

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: P308854

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-CP187-W2A-U-3500K**

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: P308854
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-44HE-UNV-L82765-CP187-W2A-U-3500K
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.187" 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: 3637.0 lumens
Efficiency: N/A
Efficacy: 97.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

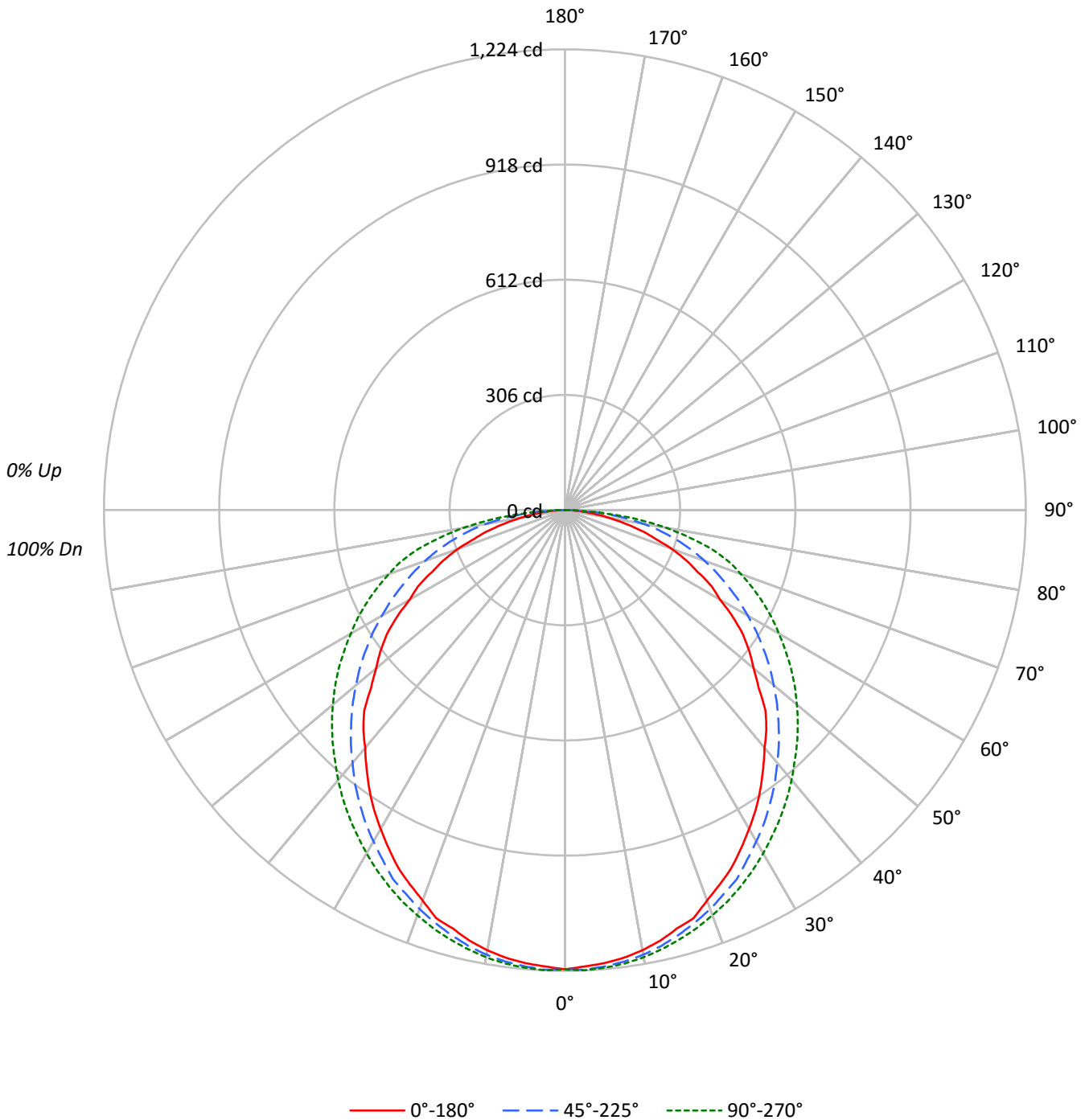
Input Watts (W): 37.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	100	96	92	96	93	90	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	51	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3284	3284	3284
5°	3263	3287	3296
10°	3244	3277	3296
15°	3205	3254	3288
20°	3160	3230	3280
25°	3111	3210	3277
30°	3040	3159	3272
35°	2974	3122	3277
40°	2898	3082	3290
45°	2868	3054	3319
50°	2740	3031	3367
55°	2711	3022	3438
60°	2558	3017	3532
65°	2483	3037	3691
70°	2383	3109	3917
75°	2172	3203	4217
80°	1861	3318	4262
85°	1504	3171	3656



