

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: P312262

Luminaire Tested: **14FCZ2-39-UNV-L83050-CP250-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: P312262
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-CP250-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.250" 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: 3622.0 lumens
Efficiency: N/A
Efficacy: 106.2 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

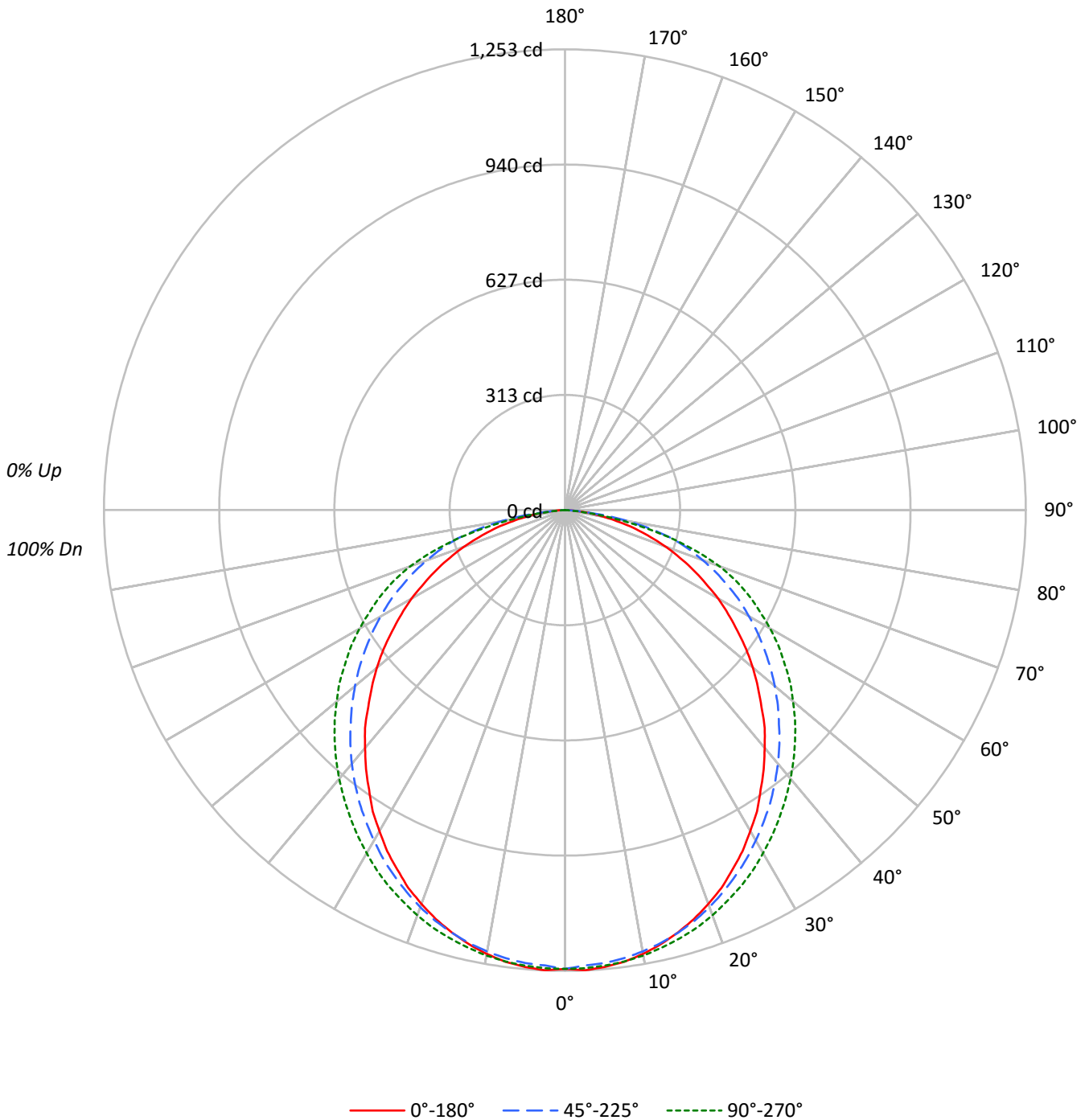
Input Watts (W): 34.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	3358	3358	3358
5°	3368	3340	3360
10°	3348	3330	3361
15°	3312	3314	3359
20°	3263	3291	3358
25°	3201	3259	3355
30°	3132	3225	3348
35°	3049	3197	3346
40°	2968	3166	3351
45°	2877	3132	3369
50°	2793	3117	3391
55°	2686	3107	3422
60°	2590	3112	3469
65°	2458	3121	3522
70°	2307	3146	3520
75°	2091	3174	3183
80°	1714	2741	2266
85°	1272	1297	525



