

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: P312257

Luminaire Tested: **14FCZ2-39-UNV-L83050-CP187-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: P312257  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)  
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-CP187-W2A-U-4000K  
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.187" POLYCARB 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**

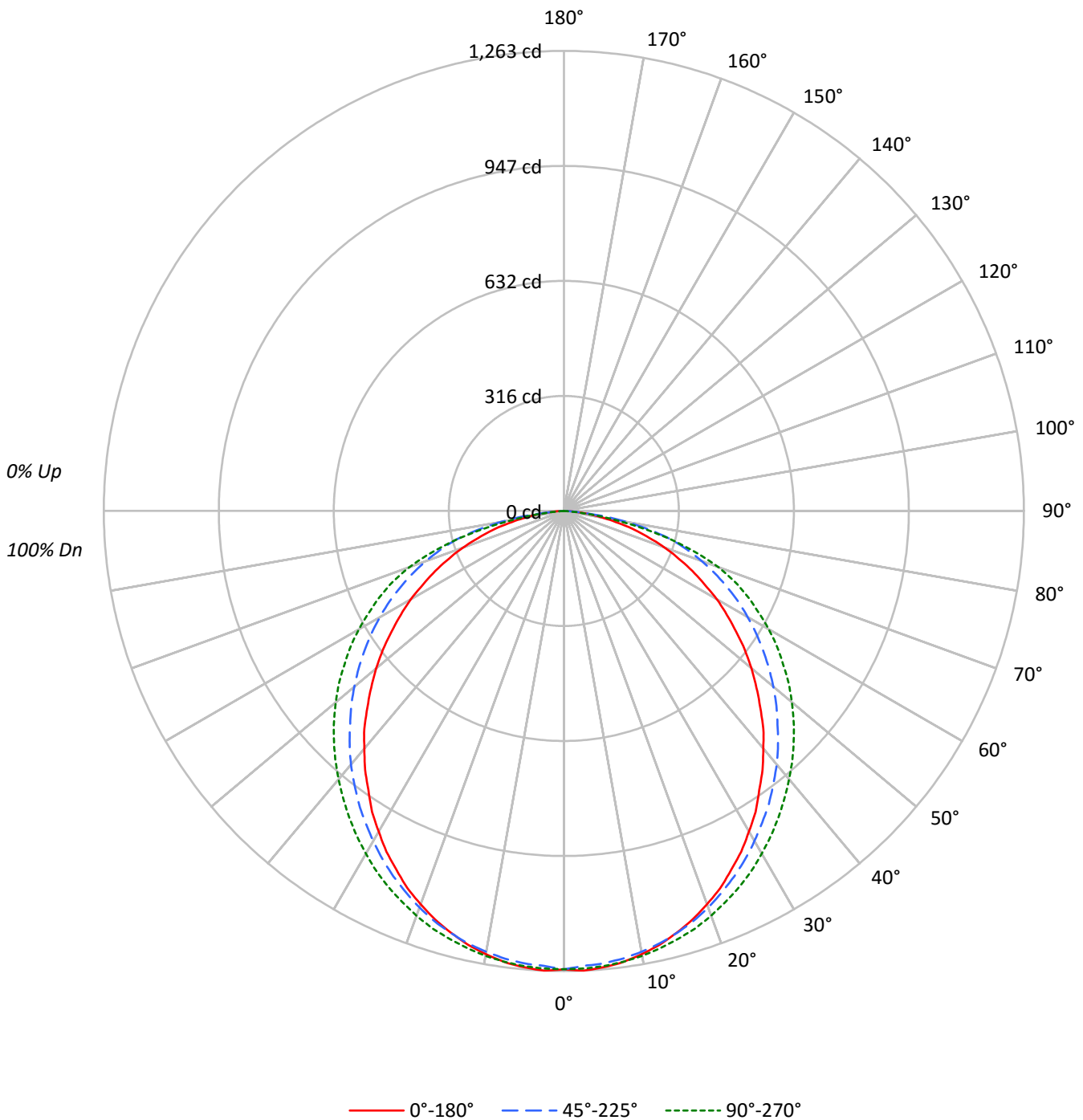
Lumens per Lamp: N/A  
Luminaire Lumens: 3652.0 lumens  
Efficiency: N/A  
Efficacy: 107.1 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 34.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: P312257