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.5	3.2
10°-20°	329.4	9.1
20°-30°	495.7	13.6
30°-40°	595.0	16.4
40°-50°	621.9	17.1
50°-60°	579.6	15.9
60°-70°	475.3	13.1
70°-80°	320.3	8.8
80°-90°	104.3	2.9
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°	940.6	25.9
0°-40°	1535.6	42.2
0°-60°	2737.0	75.3
0°-90°	3637.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3637.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1220	1220	1220	1220	1220	
5°	1208	1212	1217	1218	1220	115
15°	1151	1158	1168	1178	1180	325
25°	1048	1055	1081	1097	1104	482
35°	905	917	950	984	997	566
45°	754	759	802	851	872	576
55°	578	588	644	705	733	512
65°	390	407	477	547	580	388
75°	209	232	308	378	406	220
85°	49	70	103	120	118	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1220.2	1220.2	1220.2	1220.2	1220.2
2.5°	1213.3	1216.8	1222.0	1223.7	1223.7
5°	1208.1	1211.5	1216.8	1218.5	1220.2
7.5°	1199.4	1202.8	1209.8	1213.3	1215.0
10°	1187.2	1190.7	1199.4	1204.6	1206.3
12.5°	1171.5	1175.0	1185.4	1192.4	1194.1
15°	1150.6	1157.6	1168.0	1178.5	1180.2
17.5°	1136.7	1134.9	1148.9	1161.1	1164.5
20°	1103.6	1112.3	1128.0	1141.9	1145.4
22.5°	1075.8	1082.7	1103.6	1119.3	1126.2
25°	1047.9	1054.9	1081.0	1096.7	1103.6
27.5°	1013.1	1023.5	1047.9	1070.5	1079.2
30°	978.3	988.7	1016.6	1042.7	1053.1
32.5°	943.5	955.7	985.2	1013.1	1025.3
35°	905.2	917.4	950.4	983.5	997.4
37.5°	865.1	880.8	915.6	952.2	967.8
40°	825.1	840.8	877.3	919.1	936.5
42.5°	792.0	799.0	840.8	886.0	903.4
45°	753.7	759.0	802.5	851.2	872.1
47.5°	698.0	717.2	764.2	818.1	839.0
50°	654.5	675.4	724.1	781.6	804.2
52.5°	618.0	631.9	685.8	743.3	769.4
55°	577.9	588.4	644.1	705.0	732.8
57.5°	529.2	548.3	604.0	666.7	694.5
60°	475.2	499.6	560.5	628.4	656.3
62.5°	440.4	454.3	520.5	588.4	619.7
65°	389.9	407.3	477.0	546.6	579.7
67.5°	348.1	365.6	436.9	506.5	539.6
70°	302.9	320.3	395.1	464.8	497.8
72.5°	250.7	275.0	353.4	423.0	457.8
75°	208.9	231.5	308.1	377.7	405.6
77.5°	161.9	191.5	262.8	320.3	341.2
80°	120.1	149.7	214.1	255.9	275.0
82.5°	81.8	111.4	160.1	191.5	201.9
85°	48.7	69.6	102.7	120.1	118.4
87.5°	22.6	29.6	41.8	41.8	40.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)