

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: P307777

Luminaire Tested: **14FCZ2-44-UNV-L82765-CP187-W2A-U-5000K**

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: P307777
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-5000K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.187" POLYCARB SHEET
Light Source: (168) 5000K 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: 4004.0 lumens
Efficiency: N/A
Efficacy: 102.1 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

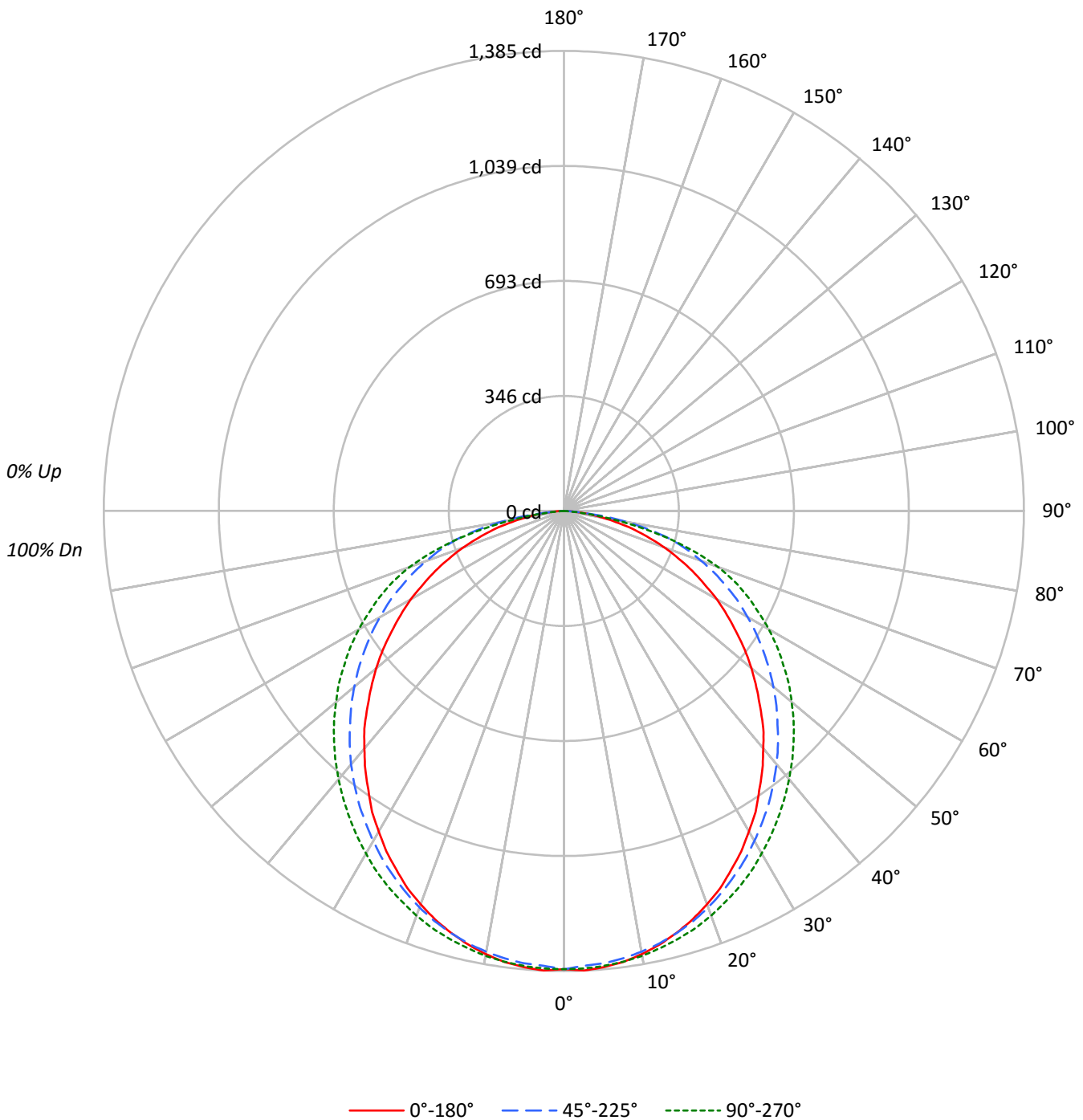
Input Watts (W): 39.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3712	3712	3712
5°	3724	3692	3714
10°	3701	3681	3715
15°	3661	3664	3714
20°	3608	3638	3712
25°	3539	3602	3708
30°	3462	3565	3701
35°	3370	3534	3698
40°	3281	3500	3704
45°	3180	3462	3724
50°	3087	3446	3749
55°	2970	3435	3782
60°	2864	3441	3835
65°	2718	3450	3894
70°	2550	3477	3891
75°	2311	3509	3518
80°	1895	3030	2504
85°	1405	1433	577



