

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: P302569

Luminaire Tested: **FSP-22-42-35-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: P302569
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-22-42-35-CP187
Description: 2x2 Fail Safe Flat Panel Clear Polycarbonate Lens .187"
Light Source: (238) 3500 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

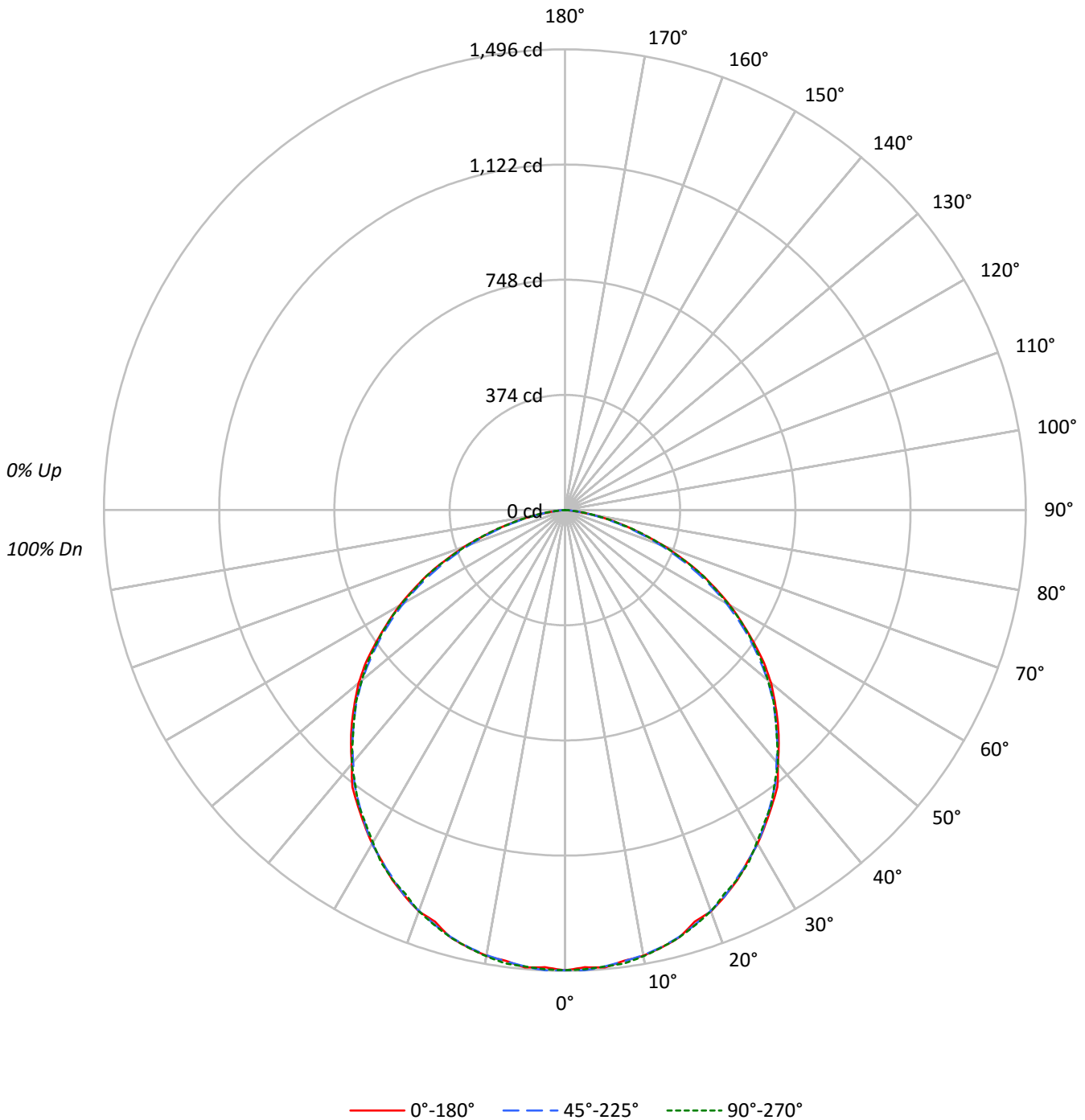
Lumens per Lamp: N/A
Luminaire Lumens: 4019.0 lumens
Efficiency: N/A
Efficacy: 103.6 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 38.8
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°	4021	4021	4021
5°	4027	4018	4018
10°	4015	4010	4019
15°	4001	3996	4001
20°	3970	3966	3970
25°	3935	3920	3930
30°	3887	3887	3871
35°	3848	3826	3837
40°	3778	3755	3778
45°	3722	3683	3683
50°	3657	3595	3602
55°	3509	3446	3478
60°	3330	3250	3304
65°	3087	2960	3087
70°	2708	2578	2695
75°	2219	2065	2168
80°	1512	1437	1539
85°	664	716	716



