

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: P308004

Luminaire Tested: **14FCZ2-39-UNV-L82765-S-CP187-W2A-U-5700K**

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: P308004
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-CP187-W2A-U-5700K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.187" POLYCARB SHEET
Light Source: (168) 5700K 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: 3665.0 lumens
Efficiency: N/A
Efficacy: 107.2 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

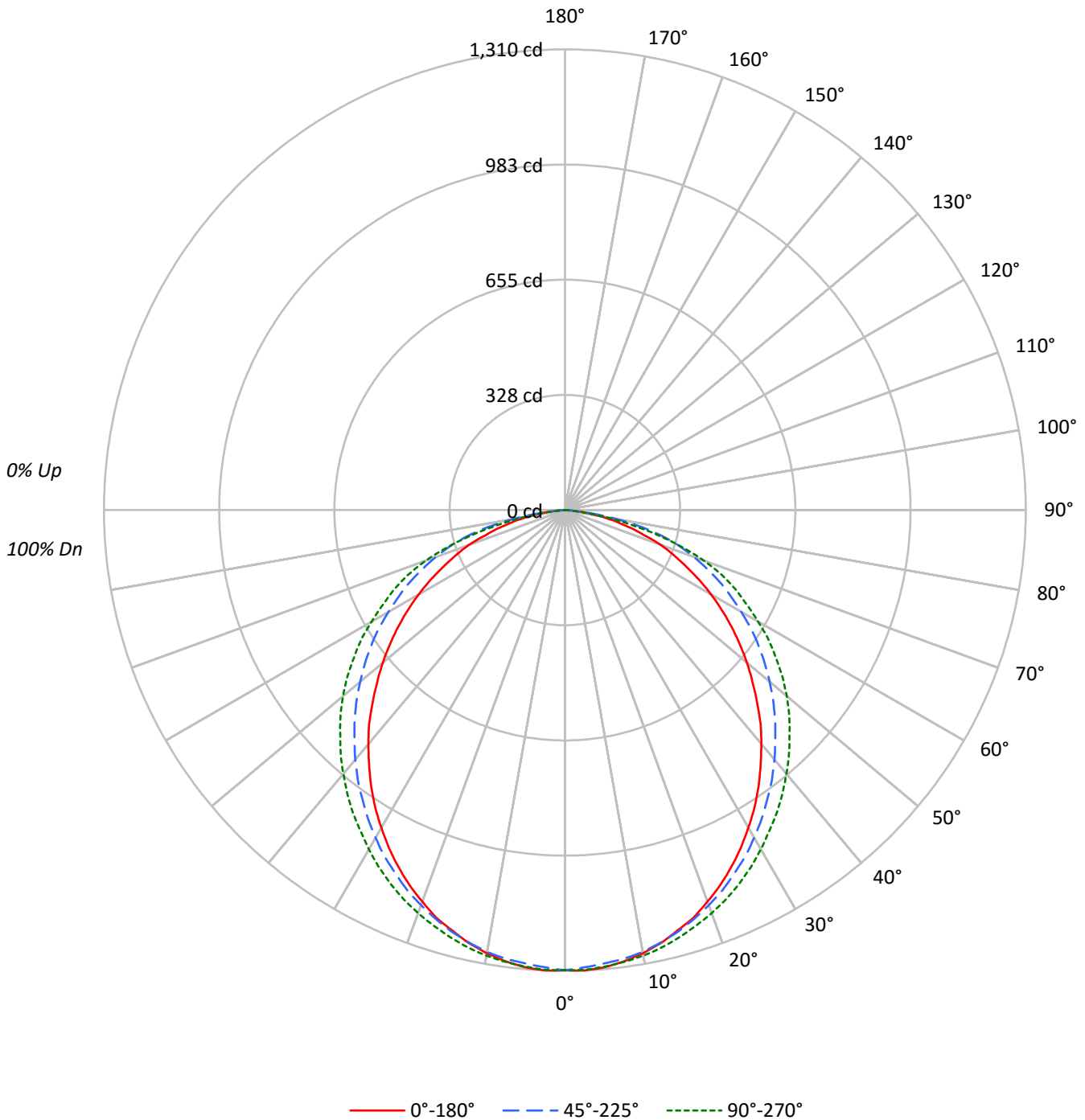
Input Watts (W): 34.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3521	3521	3521
5°	3524	3495	3519
10°	3496	3486	3515
15°	3448	3458	3503
20°	3393	3424	3492
25°	3324	3383	3480
30°	3241	3342	3461
35°	3152	3295	3450
40°	3051	3255	3440
45°	2939	3216	3437
50°	2830	3180	3446
55°	2711	3154	3436
60°	2582	3110	3413
65°	2430	3101	3414
70°	2287	3074	3317
75°	1984	3004	2834
80°	1605	2422	1886
85°	1065	843	562



