

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: P307973

Luminaire Tested: **14FCZ2-39-UNV-L82765-S-CA08-W2A-U-4000K**

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: P307973
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-39-UNV-L82765-S-CA08-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 4000K TUNABLE 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

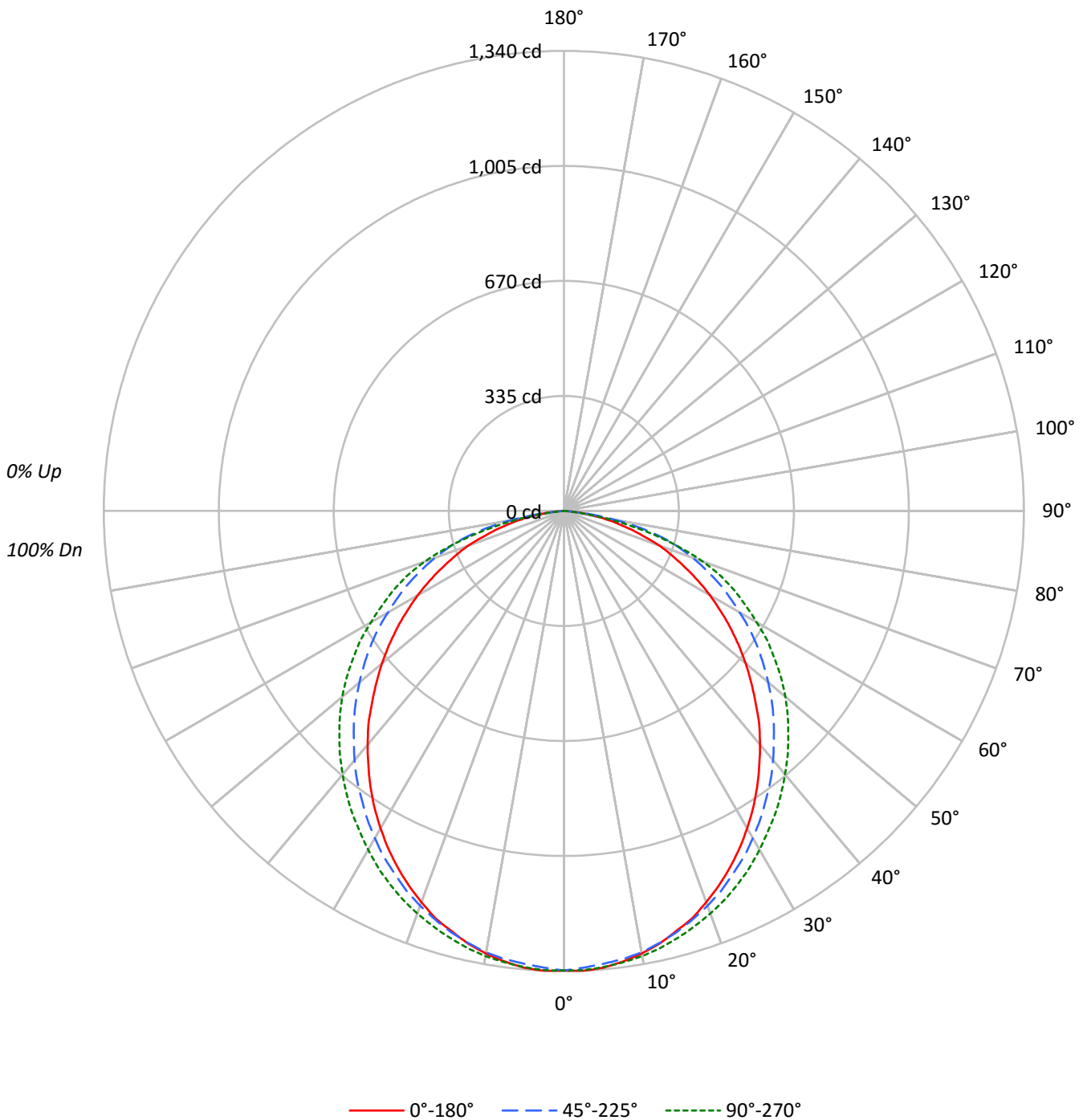
Lumens per Lamp: N/A
Luminaire Lumens: 3750.0 lumens
Efficiency: N/A
Efficacy: 111.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.7
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	104	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3602	3602	3602
5°	3606	3576	3601
10°	3577	3566	3597
15°	3528	3538	3584
20°	3472	3503	3573
25°	3401	3461	3561
30°	3316	3420	3541
35°	3225	3371	3530
40°	3122	3331	3521
45°	3007	3290	3517
50°	2896	3254	3526
55°	2774	3227	3515
60°	2642	3182	3492
65°	2486	3173	3493
70°	2341	3145	3394
75°	2030	3073	2900
80°	1643	2478	1931
85°	1090	861	574



