

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: P312391

Luminaire Tested: **14FCZ2-39-UNV-L83050-S-CA08-W2A-U-3500K**

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: P312391
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-L83050-S-CA08-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 3500K 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: 3757.0 lumens
Efficiency: N/A
Efficacy: 112.8 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

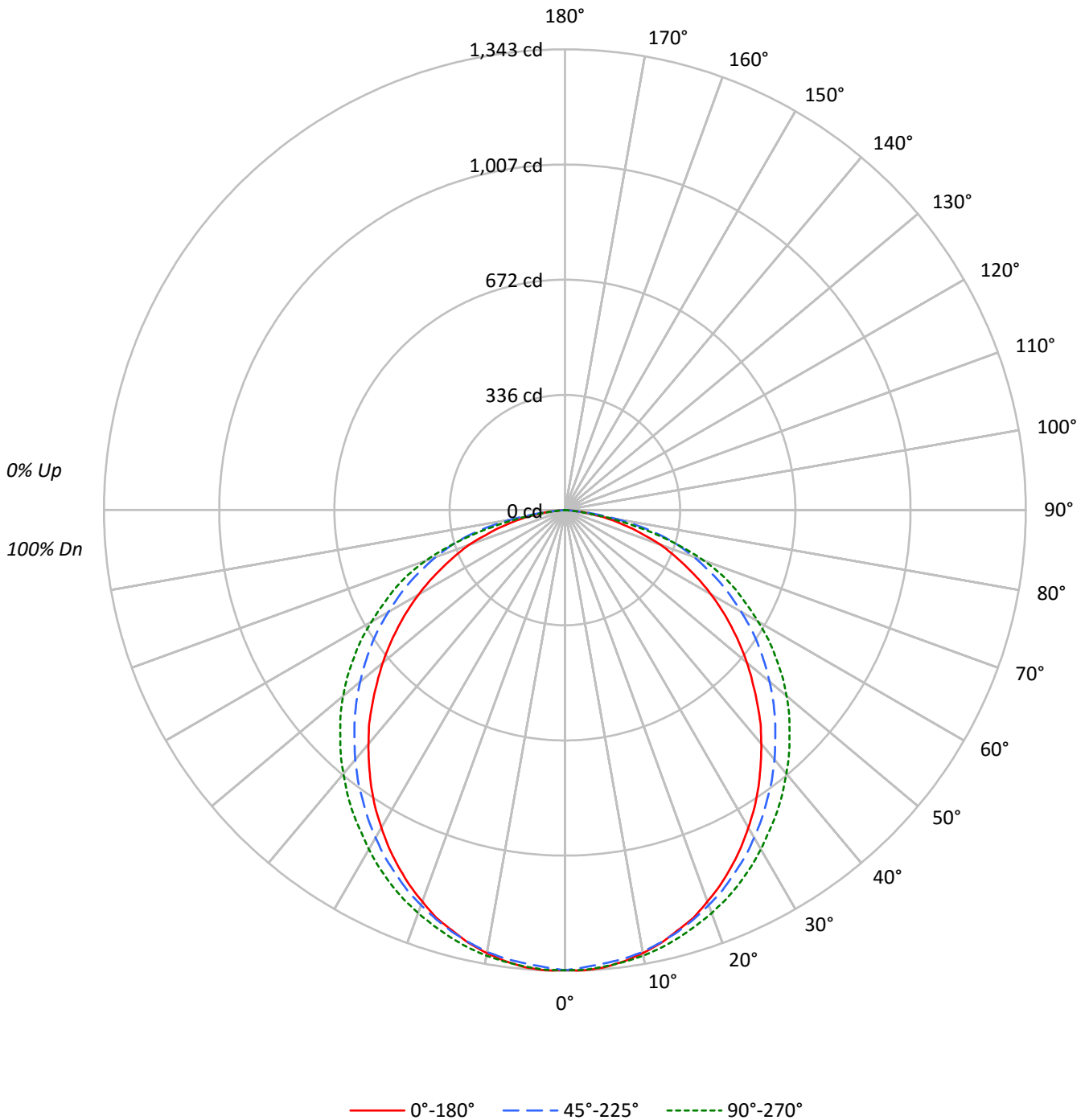
Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P312391

