

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: P302611

Luminaire Tested: **FSP-24-38HE-40-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: P302611
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-24-38HE-40-CP187
Description: 2x4 Fail Safe Flat Panel Clear Polycarbonate Lens .187"
Light Source: (224) 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

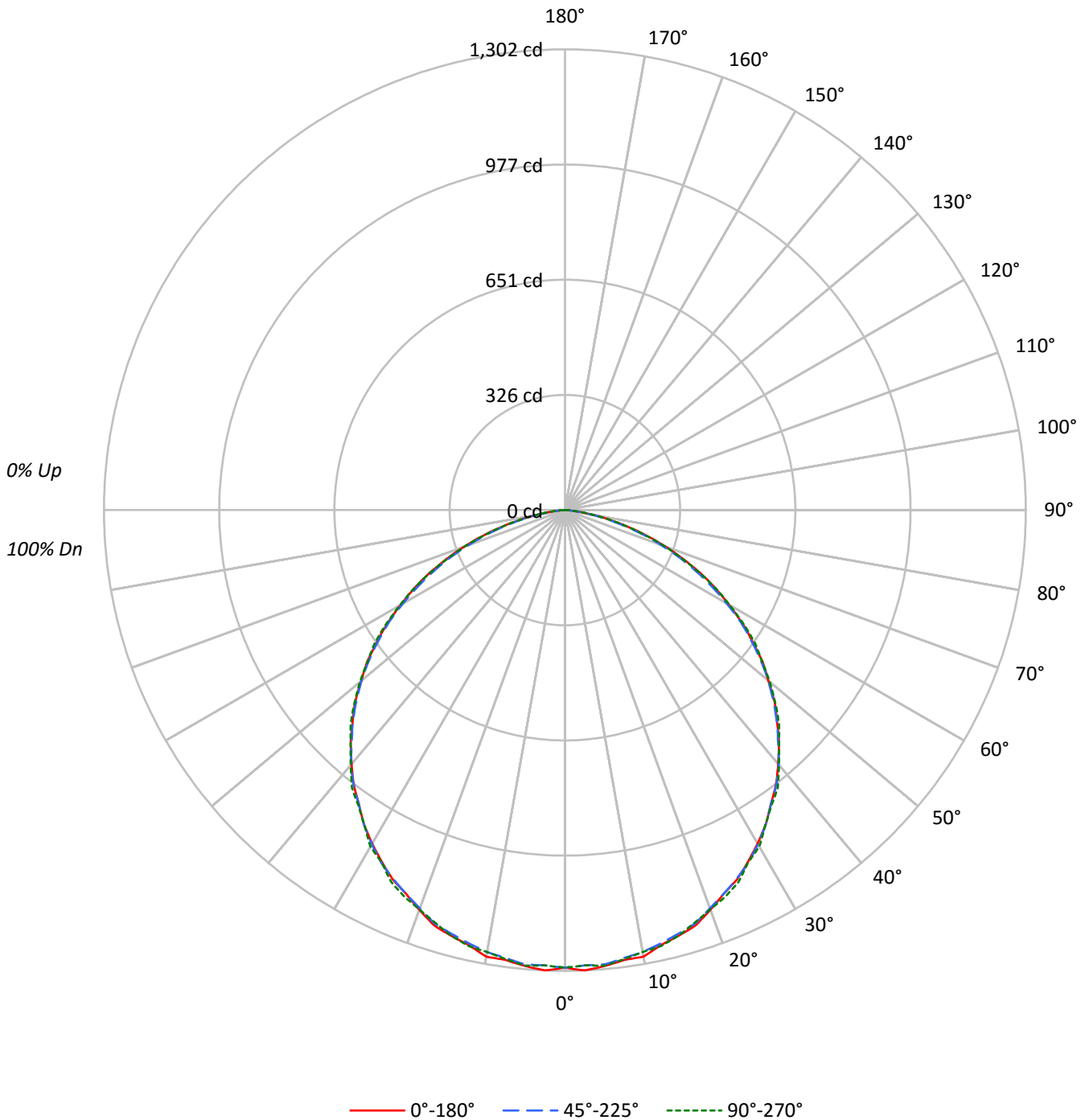
Lumens per Lamp: N/A
Luminaire Lumens: 3508.4 lumens
Efficiency: N/A
Efficacy: 121.4 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 28.9
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°	1740	1740	1740
5°	1747	1741	1745
10°	1750	1732	1732
15°	1734	1726	1734
20°	1721	1714	1719
25°	1709	1706	1722
30°	1691	1694	1706
35°	1666	1666	1672
40°	1646	1650	1652
45°	1614	1612	1629
50°	1570	1570	1582
55°	1517	1506	1537
60°	1441	1420	1447
65°	1347	1305	1336
70°	1192	1140	1192
75°	979	917	968
80°	674	640	691
85°	323	306	323



