

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: P312285

Luminaire Tested: **14FCZ2-44-UNV-L83050-CP250-W2A-U-3000K**

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: P312285
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: 14FCZ2-44-UNV-L83050-CP250-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.250" POLYCARB SHEET
Light Source: (168) 3000K 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

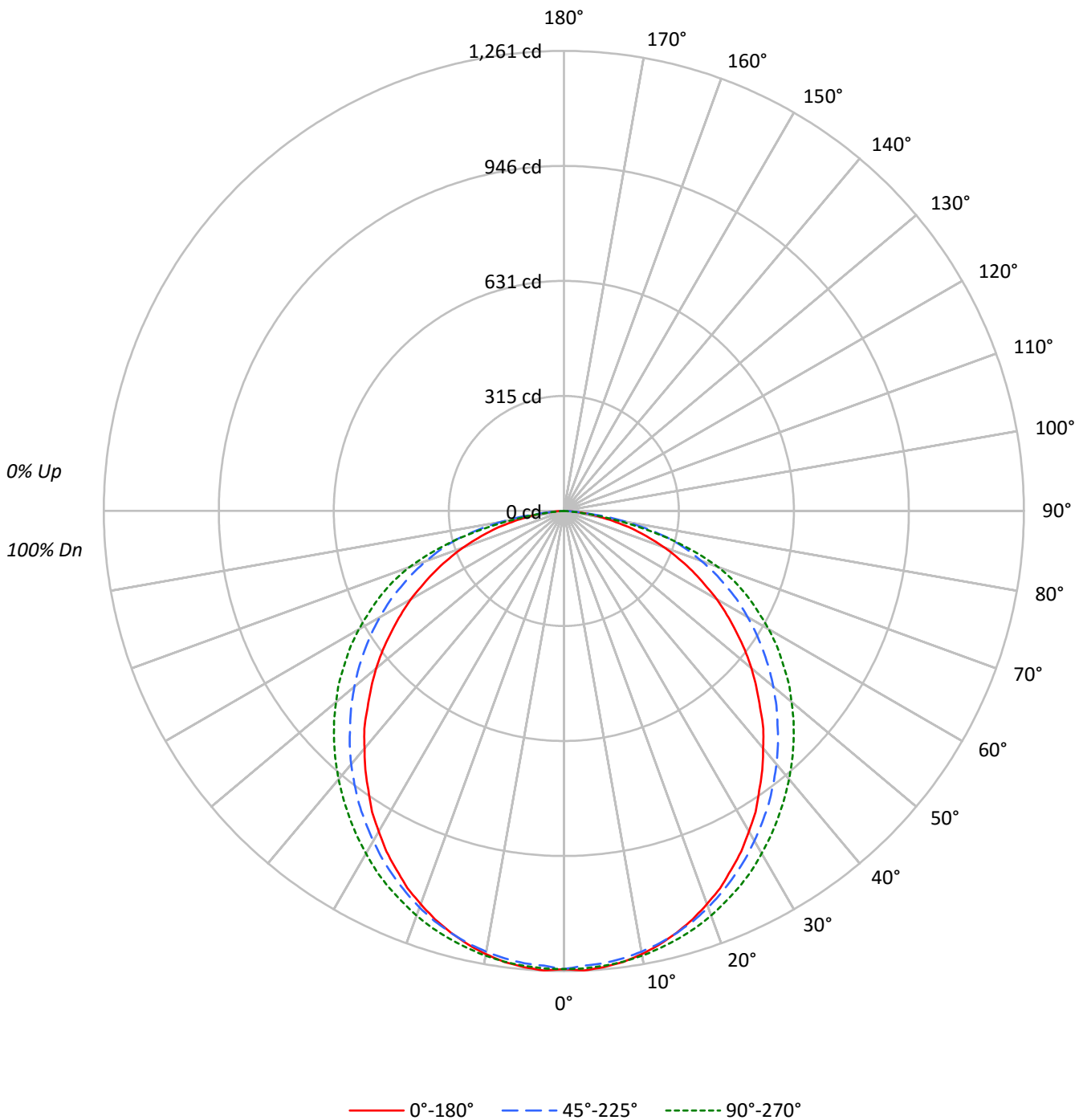
Lumens per Lamp: N/A
Luminaire Lumens: 3645.0 lumens
Efficiency: N/A
Efficacy: 95.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 38.2
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	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°	3379	3379	3379
5°	3390	3361	3381
10°	3369	3351	3382
15°	3333	3335	3381
20°	3284	3312	3379
25°	3222	3279	3376
30°	3152	3245	3369
35°	3068	3217	3367
40°	2986	3186	3372
45°	2895	3152	3390
50°	2810	3137	3413
55°	2703	3127	3443
60°	2607	3132	3491
65°	2474	3141	3545
70°	2321	3165	3543
75°	2104	3194	3202
80°	1725	2758	2280
85°	1281	1306	528



