

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: P302600

Luminaire Tested: **FSP-24-31-40-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: P302600
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-24-31-40-CP250
Description: 2x4 Fail Safe Flat Panel Clear Polycarbonate Lens .25"
Light Source: (266) 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

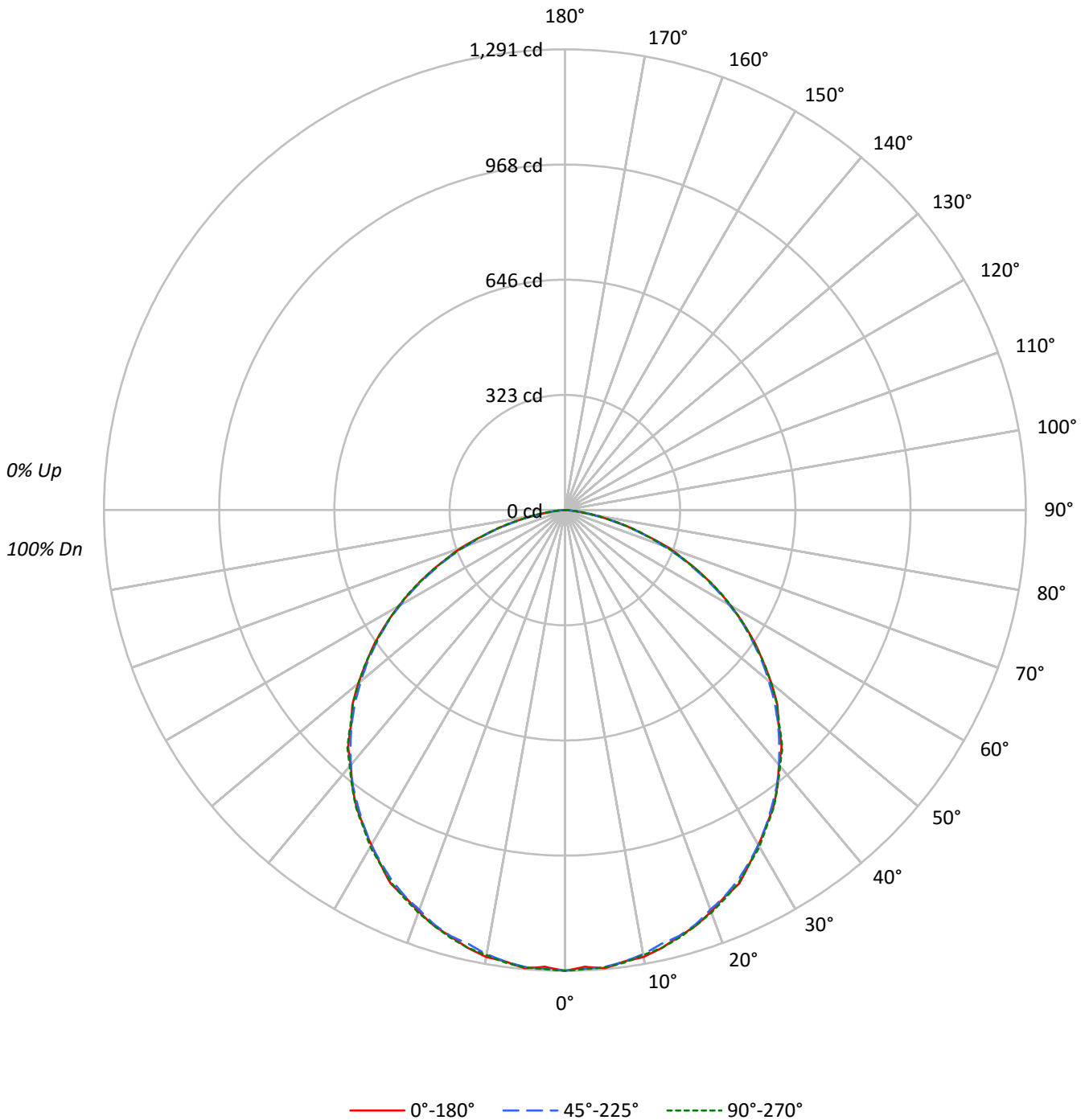
Lumens per Lamp: N/A
Luminaire Lumens: 3495.6 lumens
Efficiency: N/A
Efficacy: 118.9 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 29.4
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°	1736	1736	1736
5°	1740	1736	1737
10°	1737	1727	1730
15°	1723	1721	1727
20°	1714	1706	1718
25°	1715	1700	1710
30°	1684	1684	1692
35°	1670	1662	1674
40°	1639	1639	1646
45°	1609	1605	1615
50°	1581	1560	1578
55°	1524	1506	1514
60°	1447	1432	1447
65°	1341	1314	1338
70°	1216	1157	1187
75°	975	935	991
80°	684	643	693
85°	332	299	332



