

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: P307772

Luminaire Tested: **14FCZ2-44-UNV-L82765-CP187-W2A-U-2700K**

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: P307772
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-L82765-CP187-W2A-U-2700K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.187" POLYCARB SHEET
Light Source: (168) 2700K 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: 3568.0 lumens
Efficiency: N/A
Efficacy: 93.2 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

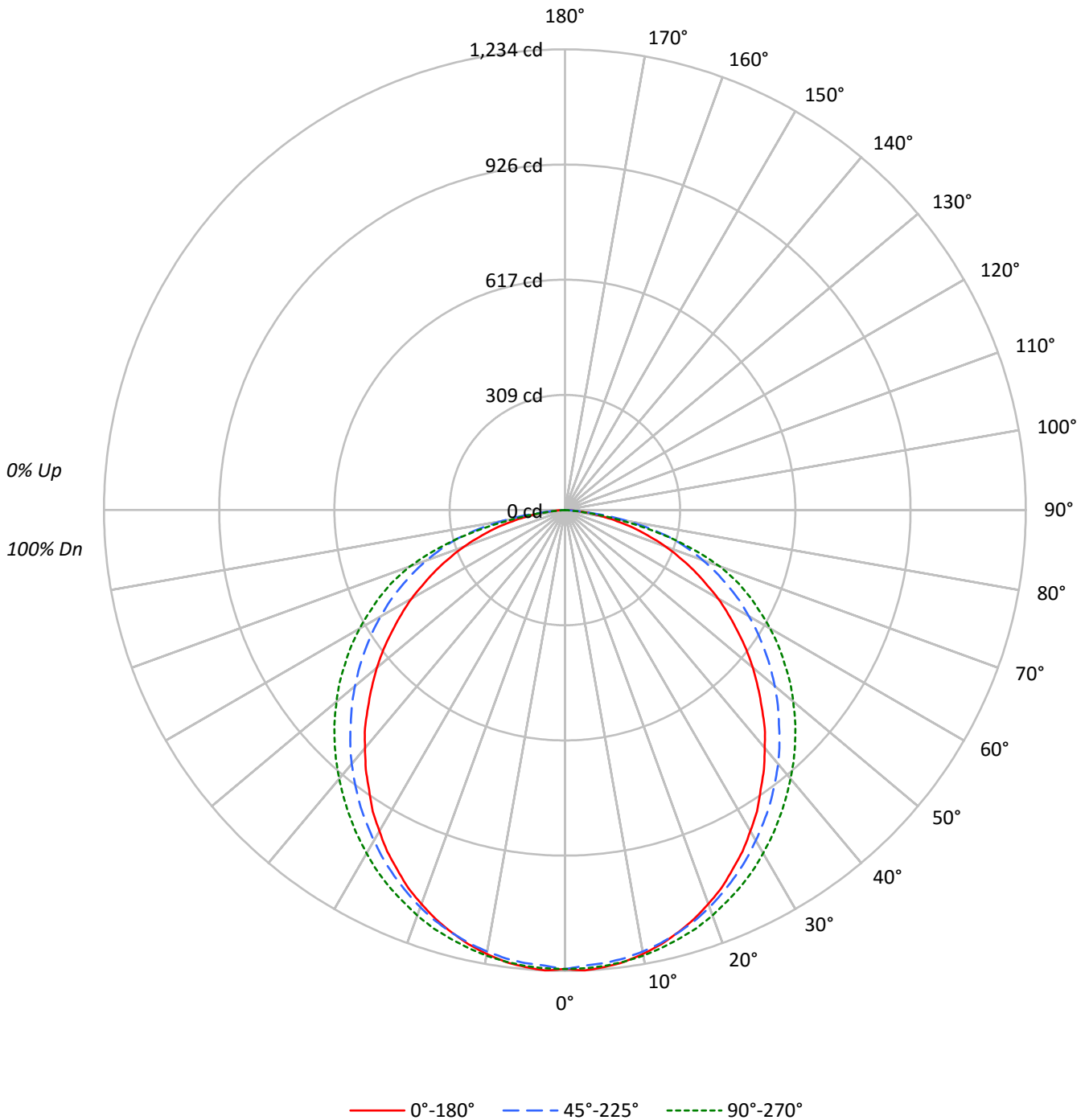
Input Watts (W): 38.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3308	3308	3308
5°	3318	3290	3310
10°	3298	3280	3311
15°	3263	3265	3309
20°	3215	3242	3308
25°	3154	3210	3305
30°	3085	3177	3298
35°	3003	3149	3296
40°	2923	3119	3301
45°	2834	3085	3318
50°	2751	3071	3341
55°	2647	3061	3370
60°	2552	3066	3417
65°	2422	3075	3470
70°	2272	3098	3468
75°	2060	3126	3135
80°	1689	2700	2232
85°	1254	1278	516



