

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: P312282

Luminaire Tested: **14FCZ2-44-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: P312282
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-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: 4083.0 lumens
Efficiency: N/A
Efficacy: 104.2 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

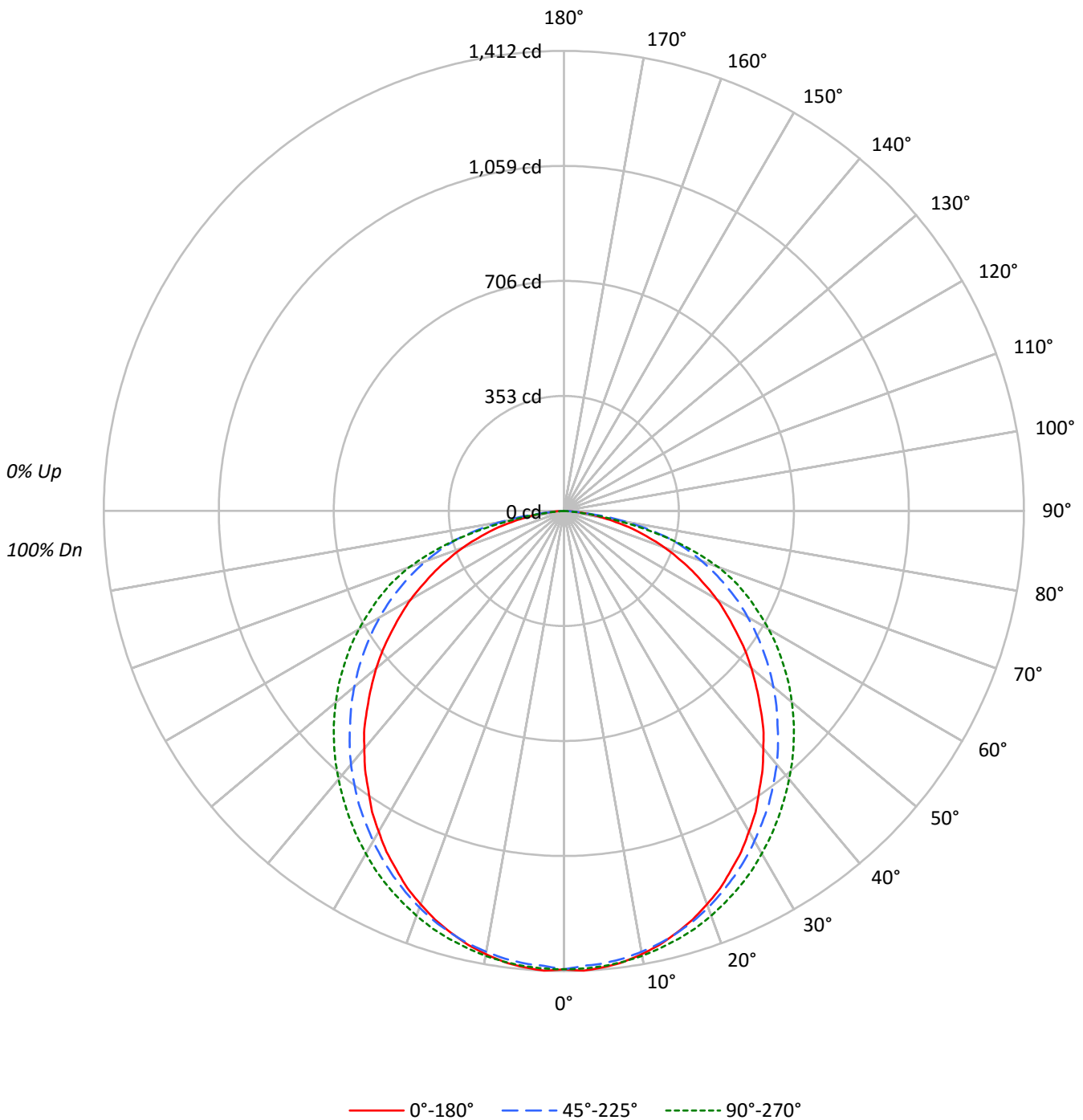
Input Watts (W): 39.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3785	3785	3785
5°	3797	3765	3787
10°	3774	3754	3789
15°	3733	3736	3787
20°	3679	3710	3785
25°	3609	3674	3782
30°	3530	3635	3774
35°	3437	3604	3771
40°	3345	3569	3777
45°	3243	3530	3797
50°	3148	3514	3823
55°	3028	3502	3857
60°	2920	3508	3910
65°	2771	3519	3971
70°	2600	3546	3969
75°	2357	3578	3588
80°	1932	3090	2554
85°	1433	1460	590



