

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: P302608

Luminaire Tested: **FSP-24-38HE-40-CA08**

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: P302608
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1905-304-14)
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-CA08
Description: 2x4 Fail Safe Flat Panel Clear Acrylic Lens .08"
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

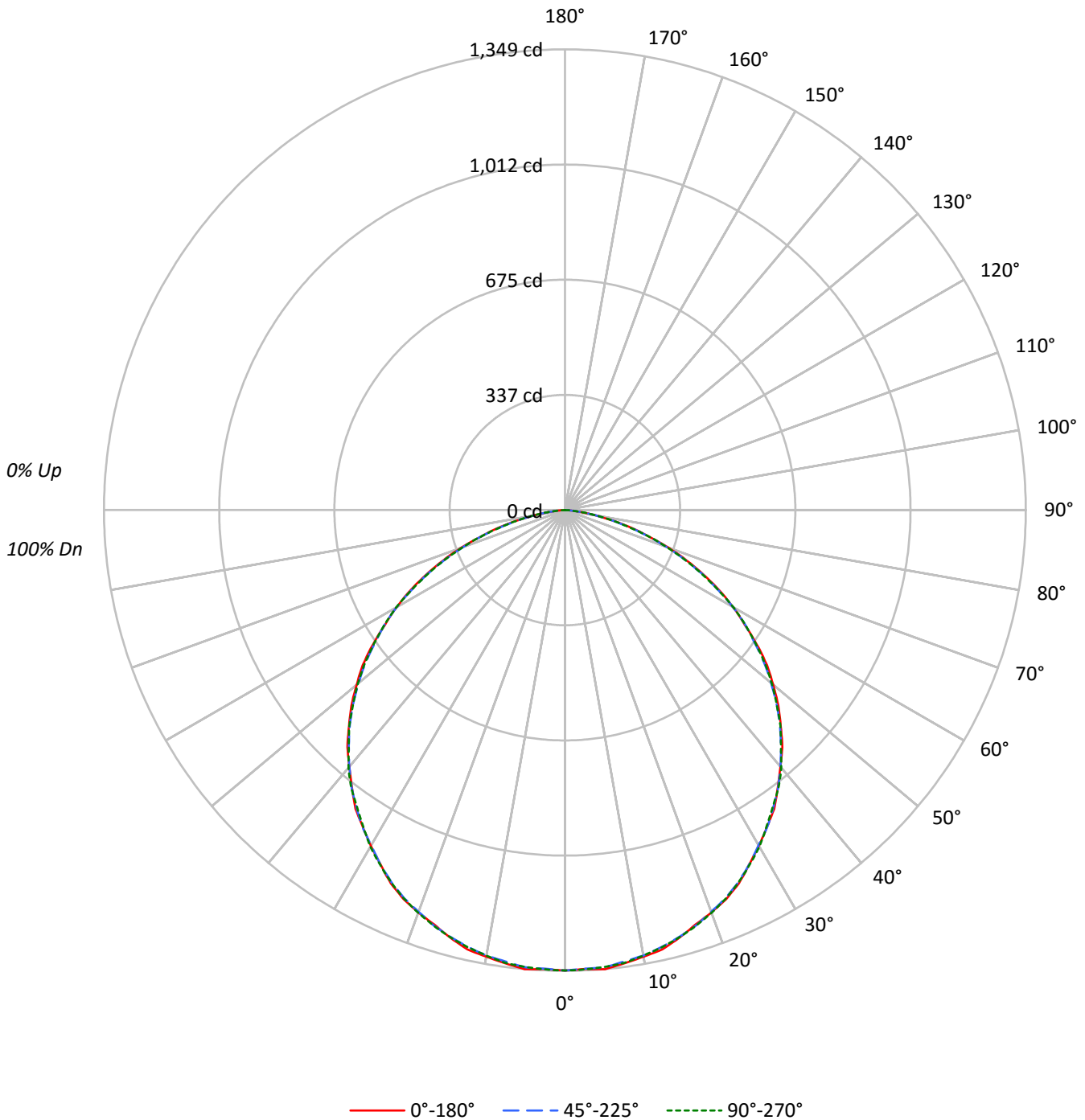
Lumens per Lamp: N/A
Luminaire Lumens: 3696.4 lumens
Efficiency: N/A
Efficacy: 127.9 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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	102	99	95	98	95	92	94	92	90	91	89	87	85
2	100	92	85	79	97	90	84	78	86	81	77	83	79	75	80	76	73	71
3	91	81	73	66	88	79	72	66	76	70	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44
6	71	57	49	42	69	57	48	42	55	47	42	53	46	41	51	46	41	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1814	1814	1814
5°	1822	1815	1813
10°	1814	1809	1809
15°	1805	1802	1804
20°	1795	1792	1797
25°	1790	1784	1786
30°	1764	1761	1769
35°	1754	1747	1742
40°	1723	1723	1731
45°	1700	1694	1698
50°	1665	1649	1656
55°	1609	1591	1599
60°	1531	1531	1534
65°	1427	1413	1410
70°	1273	1247	1251
75°	1066	1032	1022
80°	731	731	740
85°	386	386	418