CATALOG NUMBER: 14FCZ2-39-UNV-L83050-CP187-W2A-U-4000K

### Luminous Intensity Polar Plot





TEST NUMBER: P312257

CATALOG NUMBER: 14FCZ2-39-UNV-L83050-CP187-W2A-U-4000K

**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	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	37	30	26	37	30	25	36	30	25	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3386	3386	3386
5°	3396	3368	3388
10°	3375	3358	3389
15°	3339	3342	3387
20°	3290	3318	3386
25°	3228	3286	3382
30°	3158	3251	3375
35°	3074	3224	3373
40°	2992	3192	3378
45°	2901	3158	3397
50°	2816	3143	3419
55°	2709	3133	3450
60°	2612	3138	3497
65°	2478	3147	3552
70°	2326	3172	3549
75°	2109	3200	3209
80°	1729	2763	2284
85°	1281	1306	528



TEST NUMBER: P312257

CATALOG NUMBER: 14FCZ2-39-UNV-L83050-CP187-W2A-U-4000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	119.1	3.3
10°-20°	340.1	9.3
20°-30°	512.3	14.0
30°-40°	614.8	16.8
40°-50°	640.8	17.5
50°-60°	593.2	16.2
60°-70°	479.3	13.1
70°-80°	292.2	8.0
80°-90°	60.3	1.7
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°	971.4	26.6
0°-40°	1586.2	43.4
0°-60°	2820.2	77.2
0°-90°	3652.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3652.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1258	1258	1258	1258	1258	
5°	1257	1254	1247	1256	1254	119
15°	1199	1200	1200	1216	1216	338
25°	1087	1094	1107	1134	1139	501
35°	936	950	981	1017	1027	586
45°	762	785	830	876	892	589
55°	577	608	668	720	735	517
65°	389	428	494	544	558	385
75°	203	248	308	313	309	213
85°	42	62	42	24	17	51
90°	0	0	0	0	0	



TEST NUMBER: P312257

CATALOG NUMBER: 14FCZ2-39-UNV-L83050-CP187-W2A-U-4000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1258.1	1258.1	1258.1	1258.1	1258.1
2.5°	1263.0	1258.9	1250.0	1258.9	1257.3
5°	1257.3	1254.1	1246.7	1255.7	1254.1
7.5°	1249.2	1245.9	1239.4	1250.0	1248.4
10°	1235.3	1233.7	1228.8	1241.0	1240.2
12.5°	1219.0	1218.2	1215.8	1229.6	1228.8
15°	1198.7	1199.5	1199.5	1215.8	1215.8
17.5°	1175.9	1177.5	1180.8	1198.7	1201.1
20°	1149.0	1152.3	1158.8	1179.1	1182.4
22.5°	1121.3	1123.8	1133.5	1158.0	1161.2
25°	1087.1	1093.6	1106.7	1134.3	1139.2
27.5°	1054.5	1060.2	1078.2	1106.7	1114.8
30°	1016.3	1025.2	1046.4	1077.3	1086.3
32.5°	979.6	989.4	1013.8	1049.7	1057.8
35°	935.7	950.3	981.3	1017.1	1026.9
37.5°	895.8	909.6	944.6	983.7	995.1
40°	851.8	868.9	908.8	950.3	961.7
42.5°	811.1	827.4	870.5	912.9	928.3
45°	762.2	785.0	829.8	876.2	892.5
47.5°	717.4	740.2	791.5	841.2	855.9
50°	672.6	697.1	750.8	802.1	816.8
52.5°	626.2	652.3	710.1	761.4	778.5
55°	577.4	607.5	667.7	719.9	735.3
57.5°	530.9	561.9	626.2	679.1	694.6
60°	485.3	517.1	583.1	633.5	649.8
62.5°	434.8	472.3	540.7	590.4	602.6
65°	389.2	427.5	494.3	544.0	557.8
67.5°	341.2	382.7	449.5	495.1	508.1
70°	295.6	338.8	403.1	445.4	451.1
72.5°	246.7	290.7	355.9	382.7	382.7
75°	202.8	247.6	307.8	312.7	308.6
77.5°	154.7	204.4	243.5	233.7	223.9
80°	111.6	160.4	178.3	160.4	147.4
82.5°	74.9	116.4	107.5	85.5	75.7
85°	41.5	61.9	42.3	23.6	17.1
87.5°	15.5	13.8	4.1	4.1	4.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)