

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: P308047

Luminaire Tested: **14FCZ2-44-UNV-L82765-S-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: P308047
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
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-S-CP187-W2A-U-5000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH 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: 4046.0 lumens
Efficiency: N/A
Efficacy: 103.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

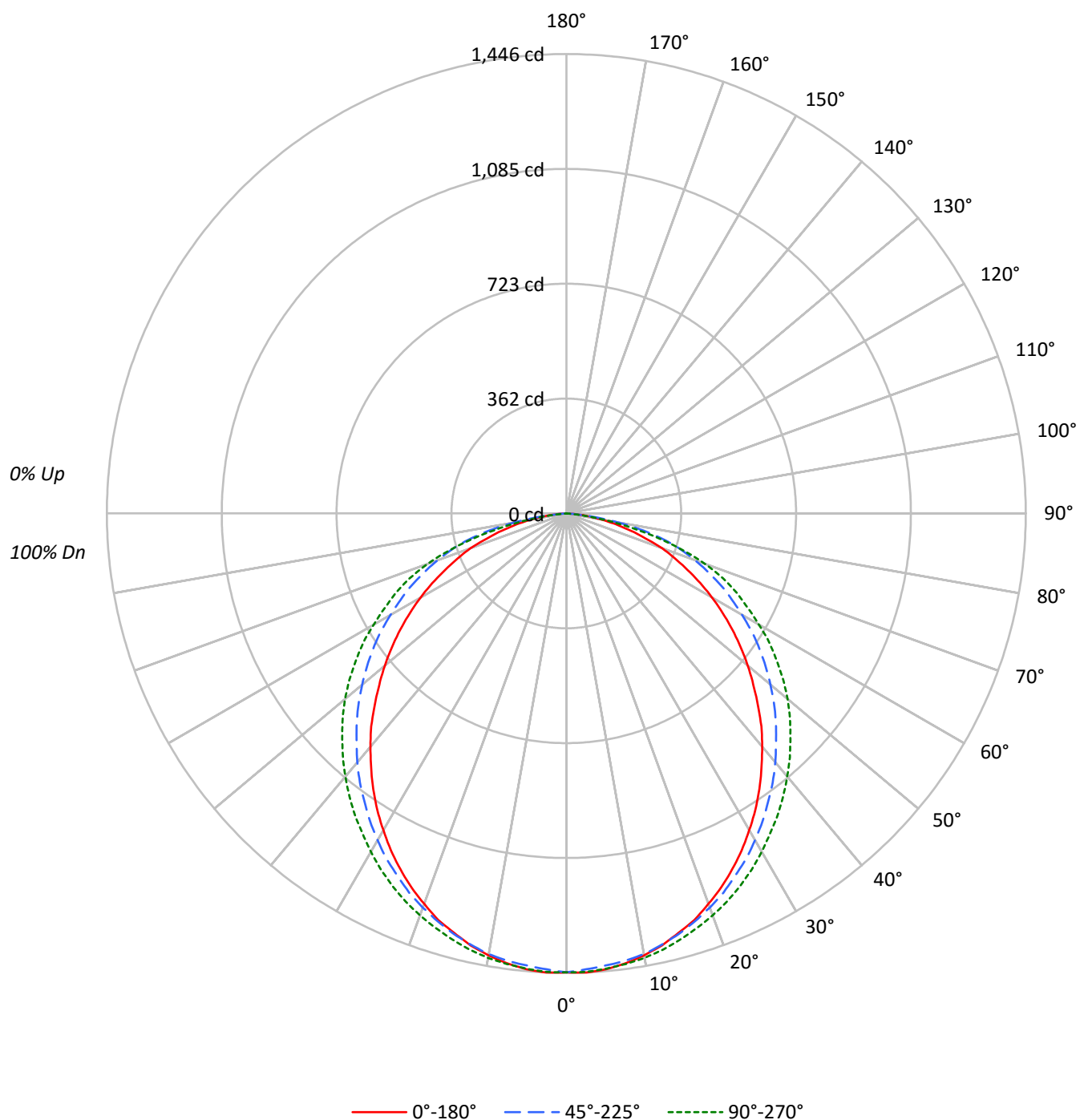
Input Watts (W): 39.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	109	104	100	96	106	102	98	94	97	94	91		94	91	89		84
2	99	90	84	78	96	89	82	77	85	80	75		82	77	73		70
3	90	79	71	65	87	78	70	64	75	68	63		72	66	62		58
4	82	70	61	55	80	69	61	54	66	59	53		64	58	53		50
5	76	63	54	47	74	62	53	47	59	52	46		57	51	46		43
6	70	56	47	41	68	55	47	41	54	46	40		52	45	40		38
7	65	51	42	36	63	50	42	36	49	41	36		47	41	35		33
8	60	47	38	32	59	46	38	32	45	37	32		43	37	32		30
9	56	43	35	29	55	42	34	29	41	34	29		40	33	29		27
10	53	40	32	26	52	39	31	26	38	31	26		37	31	26		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3887	3887	3887
5°	3891	3858	3885
10°	3859	3848	3881
15°	3806	3817	3867
20°	3745	3780	3855
25°	3669	3735	3842
30°	3578	3690	3821
35°	3480	3638	3809
40°	3368	3594	3798
45°	3245	3550	3794
50°	3124	3510	3804
55°	2993	3482	3793
60°	2850	3433	3768
65°	2683	3423	3768
70°	2526	3393	3662
75°	2190	3317	3129
80°	1771	2673	2083
85°	1176	929	621



