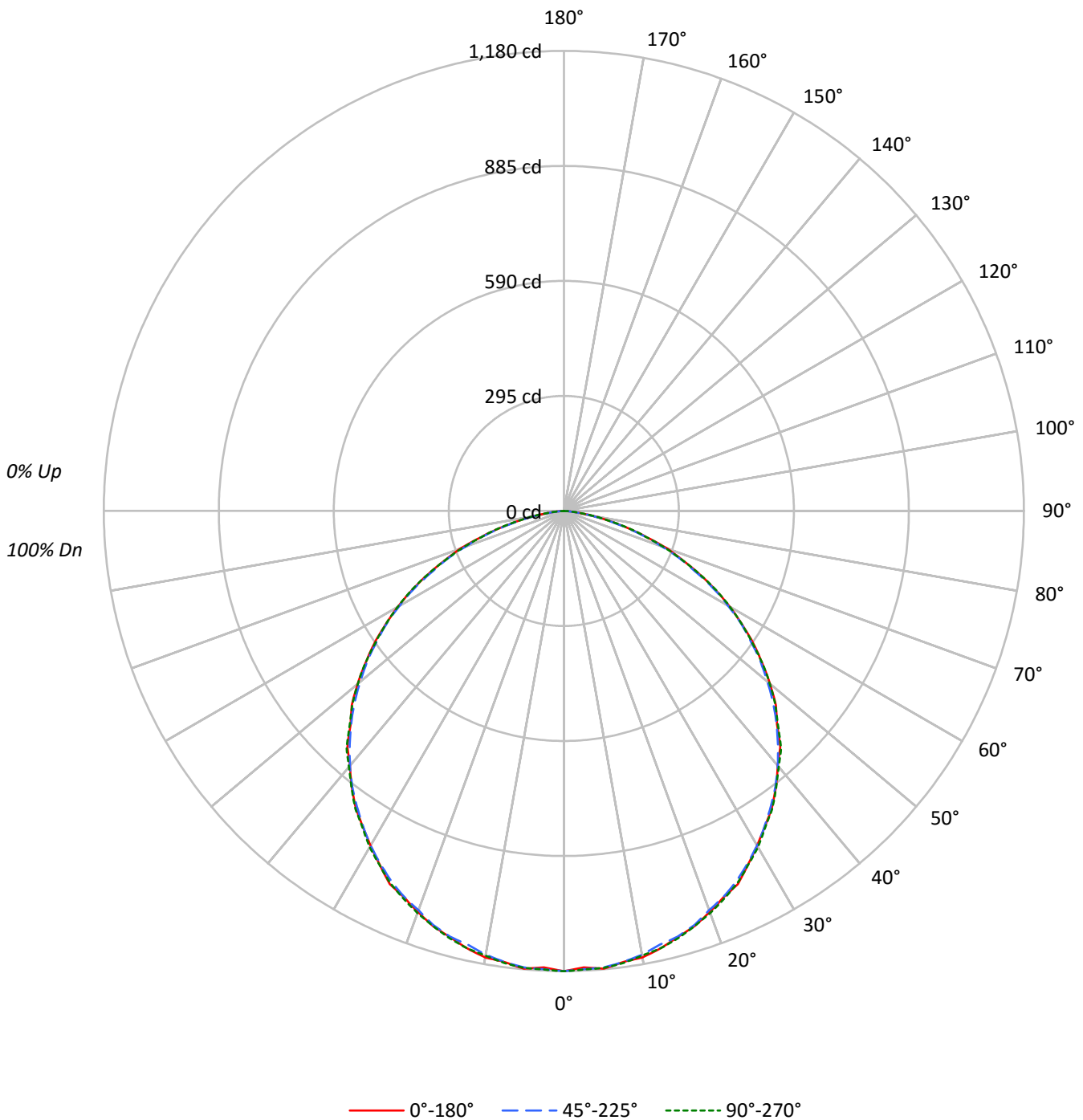
Lumens per Lamp: N/A
Luminaire Lumens: 3197.0 lumens
Efficiency: N/A
Efficacy: 111.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 28.6
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°	1588	1588	1588
5°	1592	1588	1589
10°	1588	1579	1582
15°	1576	1574	1580
20°	1567	1560	1572
25°	1568	1555	1564
30°	1540	1540	1548
35°	1528	1520	1531
40°	1499	1499	1506
45°	1472	1468	1477
50°	1446	1427	1444
55°	1394	1377	1384
60°	1323	1310	1323
65°	1226	1202	1223
70°	1113	1058	1085
75°	891	855	907
80°	626	588	634
85°	304	273	304



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.7	3.5
10°-20°	319.3	10.0
20°-30°	483.4	15.1
30°-40°	580.0	18.1
40°-50°	597.1	18.7
50°-60°	525.9	16.4
60°-70°	374.0	11.7
70°-80°	177.4	5.5
80°-90°	28.3	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°	914.4	28.6
0°-40°	1494.4	46.7
0°-60°	2617.4	81.9
0°-90°	3197.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3197.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1180	1180	1180	1180	1180	
5°	1178	1176	1175	1178	1176	112
15°	1131	1132	1130	1131	1134	320
25°	1056	1052	1047	1049	1053	484
35°	930	929	925	928	932	580
45°	773	774	772	774	776	599
55°	594	586	587	590	590	530
65°	385	368	377	379	384	381
75°	171	157	164	168	174	183
85°	20	17	18	19	20	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1180.4	1180.4	1180.4	1180.4	1180.4
