

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: P302610

Luminaire Tested: **FSP-24-38HE-40-CP125**

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: P302610
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1905-304-16)
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-CP125
Description: 2x4 Fail Safe Flat Panel Clear Polycarbonate Lens .125"
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

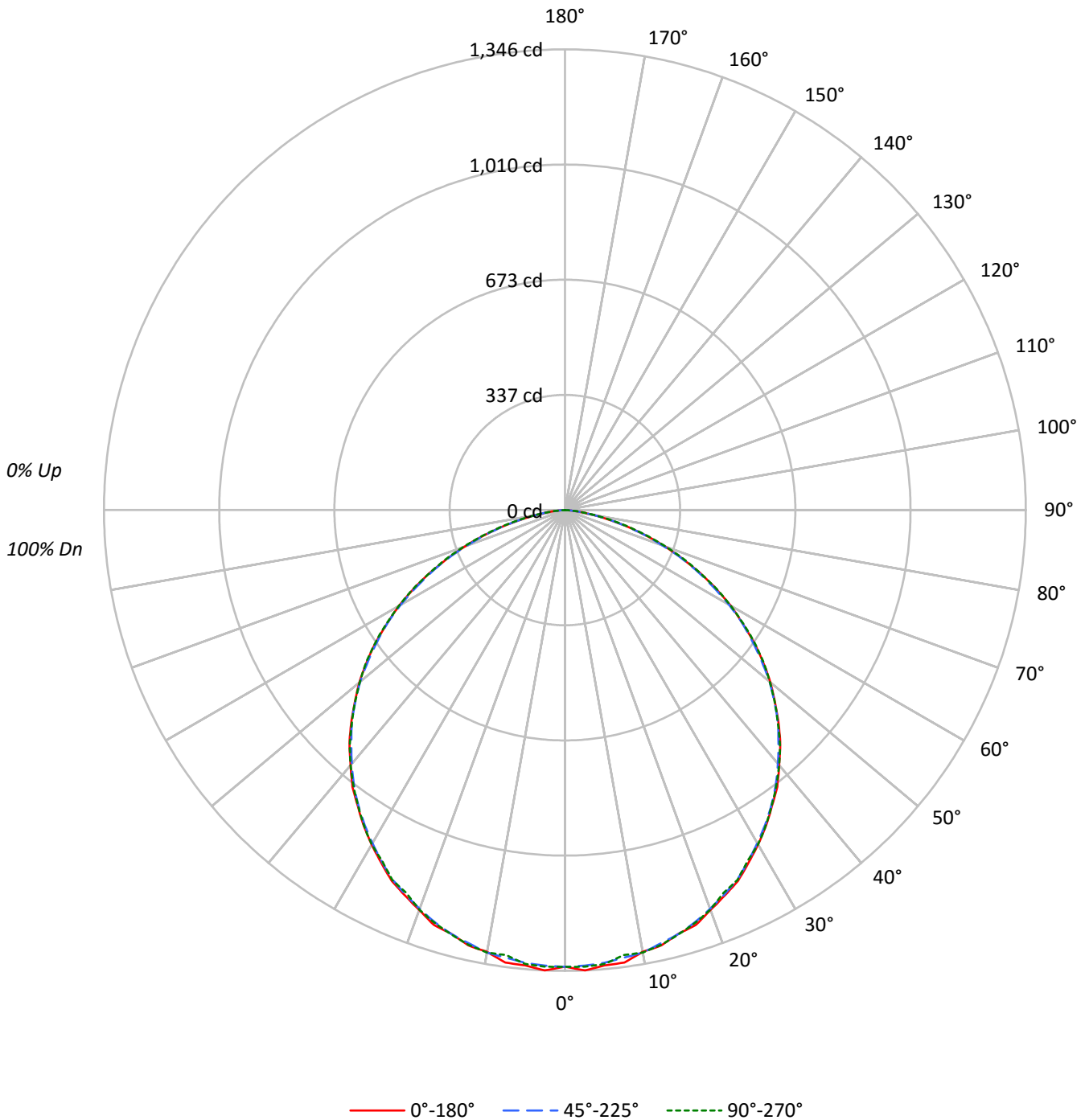
Lumens per Lamp: N/A
Luminaire Lumens: 3640.2 lumens
Efficiency: N/A
Efficacy: 126.0 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.26 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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	103	99	96	98	95	93	94	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	66	89	79	72	66	76	70	65	73	68	64	71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	52
5	77	64	55	49	75	63	55	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	42	69	57	48	42	55	47	42	53	47	42	52	46	41	39
7	66	52	44	38	64	51	43	37	50	42	37	48	42	37	47	41	37	35
8	61	48	39	33	60	47	39	33	46	38	33	44	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°	1795	1795	1795
5°	1803	1793	1798
10°	1790	1793	1793
15°	1784	1786	1787
20°	1780	1775	1778
25°	1775	1768	1770
30°	1753	1746	1753
35°	1732	1728	1730
40°	1709	1700	1709
45°	1681	1674	1674
50°	1640	1633	1636
55°	1581	1569	1586
60°	1505	1490	1505
65°	1387	1370	1391
70°	1223	1202	1241
75°	991	991	1025
80°	689	689	731
85°	335	335	367



