

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: P302587

Luminaire Tested: **FSP-24-31-30-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: P302587
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1905-304-17)
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-CP187
Description: 2x4 Fail Safe Flat Panel Clear Polycarbonate Lens .187"
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

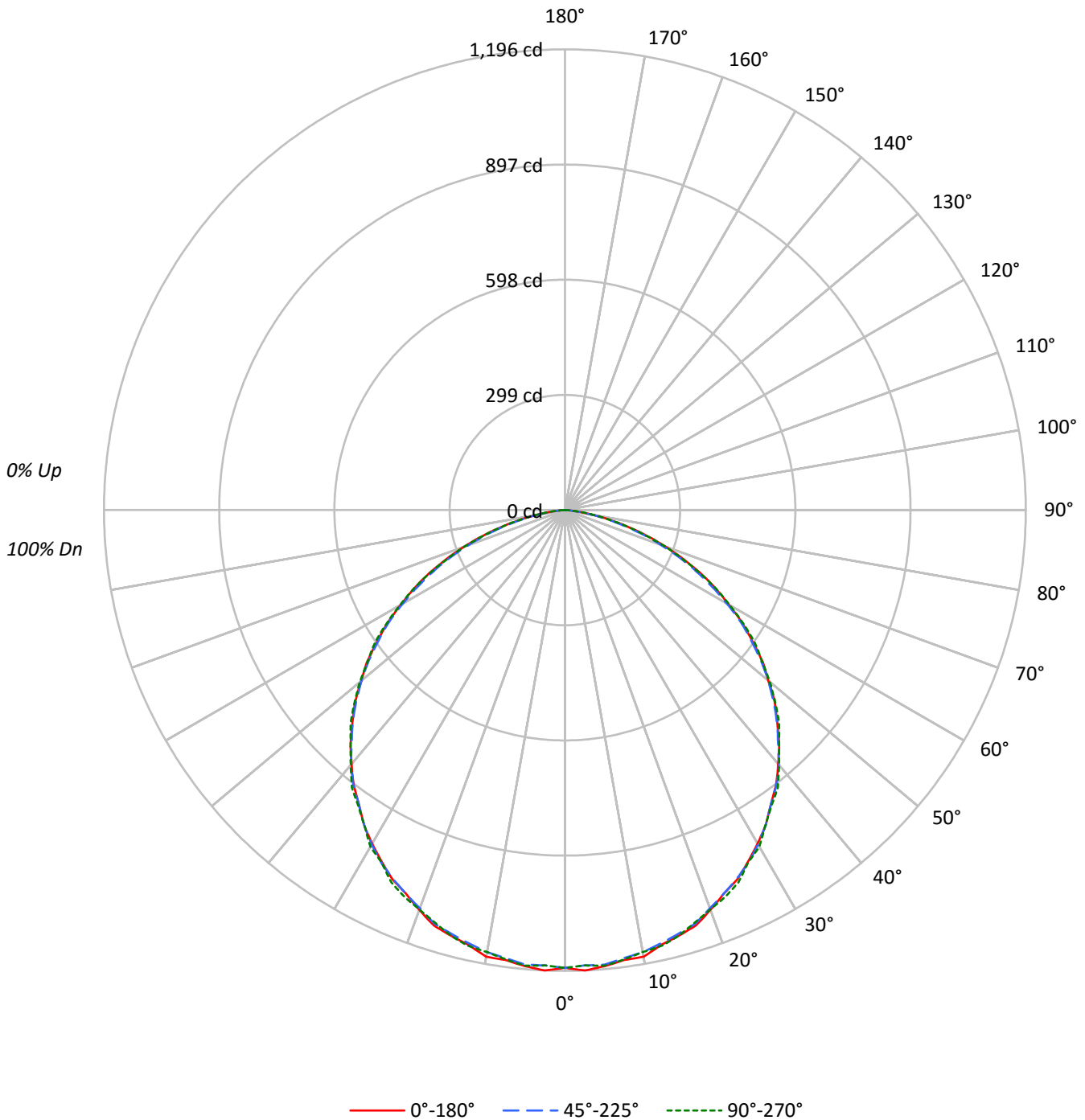
Lumens per Lamp: N/A
Luminaire Lumens: 3223.5 lumens
Efficiency: N/A
Efficacy: 112.7 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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	73	71
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	66	63	60
4	83	72	63	56	81	70	62	56	68	61	55	66	59	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	34	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°	1599	1599	1599
5°	1605	1599	1603
10°	1608	1592	1592
15°	1593	1586	1593
20°	1581	1575	1580
25°	1570	1567	1582
30°	1554	1557	1568
35°	1531	1531	1536
40°	1513	1516	1518
45°	1483	1481	1496
50°	1443	1443	1453
55°	1394	1384	1413
60°	1324	1305	1329
65°	1237	1199	1228
70°	1095	1047	1095
75°	900	842	889
80°	620	588	635
85°	296	281	296