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.4	3.4
10°-20°	359.7	9.6
20°-30°	539.6	14.4
30°-40°	643.7	17.2
40°-50°	665.4	17.7
50°-60°	607.5	16.2
60°-70°	478.1	12.7
70°-80°	278.3	7.4
80°-90°	51.3	1.4
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°	1025.7	27.4
0°-40°	1669.4	44.5
0°-60°	2942.3	78.5
0°-90°	3750.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3750.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1339	1339	1339	1339	1339	
5°	1335	1331	1324	1335	1333	127
15°	1266	1268	1270	1287	1287	357
25°	1145	1151	1166	1194	1199	527
35°	982	995	1026	1065	1075	614
45°	790	816	865	913	924	610
55°	591	623	688	738	749	529
65°	390	431	498	537	548	388
75°	195	242	296	290	279	208
85°	35	50	28	22	19	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1338.7	1338.7	1338.7	1338.7	1338.7
2.5°	1340.5	1336.8	1331.3	1340.5	1338.7
5°	1335.0	1331.3	1323.8	1335.0	1333.1
7.5°	1323.8	1320.1	1316.4	1327.5	1325.7
10°	1308.9	1307.1	1305.2	1318.2	1316.4
12.5°	1290.3	1290.3	1288.5	1303.4	1303.4
15°	1266.2	1268.0	1269.9	1286.6	1286.6
17.5°	1243.9	1242.0	1247.6	1266.2	1268.0
20°	1212.3	1216.0	1223.4	1245.7	1247.6
22.5°	1180.6	1184.4	1197.4	1219.7	1225.3
25°	1145.3	1150.9	1165.8	1193.7	1199.2
27.5°	1108.1	1115.6	1136.0	1165.8	1171.4
30°	1067.2	1078.4	1100.7	1134.2	1139.7
32.5°	1026.3	1037.5	1065.4	1098.8	1106.3
35°	981.7	994.7	1026.3	1065.4	1074.7
37.5°	935.2	952.0	989.1	1028.2	1039.3
40°	888.7	907.3	948.2	989.1	1002.2
42.5°	842.3	860.9	905.5	952.0	965.0
45°	790.2	816.2	864.6	912.9	924.1
47.5°	740.0	767.9	821.8	870.1	885.0
50°	691.7	719.5	777.2	827.4	842.3
52.5°	641.5	671.2	732.6	784.6	797.6
55°	591.3	622.9	687.9	738.1	749.3
57.5°	541.1	574.5	641.5	689.8	702.8
60°	490.9	526.2	591.3	639.6	648.9
62.5°	440.7	477.8	544.8	587.5	596.8
65°	390.5	431.4	498.3	537.3	548.5
67.5°	342.1	383.0	448.1	485.3	494.6
70°	297.5	334.7	399.7	427.6	431.4
72.5°	241.7	288.2	351.4	366.3	357.0
75°	195.2	241.7	295.6	290.0	278.9
77.5°	148.7	195.2	230.6	212.0	197.1
80°	106.0	152.5	159.9	132.0	124.6
82.5°	68.8	106.0	89.2	68.8	55.8
85°	35.3	50.2	27.9	22.3	18.6
87.5°	11.2	7.4	3.7	3.7	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)