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.8	3.3
10°-20°	339.4	9.3
20°-30°	511.3	14.0
30°-40°	613.6	16.8
40°-50°	639.5	17.5
50°-60°	592.0	16.2
60°-70°	478.4	13.1
70°-80°	291.7	8.0
80°-90°	60.2	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°	969.6	26.6
0°-40°	1583.2	43.4
0°-60°	2814.7	77.2
0°-90°	3645.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3645.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1256	1256	1256	1256	1256	
5°	1255	1252	1244	1253	1252	119
15°	1196	1197	1197	1214	1214	337
25°	1085	1092	1104	1132	1137	500
35°	934	948	979	1015	1025	585
45°	761	784	828	874	891	588
55°	576	606	666	718	734	516
65°	388	427	493	543	557	384
75°	202	247	307	312	308	213
85°	42	62	42	24	17	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1255.7	1255.7	1255.7	1255.7	1255.7
2.5°	1260.6	1256.5	1247.6	1256.5	1254.9
5°	1254.9	1251.7	1244.3	1253.3	1251.7
7.5°	1246.8	1243.5	1237.0	1247.6	1246.0
10°	1233.0	1231.3	1226.5	1238.6	1237.8
12.5°	1216.7	1215.9	1213.5	1227.3	1226.5
15°	1196.4	1197.2	1197.2	1213.5	1213.5
17.5°	1173.6	1175.3	1178.5	1196.4	1198.8
20°	1146.8	1150.1	1156.6	1176.9	1180.1
22.5°	1119.2	1121.6	1131.4	1155.7	1159.0
25°	1085.0	1091.5	1104.5	1132.2	1137.1
27.5°	1052.5	1058.2	1076.1	1104.5	1112.7
30°	1014.3	1023.3	1044.4	1075.3	1084.2
32.5°	977.8	987.5	1011.9	1047.6	1055.8
35°	933.9	948.5	979.4	1015.1	1024.9
37.5°	894.0	907.9	942.8	981.8	993.2
40°	850.1	867.2	907.0	948.5	959.9
42.5°	809.5	825.8	868.8	911.1	926.5
45°	760.7	783.5	828.2	874.5	890.8
47.5°	716.0	738.8	790.0	839.6	854.2
50°	671.3	695.7	749.4	800.6	815.2
52.5°	625.0	651.0	708.7	759.9	777.0
55°	576.2	606.3	666.5	718.5	733.9
57.5°	529.9	560.8	625.0	677.8	693.3
60°	484.4	516.1	581.9	632.3	648.6
62.5°	434.0	471.4	539.7	589.3	601.4
65°	388.5	426.7	493.3	542.9	556.7
67.5°	340.5	382.0	448.6	494.2	507.2
70°	295.0	338.1	402.3	444.6	450.3
72.5°	246.3	290.2	355.2	382.0	382.0
75°	202.4	247.1	307.2	312.1	308.0
77.5°	154.4	204.0	243.0	233.3	223.5
80°	111.3	160.1	178.0	160.1	147.1
82.5°	74.8	116.2	107.3	85.3	75.6
85°	41.5	61.8	42.3	23.6	17.1
87.5°	15.4	13.8	4.1	4.1	4.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)