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.4	3.5
10°-20°	322.0	10.0
20°-30°	487.0	15.1
30°-40°	585.0	18.1
40°-50°	601.0	18.6
50°-60°	530.2	16.4
60°-70°	377.4	11.7
70°-80°	179.5	5.6
80°-90°	28.9	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°	921.5	28.6
0°-40°	1506.5	46.7
0°-60°	2637.7	81.8
0°-90°	3223.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3223.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1188	1188	1188	1188	1188	
5°	1188	1187	1184	1181	1187	113
15°	1144	1141	1139	1143	1144	323
25°	1058	1056	1056	1058	1066	487
35°	932	933	932	941	935	584
45°	779	778	778	783	786	602
55°	594	595	590	594	602	531
65°	389	386	376	380	386	383
75°	173	169	162	165	171	185
85°	19	18	18	19	19	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1188.2	1188.2	1188.2	1188.2	1188.2
2.5°	1196.3	1187.2	1183.1	1181.1	1183.1
5°	1188.2	1187.2	1184.2	1181.1	1187.2
7.5°	1178.1	1176.1	1173.0	1171.0	1176.1
10°	1177.1	1169.0	1164.9	1165.9	1164.9
12.5°	1155.8	1156.8	1151.8	1153.8	1158.9
15°	1143.7	1140.6	1138.6	1142.7	1143.7
17.5°	1130.5	1129.5	1125.5	1119.4	1122.4
20°	1104.2	1103.2	1100.2	1105.2	1103.2
22.5°	1077.9	1084.0	1077.9	1085.0	1087.0
25°	1057.6	1055.6	1055.6	1057.6	1065.7
27.5°	1029.3	1026.3	1032.3	1027.3	1030.3
30°	1000.0	996.9	1002.0	1002.0	1009.1
32.5°	969.6	966.6	969.6	967.6	968.6
35°	932.1	933.2	932.1	941.3	935.2
37.5°	899.8	897.7	900.8	900.8	907.9
40°	861.3	861.3	863.3	861.3	864.3
42.5°	822.8	816.8	818.8	821.8	822.8
45°	779.3	778.3	778.3	783.4	786.4
47.5°	738.8	734.8	733.8	735.8	740.9
50°	689.2	689.2	689.2	692.3	694.3
52.5°	646.7	643.7	640.7	642.7	644.7
55°	594.1	595.1	590.1	594.1	602.2
57.5°	545.5	544.5	541.5	541.5	549.6
60°	491.9	491.9	484.8	489.9	493.9
62.5°	441.3	440.3	430.1	433.2	442.3
65°	388.6	385.6	376.5	379.5	385.6
67.5°	333.0	329.9	321.8	323.9	328.9
70°	278.3	276.3	266.2	269.2	278.3
72.5°	224.7	220.6	214.6	215.6	221.6
75°	173.1	169.0	161.9	165.0	171.0
77.5°	124.5	122.5	117.4	118.4	124.5
80°	80.0	78.9	75.9	77.9	82.0
82.5°	46.6	44.5	41.5	43.5	45.5
85°	19.2	18.2	18.2	19.2	19.2
87.5°	4.0	4.0	5.1	5.1	5.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)