2.5°	1171.5	1181.3	1176.4	1177.4	1177.4
5°	1178.4	1176.4	1175.4	1178.4	1176.4
7.5°	1166.6	1171.5	1166.6	1169.5	1169.5
10°	1162.6	1159.7	1155.7	1154.7	1157.7
12.5°	1148.8	1146.9	1139.0	1147.9	1148.8
15°	1131.1	1132.1	1130.1	1131.1	1134.1
17.5°	1116.3	1116.3	1113.4	1115.3	1116.3
20°	1094.6	1099.6	1089.7	1094.6	1097.6
22.5°	1072.0	1074.0	1071.0	1072.0	1075.9
25°	1056.2	1052.3	1047.4	1049.3	1053.3
27.5°	1022.7	1024.7	1019.8	1020.7	1023.7
30°	991.2	990.2	991.2	991.2	996.1
32.5°	959.7	959.7	958.7	958.7	961.6
35°	930.1	929.1	925.2	928.1	932.1
37.5°	893.6	892.7	891.7	892.7	894.6
40°	853.3	856.2	853.3	854.2	857.2
42.5°	821.7	817.8	812.9	818.8	824.7
45°	773.4	774.4	771.5	774.4	776.4
47.5°	738.0	728.1	728.1	732.1	736.0
50°	690.7	683.8	681.8	686.7	689.7
52.5°	641.4	635.5	636.5	638.5	642.4
55°	594.1	586.2	587.2	590.2	590.2
57.5°	542.9	533.0	539.9	540.9	541.9
60°	491.7	479.8	486.7	487.7	491.7
62.5°	438.4	423.7	434.5	435.5	441.4
65°	385.2	367.5	377.4	379.3	384.3
67.5°	330.1	315.3	326.1	323.2	329.1
70°	282.8	261.1	269.0	271.0	275.9
72.5°	221.7	206.9	218.7	217.7	221.7
75°	171.4	156.7	164.5	167.5	174.4
77.5°	121.2	111.3	118.2	121.2	123.2
80°	80.8	72.9	75.9	78.8	81.8
82.5°	46.3	40.4	43.4	43.4	44.3
85°	19.7	16.7	17.7	18.7	19.7
87.5°	4.9	3.9	3.9	3.9	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)