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.3	3.5
10°-20°	350.5	10.0
20°-30°	530.1	15.1
30°-40°	636.7	18.1
40°-50°	654.1	18.6
50°-60°	577.1	16.4
60°-70°	410.8	11.7
70°-80°	195.4	5.6
80°-90°	31.5	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°	1002.9	28.6
0°-40°	1639.6	46.7
0°-60°	2870.8	81.8
0°-90°	3508.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3508.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1293	1293	1293	1293	1293	
5°	1293	1292	1289	1286	1292	123
15°	1245	1242	1239	1244	1245	352
25°	1151	1149	1149	1151	1160	530
35°	1014	1016	1014	1024	1018	636
45°	848	847	847	853	856	655
55°	647	648	642	647	655	578
65°	423	420	410	413	420	417
75°	188	184	176	180	186	201
85°	21	20	20	21	21	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1293.2	1293.2	1293.2	1293.2	1293.2
2.5°	1302.0	1292.1	1287.7	1285.5	1287.7
5°	1293.2	1292.1	1288.8	1285.5	1292.1
7.5°	1282.2	1280.0	1276.7	1274.5	1280.0
10°	1281.1	1272.3	1267.9	1269.0	1267.9
12.5°	1258.0	1259.1	1253.6	1255.8	1261.3
15°	1244.8	1241.5	1239.3	1243.7	1244.8
17.5°	1230.4	1229.3	1224.9	1218.3	1221.6
20°	1201.8	1200.7	1197.4	1202.9	1200.7
22.5°	1173.2	1179.8	1173.2	1180.9	1183.1
25°	1151.1	1148.9	1148.9	1151.1	1159.9
27.5°	1120.3	1117.0	1123.6	1118.1	1121.4
30°	1088.3	1085.0	1090.5	1090.5	1098.3
32.5°	1055.3	1052.0	1055.3	1053.1	1054.2
35°	1014.5	1015.6	1014.5	1024.5	1017.8
37.5°	979.3	977.1	980.4	980.4	988.1
40°	937.4	937.4	939.6	937.4	940.7
42.5°	895.6	889.0	891.2	894.5	895.6
45°	848.2	847.1	847.1	852.6	855.9
47.5°	804.1	799.7	798.6	800.8	806.3
50°	750.2	750.2	750.2	753.5	755.7
52.5°	703.9	700.6	697.3	699.5	701.7
55°	646.6	647.7	642.2	646.6	655.4
57.5°	593.7	592.6	589.3	589.3	598.1
60°	535.4	535.4	527.6	533.2	537.6
62.5°	480.3	479.2	468.2	471.5	481.4
65°	423.0	419.7	409.8	413.1	419.7
67.5°	362.4	359.1	350.3	352.5	358.0
70°	302.9	300.7	289.7	293.0	302.9
72.5°	244.5	240.1	233.5	234.6	241.2
75°	188.4	184.0	176.3	179.6	186.2
77.5°	135.5	133.3	127.8	128.9	135.5
80°	87.0	85.9	82.6	84.8	89.2
82.5°	50.7	48.5	45.2	47.4	49.6
85°	20.9	19.8	19.8	20.9	20.9
87.5°	4.4	4.4	5.5	5.5	5.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)