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.1	3.3
10°-20°	337.3	9.3
20°-30°	508.1	14.0
30°-40°	609.7	16.8
40°-50°	635.5	17.5
50°-60°	588.3	16.2
60°-70°	475.3	13.1
70°-80°	289.8	8.0
80°-90°	59.8	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°	963.5	26.6
0°-40°	1573.2	43.4
0°-60°	2797.0	77.2
0°-90°	3622.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3622.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1248	1248	1248	1248	1248	
5°	1247	1244	1236	1245	1244	118
15°	1189	1190	1190	1206	1206	335
25°	1078	1085	1098	1125	1130	497
35°	928	942	973	1009	1018	581
45°	756	779	823	869	885	584
55°	573	602	662	714	729	513
65°	386	424	490	540	553	382
75°	201	246	305	310	306	211
85°	41	61	42	23	17	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1247.8	1247.8	1247.8	1247.8	1247.8
2.5°	1252.6	1248.6	1239.7	1248.6	1247.0
5°	1247.0	1243.8	1236.5	1245.4	1243.8
7.5°	1238.9	1235.7	1229.2	1239.7	1238.1
10°	1225.2	1223.6	1218.7	1230.8	1230.0
12.5°	1209.0	1208.2	1205.8	1219.5	1218.7
15°	1188.8	1189.6	1189.6	1205.8	1205.8
17.5°	1166.2	1167.8	1171.1	1188.8	1191.3
20°	1139.6	1142.8	1149.3	1169.5	1172.7
22.5°	1112.1	1114.5	1124.2	1148.5	1151.7
25°	1078.2	1084.6	1097.6	1125.0	1129.9
27.5°	1045.9	1051.5	1069.3	1097.6	1105.6
30°	1007.9	1016.8	1037.8	1068.5	1077.4
32.5°	971.6	981.3	1005.5	1041.0	1049.1
35°	928.0	942.5	973.2	1008.7	1018.4
37.5°	888.4	902.1	936.9	975.6	986.9
40°	844.8	861.7	901.3	942.5	953.8
42.5°	804.4	820.6	863.4	905.4	920.7
45°	755.9	778.6	823.0	869.0	885.2
47.5°	711.5	734.1	785.0	834.3	848.8
50°	667.1	691.3	744.6	795.5	810.1
52.5°	621.1	646.9	704.3	755.1	772.1
55°	572.6	602.5	662.3	713.9	729.3
57.5°	526.6	557.3	621.1	673.6	688.9
60°	481.3	512.8	578.3	628.3	644.5
62.5°	431.3	468.4	536.3	585.5	597.6
65°	386.0	424.0	490.2	539.5	553.2
67.5°	338.4	379.6	445.8	491.0	504.0
70°	293.2	336.0	399.8	441.8	447.4
72.5°	244.7	288.3	352.9	379.6	379.6
75°	201.1	245.5	305.3	310.1	306.1
77.5°	153.5	202.7	241.5	231.8	222.1
80°	110.6	159.1	176.9	159.1	146.2
82.5°	74.3	115.5	106.6	84.8	75.1
85°	41.2	61.4	42.0	23.4	17.0
87.5°	15.3	13.7	4.0	4.0	4.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)