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.5	3.4
10°-20°	351.6	9.6
20°-30°	527.3	14.4
30°-40°	629.1	17.2
40°-50°	650.3	17.7
50°-60°	593.8	16.2
60°-70°	467.3	12.7
70°-80°	272.0	7.4
80°-90°	50.1	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°	1002.5	27.4
0°-40°	1631.5	44.5
0°-60°	2875.6	78.5
0°-90°	3665.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3665.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1308	1308	1308	1308	1308	
5°	1305	1301	1294	1305	1303	124
15°	1238	1239	1241	1258	1258	349
25°	1119	1125	1139	1167	1172	515
35°	960	972	1003	1041	1050	600
45°	772	798	845	892	903	596
55°	578	609	672	721	732	517
65°	382	422	487	525	536	379
75°	191	236	289	284	273	203
85°	34	49	27	22	18	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1308.3	1308.3	1308.3	1308.3	1308.3
2.5°	1310.2	1306.5	1301.1	1310.2	1308.3
5°	1304.7	1301.1	1293.8	1304.7	1302.9
7.5°	1293.8	1290.2	1286.5	1297.4	1295.6
10°	1279.3	1277.5	1275.6	1288.4	1286.5
12.5°	1261.1	1261.1	1259.3	1273.8	1273.8
15°	1237.5	1239.3	1241.1	1257.5	1257.5
17.5°	1215.7	1213.9	1219.3	1237.5	1239.3
20°	1184.8	1188.4	1195.7	1217.5	1219.3
22.5°	1153.9	1157.5	1170.2	1192.0	1197.5
25°	1119.4	1124.8	1139.3	1166.6	1172.1
27.5°	1083.0	1090.3	1110.3	1139.3	1144.8
30°	1043.0	1053.9	1075.7	1108.5	1113.9
32.5°	1003.1	1014.0	1041.2	1073.9	1081.2
35°	959.5	972.2	1003.1	1041.2	1050.3
37.5°	914.0	930.4	966.7	1004.9	1015.8
40°	868.6	886.8	926.7	966.7	979.4
42.5°	823.2	841.3	884.9	930.4	943.1
45°	772.3	797.7	845.0	892.2	903.1
47.5°	723.2	750.5	803.2	850.4	865.0
50°	676.0	703.2	759.6	808.6	823.2
52.5°	626.9	656.0	716.0	766.8	779.6
55°	577.9	608.7	672.3	721.4	732.3
57.5°	528.8	561.5	626.9	674.2	686.9
60°	479.7	514.3	577.9	625.1	634.2
62.5°	430.7	467.0	532.4	574.2	583.3
65°	381.6	421.6	487.0	525.2	536.1
67.5°	334.4	374.3	437.9	474.3	483.4
70°	290.7	327.1	390.7	417.9	421.6
72.5°	236.2	281.7	343.4	358.0	348.9
75°	190.8	236.2	288.9	283.5	272.6
77.5°	145.4	190.8	225.3	207.2	192.6
80°	103.6	149.0	156.3	129.0	121.7
82.5°	67.2	103.6	87.2	67.2	54.5
85°	34.5	49.1	27.3	21.8	18.2
87.5°	10.9	7.3	3.6	3.6	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)