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.1	3.5
10°-20°	349.2	10.0
20°-30°	528.5	15.1
30°-40°	634.2	18.1
40°-50°	652.9	18.7
50°-60°	575.0	16.4
60°-70°	408.9	11.7
70°-80°	194.0	5.5
80°-90°	30.9	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°	999.8	28.6
0°-40°	1634.0	46.7
0°-60°	2861.9	81.9
0°-90°	3495.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3495.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1291	1291	1291	1291	1291	
5°	1288	1286	1285	1288	1286	122
15°	1237	1238	1236	1237	1240	350
25°	1155	1151	1145	1147	1152	529
35°	1017	1016	1012	1015	1019	635
45°	846	847	844	847	849	655
55°	650	641	642	645	645	579
65°	421	402	413	415	420	417
75°	188	171	180	183	191	200
85°	22	18	19	20	22	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1290.6	1290.6	1290.6	1290.6	1290.6
2.5°	1280.9	1291.7	1286.3	1287.4	1287.4
5°	1288.5	1286.3	1285.3	1288.5	1286.3
7.5°	1275.6	1280.9	1275.6	1278.8	1278.8
10°	1271.3	1268.0	1263.7	1262.6	1265.9
12.5°	1256.2	1254.0	1245.4	1255.1	1256.2
15°	1236.8	1237.9	1235.7	1236.8	1240.0
17.5°	1220.6	1220.6	1217.4	1219.5	1220.6
20°	1196.9	1202.3	1191.5	1196.9	1200.1
22.5°	1172.1	1174.3	1171.1	1172.1	1176.4
25°	1154.9	1150.6	1145.2	1147.4	1151.7
27.5°	1118.3	1120.4	1115.0	1116.1	1119.3
30°	1083.8	1082.7	1083.8	1083.8	1089.2
32.5°	1049.3	1049.3	1048.2	1048.2	1051.5
35°	1017.0	1015.9	1011.6	1014.8	1019.2
37.5°	977.1	976.1	975.0	976.1	978.2
40°	933.0	936.2	933.0	934.0	937.3
42.5°	898.5	894.2	888.8	895.3	901.7
45°	845.7	846.8	843.6	846.8	848.9
47.5°	806.9	796.1	796.1	800.5	804.8
50°	755.2	747.7	745.5	750.9	754.1
52.5°	701.3	694.9	696.0	698.1	702.4
55°	649.6	641.0	642.1	645.3	645.3
57.5°	593.6	582.8	590.4	591.5	592.5
60°	537.6	524.7	532.2	533.3	537.6
62.5°	479.4	463.3	475.1	476.2	482.6
65°	421.2	401.8	412.6	414.8	420.2
67.5°	360.9	344.7	356.6	353.4	359.8
70°	309.2	285.5	294.1	296.3	301.7
72.5°	242.4	226.2	239.2	238.1	242.4
75°	187.5	171.3	179.9	183.1	190.7
77.5°	132.5	121.7	129.3	132.5	134.7
80°	88.3	79.7	83.0	86.2	89.4
82.5°	50.6	44.2	47.4	47.4	48.5
85°	21.5	18.3	19.4	20.5	21.5
87.5°	5.4	4.3	4.3	4.3	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)