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.3	3.3
10°-20°	332.3	9.3
20°-30°	500.5	14.0
30°-40°	600.6	16.8
40°-50°	626.0	17.5
50°-60°	579.6	16.2
60°-70°	468.3	13.1
70°-80°	285.5	8.0
80°-90°	58.9	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°	949.1	26.6
0°-40°	1549.7	43.4
0°-60°	2755.3	77.2
0°-90°	3568.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3568.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1229	1229	1229	1229	1229	
5°	1228	1225	1218	1227	1225	117
15°	1171	1172	1172	1188	1188	330
25°	1062	1068	1081	1108	1113	490
35°	914	928	959	994	1003	573
45°	745	767	811	856	872	576
55°	564	594	652	703	718	505
65°	380	418	483	532	545	376
75°	198	242	301	306	302	208
85°	41	60	41	23	17	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1229.2	1229.2	1229.2	1229.2	1229.2
2.5°	1234.0	1230.0	1221.2	1230.0	1228.4
5°	1228.4	1225.2	1218.0	1226.8	1225.2
7.5°	1220.4	1217.3	1210.9	1221.2	1219.6
10°	1206.9	1205.3	1200.5	1212.5	1211.7
12.5°	1191.0	1190.2	1187.8	1201.3	1200.5
15°	1171.1	1171.9	1171.9	1187.8	1187.8
17.5°	1148.8	1150.4	1153.6	1171.1	1173.5
20°	1122.6	1125.8	1132.1	1152.0	1155.2
22.5°	1095.5	1097.9	1107.5	1131.3	1134.5
25°	1062.1	1068.5	1081.2	1108.3	1113.0
27.5°	1030.3	1035.9	1053.4	1081.2	1089.2
30°	992.9	1001.6	1022.3	1052.6	1061.3
32.5°	957.1	966.6	990.5	1025.5	1033.5
35°	914.1	928.5	958.7	993.7	1003.2
37.5°	875.1	888.7	922.9	961.1	972.2
40°	832.2	848.9	887.9	928.5	939.6
42.5°	792.4	808.3	850.5	891.9	907.0
45°	744.7	766.9	810.7	856.1	872.0
47.5°	700.9	723.2	773.3	821.8	836.2
50°	657.2	681.0	733.5	783.7	798.0
52.5°	611.8	637.3	693.8	743.9	760.6
55°	564.1	593.5	652.4	703.3	718.4
57.5°	518.7	549.0	611.8	663.5	678.6
60°	474.2	505.2	569.6	619.0	634.9
62.5°	424.8	461.4	528.3	576.8	588.7
65°	380.3	417.7	482.9	531.5	545.0
67.5°	333.4	373.9	439.2	483.7	496.4
70°	288.8	331.0	393.8	435.2	440.8
72.5°	241.1	284.0	347.7	373.9	373.9
75°	198.1	241.9	300.7	305.5	301.5
77.5°	151.2	199.7	237.9	228.3	218.8
80°	109.0	156.7	174.2	156.7	144.0
82.5°	73.2	113.8	105.0	83.5	74.0
85°	40.6	60.5	41.4	23.1	16.7
87.5°	15.1	13.5	4.0	4.0	4.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)