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.1	3.3
10°-20°	380.2	9.3
20°-30°	572.8	14.0
30°-40°	687.3	16.8
40°-50°	716.4	17.5
50°-60°	663.2	16.2
60°-70°	535.8	13.1
70°-80°	326.7	8.0
80°-90°	67.5	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°	1086.1	26.6
0°-40°	1773.4	43.4
0°-60°	3153.0	77.2
0°-90°	4083.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4083.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1407	1407	1407	1407	1407	
5°	1406	1402	1394	1404	1402	133
15°	1340	1341	1341	1359	1359	378
25°	1215	1223	1237	1268	1274	560
35°	1046	1062	1097	1137	1148	655
45°	852	878	928	980	998	659
55°	646	679	746	805	822	578
65°	435	478	553	608	624	430
75°	227	277	344	350	345	238
85°	46	69	47	26	19	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1406.6	1406.6	1406.6	1406.6	1406.6
2.5°	1412.1	1407.5	1397.5	1407.5	1405.7
5°	1405.7	1402.1	1393.9	1403.9	1402.1
7.5°	1396.6	1393.0	1385.7	1397.5	1395.7
10°	1381.1	1379.3	1373.8	1387.5	1386.6
12.5°	1362.9	1362.0	1359.3	1374.7	1373.8
15°	1340.1	1341.1	1341.1	1359.3	1359.3
17.5°	1314.7	1316.5	1320.1	1340.1	1342.9
20°	1284.6	1288.3	1295.5	1318.3	1321.9
22.5°	1253.7	1256.4	1267.3	1294.6	1298.3
25°	1215.4	1222.7	1237.3	1268.2	1273.7
27.5°	1179.0	1185.4	1205.4	1237.3	1246.4
30°	1136.2	1146.2	1169.9	1204.5	1214.5
32.5°	1095.2	1106.2	1133.5	1173.5	1182.6
35°	1046.1	1062.5	1097.1	1137.1	1148.0
37.5°	1001.5	1016.9	1056.1	1099.8	1112.5
40°	952.3	971.4	1016.0	1062.5	1075.2
42.5°	906.8	925.0	973.2	1020.6	1037.9
45°	852.2	877.6	927.7	979.6	997.8
47.5°	802.1	827.6	884.9	940.5	956.9
50°	752.0	779.3	839.4	896.8	913.2
52.5°	700.1	729.3	793.9	851.2	870.4
55°	645.5	679.2	746.5	804.8	822.1
57.5°	593.6	628.2	700.1	759.3	776.6
60°	542.6	578.1	651.9	708.3	726.5
62.5°	486.2	528.0	604.5	660.1	673.7
65°	435.2	478.0	552.6	608.2	623.6
67.5°	381.5	427.9	502.6	553.5	568.1
70°	330.5	378.7	450.7	498.0	504.4
72.5°	275.9	325.0	397.9	427.9	427.9
75°	226.7	276.8	344.1	349.6	345.1
77.5°	173.0	228.5	272.2	261.3	250.4
80°	124.7	179.4	199.4	179.4	164.8
82.5°	83.8	130.2	120.2	95.6	84.7
85°	46.4	69.2	47.3	26.4	19.1
87.5°	17.3	15.5	4.6	4.6	4.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)