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.3	3.5
10°-20°	361.9	9.9
20°-30°	548.1	15.1
30°-40°	658.9	18.1
40°-50°	679.3	18.7
50°-60°	599.9	16.5
60°-70°	427.8	11.8
70°-80°	204.2	5.6
80°-90°	33.8	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°	1036.3	28.5
0°-40°	1695.1	46.6
0°-60°	2974.3	81.7
0°-90°	3640.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3640.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1334	1334	1334	1334	1334	
5°	1335	1329	1328	1326	1331	127
15°	1281	1284	1282	1281	1283	363
25°	1195	1191	1191	1189	1192	549
35°	1054	1051	1052	1053	1053	660
45°	883	881	880	881	880	680
55°	674	672	669	671	676	602
65°	436	438	430	429	437	430
75°	191	193	191	186	197	205
85°	22	22	22	23	24	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1334.1	1334.1	1334.1	1334.1	1334.1
2.5°	1346.1	1334.1	1332.0	1334.1	1335.2
5°	1335.2	1328.7	1327.6	1325.5	1330.9
7.5°	1333.0	1324.4	1319.0	1319.0	1311.4
10°	1310.3	1314.6	1312.5	1308.1	1312.5
12.5°	1302.7	1298.4	1296.2	1296.2	1300.5
15°	1281.0	1284.3	1282.1	1281.0	1283.2
17.5°	1271.3	1265.9	1262.6	1261.5	1264.8
20°	1243.1	1239.8	1239.8	1240.9	1242.0
22.5°	1219.2	1214.9	1216.0	1219.2	1210.6
25°	1195.4	1191.1	1191.1	1188.9	1192.2
27.5°	1161.8	1159.6	1157.5	1159.6	1155.3
30°	1128.2	1125.0	1123.9	1127.1	1128.2
32.5°	1093.5	1091.4	1089.2	1090.3	1092.4
35°	1054.5	1051.3	1052.3	1053.4	1053.4
37.5°	1018.8	1013.3	1012.2	1015.5	1014.4
40°	973.2	975.4	967.8	972.1	973.2
42.5°	931.0	926.6	923.4	933.1	929.9
45°	883.3	881.1	880.0	881.1	880.0
47.5°	832.3	833.4	830.2	834.5	831.3
50°	783.6	784.7	780.3	780.3	781.4
52.5°	729.4	732.6	724.0	722.9	731.5
55°	674.1	671.9	668.7	670.9	676.3
57.5°	615.6	616.7	614.5	615.6	617.8
60°	559.2	557.1	553.8	548.4	559.2
62.5°	497.5	499.6	489.9	489.9	500.7
65°	435.7	437.8	430.3	429.2	436.8
67.5°	372.8	372.8	369.6	364.1	378.2
70°	311.0	311.0	305.6	305.6	315.4
72.5°	249.3	248.2	247.1	243.8	254.7
75°	190.7	192.9	190.7	186.4	197.2
77.5°	136.6	138.7	135.5	136.6	142.0
80°	88.9	88.9	88.9	87.8	94.3
82.5°	52.0	50.9	50.9	52.0	54.2
85°	21.7	21.7	21.7	22.8	23.8
87.5°	5.4	5.4	6.5	5.4	6.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)