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.5	3.5
10°-20°	365.2	9.9
20°-30°	553.2	15.0
30°-40°	665.2	18.0
40°-50°	686.7	18.6
50°-60°	610.0	16.5
60°-70°	439.1	11.9
70°-80°	212.4	5.7
80°-90°	37.0	1.0
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°	1045.9	28.3
0°-40°	1711.1	46.3
0°-60°	3007.9	81.4
0°-90°	3696.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3696.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1348	1348	1348	1348	1348	
5°	1349	1346	1344	1339	1343	128
15°	1296	1295	1294	1291	1295	366
25°	1206	1200	1202	1202	1203	554
35°	1068	1065	1064	1065	1060	666
45°	893	892	890	890	892	690
55°	686	685	678	682	682	612
65°	448	445	444	440	443	443
75°	205	201	199	198	196	215
85°	25	25	25	25	27	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1348.1	1348.1	1348.1	1348.1	1348.1
2.5°	1344.9	1344.9	1343.8	1344.9	1345.9
5°	1349.2	1345.9	1343.8	1339.4	1342.7
7.5°	1338.3	1335.1	1332.9	1329.7	1337.3
10°	1327.5	1327.5	1324.2	1318.8	1324.2
12.5°	1317.7	1311.2	1310.1	1309.0	1311.2
15°	1296.0	1294.9	1293.8	1290.6	1294.9
17.5°	1272.1	1275.4	1275.4	1275.4	1276.5
20°	1253.7	1251.5	1251.5	1251.5	1254.8
22.5°	1233.1	1228.7	1229.8	1225.5	1230.9
25°	1205.9	1200.5	1201.6	1201.6	1202.7
27.5°	1169.0	1169.0	1169.0	1170.1	1171.2
30°	1135.4	1137.5	1133.2	1132.1	1138.6
32.5°	1100.6	1100.6	1101.7	1097.4	1098.5
35°	1068.1	1064.8	1063.7	1064.8	1060.5
37.5°	1023.6	1025.7	1024.7	1023.6	1026.8
40°	981.2	984.5	981.2	980.2	985.6
42.5°	942.2	938.9	935.7	933.5	935.7
45°	893.3	892.2	890.1	890.1	892.2
47.5°	847.7	845.6	840.1	839.0	840.1
50°	795.6	793.5	788.0	792.4	791.3
52.5°	745.7	741.4	735.9	738.1	738.1
55°	686.0	684.9	678.4	681.7	681.7
57.5°	624.1	628.5	626.3	625.2	626.3
60°	568.8	572.0	568.8	565.5	569.9
62.5°	511.2	509.1	504.7	504.7	504.7
65°	448.3	445.0	443.9	439.6	442.9
67.5°	386.4	383.2	381.0	379.9	379.9
70°	323.5	321.3	316.9	315.9	318.0
72.5°	258.3	259.4	257.2	255.1	258.3
75°	205.1	200.8	198.6	197.6	196.5
77.5°	145.4	143.3	142.2	142.2	143.3
80°	94.4	94.4	94.4	94.4	95.5
82.5°	54.3	55.4	54.3	56.4	57.5
85°	25.0	25.0	25.0	25.0	27.1
87.5°	8.7	7.6	7.6	8.7	8.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)