CATALOG NUMBER: 14FCZ2-39-UNV-L83050-S-CA08-W2A-U-3500K

Luminous Intensity Polar Plot





TEST NUMBER: P312391

CATALOG NUMBER: 14FCZ2-39-UNV-L83050-S-CA08-W2A-U-3500K

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°	3609	3609	3609
5°	3613	3583	3608
10°	3583	3573	3604
15°	3534	3545	3591
20°	3478	3510	3579
25°	3407	3468	3567
30°	3322	3427	3548
35°	3231	3378	3537
40°	3128	3337	3527
45°	3013	3296	3523
50°	2901	3260	3533
55°	2779	3233	3522
60°	2647	3188	3499
65°	2491	3179	3499
70°	2345	3151	3401
75°	2034	3080	2905
80°	1646	2483	1934
85°	1093	861	574



TEST NUMBER: P312391

CATALOG NUMBER: 14FCZ2-39-UNV-L83050-S-CA08-W2A-U-3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.6	3.4
10°-20°	360.4	9.6
20°-30°	540.6	14.4
30°-40°	644.9	17.2
40°-50°	666.7	17.7
50°-60°	608.7	16.2
60°-70°	479.0	12.7
70°-80°	278.8	7.4
80°-90°	51.4	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°	1027.6	27.4
0°-40°	1672.5	44.5
0°-60°	2947.8	78.5
0°-90°	3757.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3757.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1341	1341	1341	1341	1341	
5°	1338	1334	1326	1338	1336	127
15°	1268	1270	1272	1289	1289	358
25°	1148	1153	1168	1196	1202	528
35°	984	997	1028	1067	1077	615
45°	792	818	866	915	926	611
55°	592	624	689	740	751	530
65°	391	432	499	538	550	388
75°	196	242	296	291	279	208
85°	35	50	28	22	19	46
90°	0	0	0	0	0	



TEST NUMBER: P312391

CATALOG NUMBER: 14FCZ2-39-UNV-L83050-S-CA08-W2A-U-3500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1341.2	1341.2	1341.2	1341.2	1341.2
2.5°	1343.0	1339.3	1333.7	1343.0	1341.2
5°	1337.5	1333.7	1326.3	1337.5	1335.6
7.5°	1326.3	1322.6	1318.8	1330.0	1328.1
10°	1311.4	1309.5	1307.7	1320.7	1318.8
12.5°	1292.8	1292.8	1290.9	1305.8	1305.8
15°	1268.5	1270.4	1272.3	1289.0	1289.0
17.5°	1246.2	1244.3	1249.9	1268.5	1270.4
20°	1214.5	1218.2	1225.7	1248.0	1249.9
22.5°	1182.9	1186.6	1199.6	1222.0	1227.6
25°	1147.5	1153.0	1168.0	1195.9	1201.5
27.5°	1110.2	1117.7	1138.1	1168.0	1173.5
30°	1069.2	1080.4	1102.8	1136.3	1141.9
32.5°	1028.2	1039.4	1067.4	1100.9	1108.3
35°	983.5	996.6	1028.2	1067.4	1076.7
37.5°	937.0	953.7	991.0	1030.1	1041.3
40°	890.4	909.0	950.0	991.0	1004.0
42.5°	843.8	862.5	907.2	953.7	966.8
45°	791.7	817.8	866.2	914.6	925.8
47.5°	741.4	769.3	823.3	871.8	886.7
50°	692.9	720.9	778.6	828.9	843.8
52.5°	642.7	672.5	733.9	786.1	799.1
55°	592.4	624.0	689.2	739.5	750.7
57.5°	542.1	575.6	642.7	691.1	704.1
60°	491.8	527.2	592.4	640.8	650.1
62.5°	441.5	478.7	545.8	588.6	597.9
65°	391.2	432.2	499.2	538.3	549.5
67.5°	342.7	383.7	448.9	486.2	495.5
70°	298.0	335.3	400.5	428.4	432.2
72.5°	242.2	288.7	352.1	367.0	357.6
75°	195.6	242.2	296.2	290.6	279.4
77.5°	149.0	195.6	231.0	212.4	197.5
80°	106.2	152.7	160.2	132.3	124.8
82.5°	68.9	106.2	89.4	68.9	55.9
85°	35.4	50.3	27.9	22.4	18.6
87.5°	11.2	7.5	3.7	3.7	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)