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.5	3.3
10°-20°	372.9	9.3
20°-30°	561.7	14.0
30°-40°	674.0	16.8
40°-50°	702.5	17.5
50°-60°	650.4	16.2
60°-70°	525.5	13.1
70°-80°	320.4	8.0
80°-90°	66.2	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°	1065.1	26.6
0°-40°	1739.1	43.4
0°-60°	3092.0	77.2
0°-90°	4004.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4004.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1379	1379	1379	1379	1379	
5°	1378	1375	1367	1377	1375	131
15°	1314	1315	1315	1333	1333	370
25°	1192	1199	1213	1244	1249	549
35°	1026	1042	1076	1115	1126	643
45°	836	861	910	961	978	646
55°	633	666	732	789	806	567
65°	427	469	542	596	612	422
75°	222	271	338	343	338	233
85°	46	68	46	26	19	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1379.4	1379.4	1379.4	1379.4	1379.4
2.5°	1384.7	1380.3	1370.5	1380.3	1378.5
5°	1378.5	1374.9	1366.9	1376.7	1374.9
7.5°	1369.6	1366.0	1358.9	1370.5	1368.7
10°	1354.4	1352.6	1347.2	1360.6	1359.7
12.5°	1336.5	1335.6	1333.0	1348.1	1347.2
15°	1314.2	1315.1	1315.1	1333.0	1333.0
17.5°	1289.2	1291.0	1294.6	1314.2	1316.9
20°	1259.8	1263.3	1270.5	1292.8	1296.4
22.5°	1229.4	1232.1	1242.8	1269.6	1273.1
25°	1191.9	1199.0	1213.3	1243.7	1249.0
27.5°	1156.2	1162.4	1182.1	1213.3	1222.3
30°	1114.2	1124.0	1147.3	1181.2	1191.0
32.5°	1074.1	1084.8	1111.5	1150.8	1159.8
35°	1025.8	1041.9	1075.8	1115.1	1125.8
37.5°	982.1	997.3	1035.7	1078.5	1091.0
40°	933.9	952.6	996.4	1041.9	1054.4
42.5°	889.2	907.1	954.4	1000.8	1017.8
45°	835.7	860.7	909.8	960.7	978.5
47.5°	786.6	811.6	867.8	922.3	938.3
50°	737.5	764.2	823.2	879.4	895.5
52.5°	686.6	715.1	778.5	834.8	853.5
55°	633.0	666.0	732.1	789.2	806.2
57.5°	582.1	616.0	686.6	744.6	761.6
60°	532.1	566.9	639.3	694.6	712.5
62.5°	476.8	517.8	592.8	647.3	660.7
65°	426.8	468.7	541.9	596.4	611.6
67.5°	374.1	419.6	492.8	542.8	557.1
70°	324.1	371.4	441.9	488.4	494.6
72.5°	270.5	318.7	390.2	419.6	419.6
75°	222.3	271.4	337.5	342.8	338.4
77.5°	169.6	224.1	267.0	256.2	245.5
80°	122.3	175.9	195.5	175.9	161.6
82.5°	82.1	127.7	117.9	93.7	83.0
85°	45.5	67.9	46.4	25.9	18.7
87.5°	17.0	15.2	4.5	4.5	4.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)