

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: P308046

Luminaire Tested: **14FCZ2-44-UNV-L82765-S-CP187-W2A-U-4500K**

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: P308046
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-4500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.187" POLYCARB SHEET
Light Source: (168) 4500K 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: 3992.0 lumens
Efficiency: N/A
Efficacy: 102.4 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

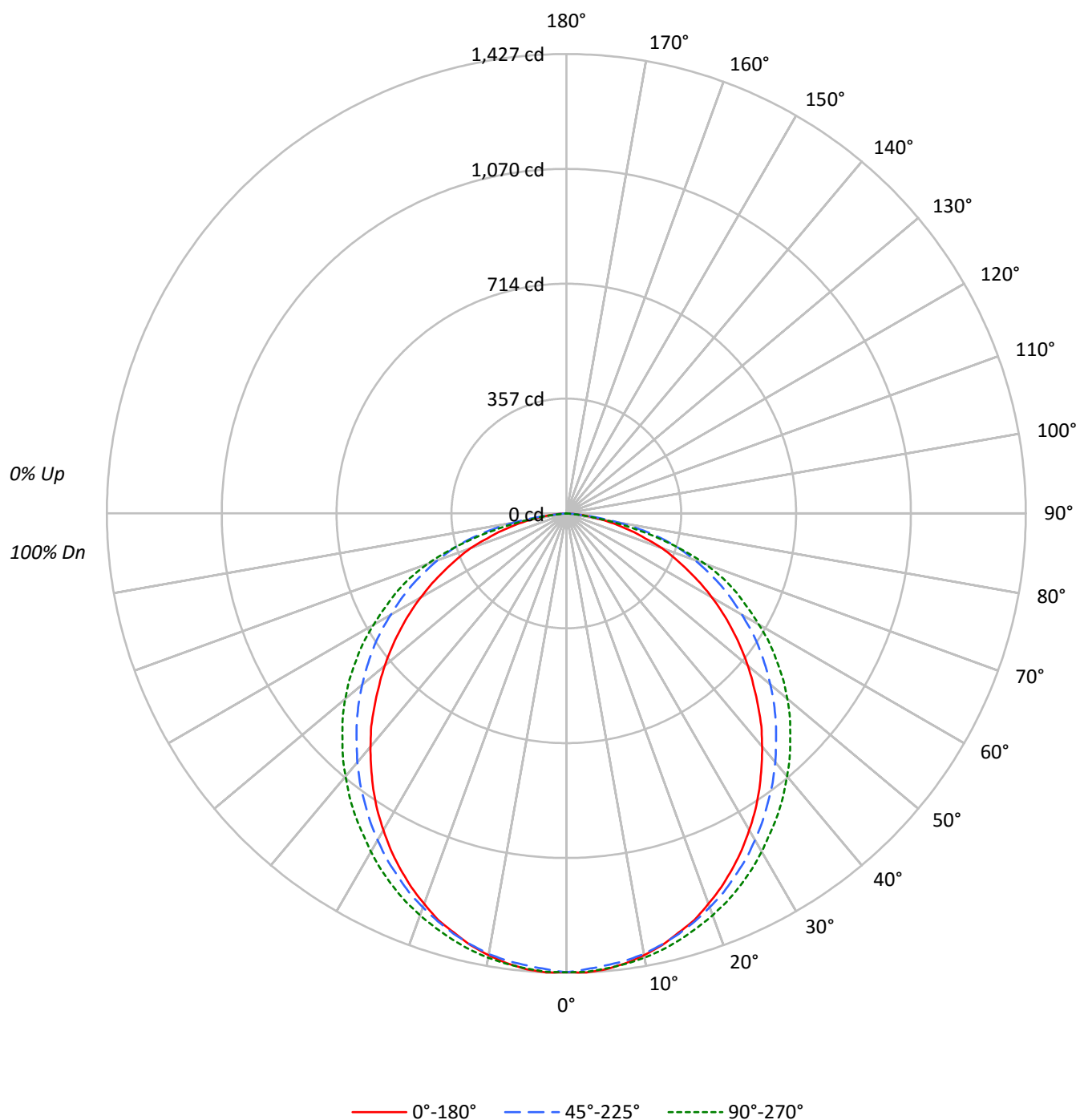
Input Watts (W): 39
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3835	3835	3835
5°	3839	3807	3833
10°	3807	3797	3829
15°	3755	3766	3816
20°	3696	3730	3803
25°	3620	3685	3790
30°	3530	3641	3770
35°	3433	3589	3758
40°	3323	3546	3747
45°	3201	3503	3744
50°	3082	3463	3754
55°	2953	3436	3742
60°	2812	3387	3718
65°	2646	3377	3718
70°	2492	3348	3613
75°	2161	3272	3087
80°	1748	2638	2055
85°	1161	917	611