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.5	3.5
10°-20°	404.7	10.1
20°-30°	609.4	15.2
30°-40°	730.0	18.2
40°-50°	749.5	18.6
50°-60°	660.1	16.4
60°-70°	468.3	11.7
70°-80°	220.7	5.5
80°-90°	34.9	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°	1155.5	28.8
0°-40°	1885.5	46.9
0°-60°	3295.1	82.0
0°-90°	4019.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4019.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1494	1494	1494	1494	1494	
5°	1491	1494	1488	1488	1488	141
15°	1436	1433	1434	1434	1436	404
25°	1325	1325	1320	1324	1324	610
35°	1171	1168	1165	1165	1168	733
45°	978	975	968	973	968	754
55°	748	741	735	740	741	668
65°	485	472	465	476	485	477
75°	213	204	199	208	208	226
85°	22	22	23	23	23	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1494.1	1494.1	1494.1	1494.1	1494.1
2.5°	1485.8	1497.4	1495.7	1492.4	1492.4
5°	1490.8	1494.1	1487.5	1487.5	1487.5
7.5°	1475.9	1482.5	1477.5	1477.5	1484.2
10°	1469.3	1472.6	1467.6	1467.6	1470.9
12.5°	1454.4	1456.0	1452.7	1452.7	1454.4
15°	1436.2	1432.9	1434.5	1434.5	1436.2
17.5°	1401.4	1414.7	1409.7	1414.7	1411.4
20°	1386.5	1388.2	1384.9	1383.2	1386.5
22.5°	1356.8	1351.8	1356.8	1353.4	1350.1
25°	1325.3	1325.3	1320.4	1323.7	1323.7
27.5°	1285.6	1287.3	1285.6	1285.6	1290.6
30°	1250.9	1250.9	1250.9	1249.2	1245.9
32.5°	1211.2	1211.2	1207.8	1209.5	1204.5
35°	1171.4	1168.1	1164.8	1164.8	1168.1
37.5°	1133.4	1126.8	1121.8	1121.8	1118.5
40°	1075.5	1078.8	1068.9	1070.5	1075.5
42.5°	1027.5	1027.5	1020.9	1025.8	1019.2
45°	977.9	974.6	967.9	972.9	967.9
47.5°	924.9	919.9	916.6	915.0	918.3
50°	873.6	862.0	858.7	860.4	860.4
52.5°	814.1	802.5	795.9	800.8	804.1
55°	747.9	741.3	734.6	739.6	741.3
57.5°	681.7	675.1	670.1	673.4	680.0
60°	618.8	608.9	603.9	610.5	613.9
62.5°	551.0	541.0	536.1	546.0	544.4
65°	484.8	471.6	464.9	476.5	484.8
67.5°	412.0	403.7	395.4	407.0	408.7
70°	344.2	330.9	327.6	342.5	342.5
72.5°	273.0	268.0	261.4	273.0	276.3
75°	213.4	203.5	198.6	208.5	208.5
77.5°	150.6	145.6	142.3	150.6	153.9
80°	97.6	92.7	92.7	96.0	99.3
82.5°	52.9	52.9	51.3	54.6	56.3
85°	21.5	21.5	23.2	23.2	23.2
87.5°	5.0	5.0	5.0	5.0	5.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)