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.4	3.4
10°-20°	388.1	9.6
20°-30°	582.2	14.4
30°-40°	694.5	17.2
40°-50°	717.9	17.7
50°-60°	655.5	16.2
60°-70°	515.8	12.7
70°-80°	300.3	7.4
80°-90°	55.3	1.4
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°	1106.7	27.4
0°-40°	1801.1	44.5
0°-60°	3174.6	78.5
0°-90°	4046.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4046.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1444	1444	1444	1444	1444	
5°	1440	1436	1428	1440	1438	137
15°	1366	1368	1370	1388	1388	385
25°	1236	1242	1258	1288	1294	569
35°	1059	1073	1107	1150	1160	662
45°	853	881	933	985	997	658
55°	638	672	742	796	808	570
65°	421	465	538	580	592	418
75°	211	261	319	313	301	224
85°	38	54	30	24	20	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1444.4	1444.4	1444.4	1444.4	1444.4
2.5°	1446.4	1442.3	1436.3	1446.4	1444.4
5°	1440.3	1436.3	1428.3	1440.3	1438.3
7.5°	1428.3	1424.3	1420.3	1432.3	1430.3
10°	1412.3	1410.3	1408.2	1422.3	1420.3
12.5°	1392.2	1392.2	1390.2	1406.2	1406.2
15°	1366.1	1368.1	1370.1	1388.2	1388.2
17.5°	1342.0	1340.0	1346.1	1366.1	1368.1
20°	1307.9	1312.0	1320.0	1344.1	1346.1
22.5°	1273.8	1277.9	1291.9	1316.0	1322.0
25°	1235.7	1241.7	1257.8	1287.9	1293.9
27.5°	1195.6	1203.6	1225.7	1257.8	1263.8
30°	1151.5	1163.5	1187.6	1223.7	1229.7
32.5°	1107.3	1119.4	1149.5	1185.6	1193.6
35°	1059.2	1073.2	1107.3	1149.5	1159.5
37.5°	1009.0	1027.1	1067.2	1109.3	1121.4
40°	958.9	979.0	1023.1	1067.2	1081.3
42.5°	908.7	928.8	976.9	1027.1	1041.1
45°	852.6	880.7	932.8	985.0	997.0
47.5°	798.4	828.5	886.7	938.8	954.9
50°	746.3	776.3	838.5	892.7	908.7
52.5°	692.1	724.2	790.4	846.6	860.6
55°	637.9	672.0	742.2	796.4	808.4
57.5°	583.8	619.9	692.1	744.2	758.3
60°	529.6	567.7	637.9	690.1	700.1
62.5°	475.4	515.6	587.8	633.9	643.9
65°	421.3	465.4	537.6	579.7	591.8
67.5°	369.1	413.2	483.5	523.6	533.6
70°	321.0	361.1	431.3	461.4	465.4
72.5°	260.8	310.9	379.1	395.2	385.2
75°	210.6	260.8	319.0	312.9	300.9
77.5°	160.5	210.6	248.8	228.7	212.6
80°	114.3	164.5	172.5	142.4	134.4
82.5°	74.2	114.3	96.3	74.2	60.2
85°	38.1	54.2	30.1	24.1	20.1
87.5°	12.0	8.0	4.0	4.0	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)