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.6	3.4
10°-20°	382.9	9.6
20°-30°	574.4	14.4
30°-40°	685.2	17.2
40°-50°	708.4	17.7
50°-60°	646.7	16.2
60°-70°	508.9	12.7
70°-80°	296.3	7.4
80°-90°	54.6	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°	1091.9	27.4
0°-40°	1777.1	44.5
0°-60°	3132.2	78.5
0°-90°	3992.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3992.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1425	1425	1425	1425	1425	
5°	1421	1417	1409	1421	1419	135
15°	1348	1350	1352	1370	1370	380
25°	1219	1225	1241	1271	1277	561
35°	1045	1059	1093	1134	1144	653
45°	841	869	920	972	984	650
55°	629	663	732	786	798	563
65°	416	459	530	572	584	413
75°	208	257	315	309	297	221
85°	38	53	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°	1425.1	1425.1	1425.1	1425.1	1425.1
2.5°	1427.1	1423.1	1417.2	1427.1	1425.1
5°	1421.1	1417.2	1409.2	1421.1	1419.1
7.5°	1409.2	1405.3	1401.3	1413.2	1411.2
10°	1393.4	1391.4	1389.5	1403.3	1401.3
12.5°	1373.6	1373.6	1371.6	1387.5	1387.5
15°	1347.9	1349.9	1351.8	1369.7	1369.7
17.5°	1324.1	1322.2	1328.1	1347.9	1349.9
20°	1290.5	1294.4	1302.4	1326.1	1328.1
22.5°	1256.8	1260.8	1274.7	1298.4	1304.3
25°	1219.2	1225.2	1241.0	1270.7	1276.6
27.5°	1179.6	1187.6	1209.3	1241.0	1246.9
30°	1136.1	1148.0	1171.7	1207.4	1213.3
32.5°	1092.6	1104.4	1134.1	1169.8	1177.7
35°	1045.1	1058.9	1092.6	1134.1	1144.0
37.5°	995.6	1013.4	1053.0	1094.5	1106.4
40°	946.1	965.9	1009.4	1053.0	1066.8
42.5°	896.6	916.4	963.9	1013.4	1027.2
45°	841.2	868.9	920.4	971.8	983.7
47.5°	787.8	817.4	874.8	926.3	942.1
50°	736.3	766.0	827.3	880.8	896.6
52.5°	682.8	714.5	779.8	835.3	849.1
55°	629.4	663.1	732.3	785.8	797.6
57.5°	576.0	611.6	682.8	734.3	748.2
60°	522.5	560.1	629.4	680.9	690.8
62.5°	469.1	508.7	579.9	625.5	635.3
65°	415.6	459.2	530.4	572.0	583.9
67.5°	364.2	407.7	477.0	516.6	526.5
70°	316.7	356.3	425.5	455.2	459.2
72.5°	257.3	306.8	374.1	389.9	380.0
75°	207.8	257.3	314.7	308.8	296.9
77.5°	158.3	207.8	245.4	225.6	209.8
80°	112.8	162.3	170.2	140.5	132.6
82.5°	73.2	112.8	95.0	73.2	59.4
85°	37.6	53.4	29.7	23.8	19.8
87.5°	11.9	7.9	4.0	4.0	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)