

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: P307013

Luminaire Tested: **14FCZ2-20-UNV-L82765-HRP-CP187-W2A-U-5500K**

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: P307013
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-20-UNV-L82765-HRP-CP187-W2A-U-5500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.187"
POLYCARB SHEET
Light Source: (168) 5500K 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: 1483.0 lumens
Efficiency: N/A
Efficacy: 87.2 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

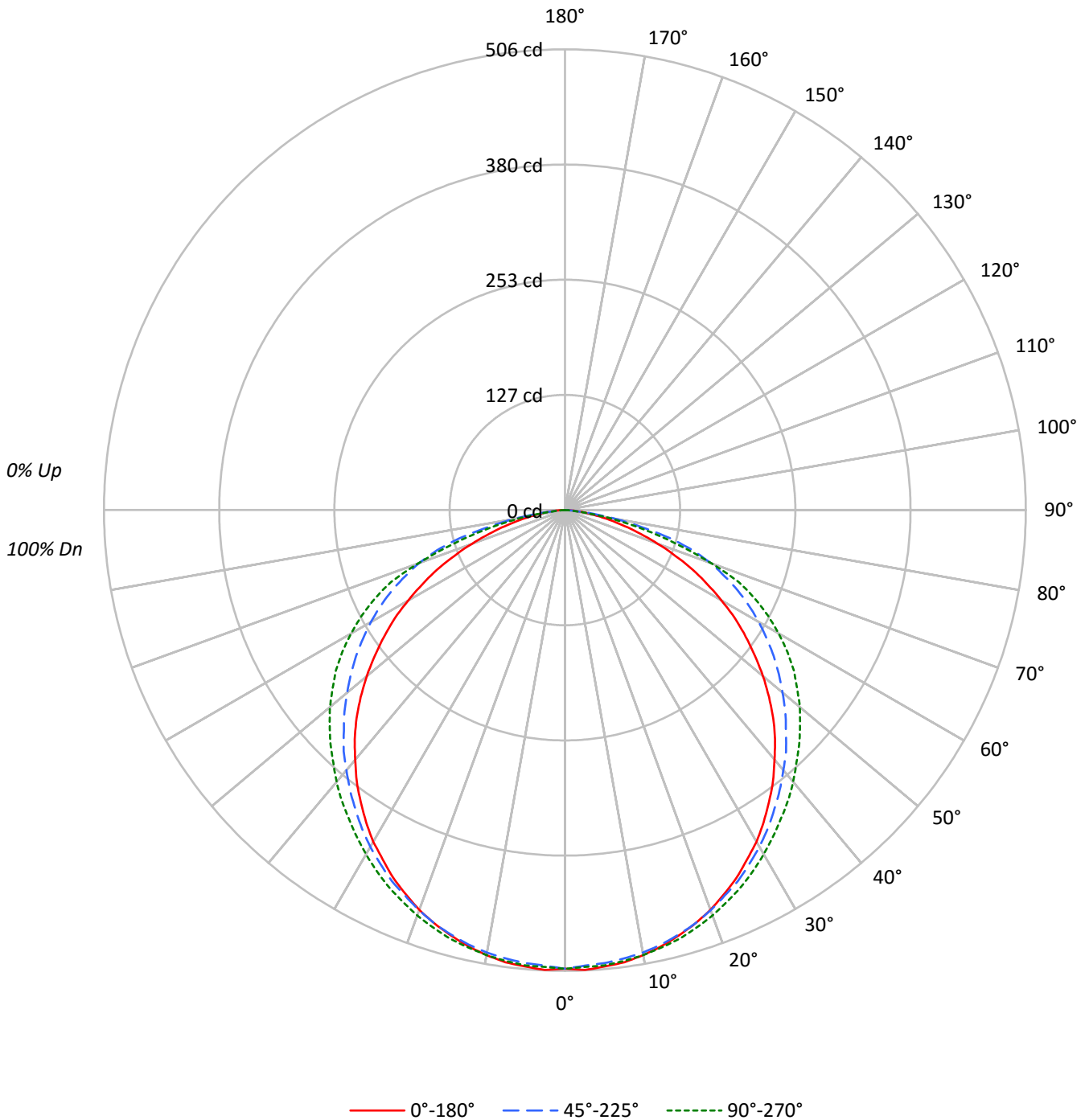
Input Watts (W): 17
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	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	38	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1355	1355	1355
5°	1359	1349	1355
10°	1356	1348	1356
15°	1347	1344	1358
20°	1338	1339	1357
25°	1324	1335	1357
30°	1307	1327	1356
35°	1284	1317	1359
40°	1258	1311	1370
45°	1231	1306	1384
50°	1189	1306	1410
55°	1138	1313	1439
60°	1069	1323	1458
65°	986	1336	1467
70°	858	1339	1350
75°	708	1246	1091
80°	556	896	730
85°	432	346	173



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.7	3.2
10°-20°	136.8	9.2
20°-30°	207.8	14.0
30°-40°	251.7	17.0
40°-50°	265.3	17.9
50°-60°	247.7	16.7
60°-70°	197.9	13.3
70°-80°	108.9	7.3
80°-90°	19.2	1.3
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°	392.3	26.5
0°-40°	644.0	43.4
0°-60°	1156.9	78.0
0°-90°	1483.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1483.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	504	504	504	504	504	
5°	503	502	499	503	502	48
15°	484	484	483	487	487	137
25°	446	447	450	456	457	205
35°	391	394	401	411	414	245
45°	324	330	343	359	364	249
55°	242	255	280	299	307	216
65°	155	174	210	227	230	152
75°	68	98	120	108	105	73
85°	14	18	11	7	6	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	503.6	503.6	503.6	503.6	503.6
2.5°	505.5	504.1	500.8	503.6	502.2
5°	503.2	501.8	499.4	502.7	501.8
7.5°	500.8	499.0	496.6	500.4	499.4
10°	496.2	494.8	493.4	496.6	496.2
12.5°	490.6	490.1	488.7	492.4	492.0
15°	483.6	483.6	482.6	487.3	487.3
17.5°	476.1	475.7	476.1	481.3	480.8
20°	467.3	467.3	467.7	473.8	473.8
22.5°	456.5	457.0	458.4	465.9	465.4
25°	445.8	446.7	449.5	456.1	457.0
27.5°	432.8	435.1	438.3	446.3	447.2
30°	420.6	422.0	427.2	434.6	436.5
32.5°	406.2	409.0	414.6	423.0	425.3
35°	390.8	394.5	401.0	411.3	413.6
37.5°	375.4	378.7	387.5	398.2	402.4
40°	358.1	363.7	373.1	385.2	389.9
42.5°	341.4	346.9	359.5	372.1	376.3
45°	323.6	329.7	343.2	358.6	363.7
47.5°	304.0	311.0	328.3	344.6	350.2
50°	284.0	292.9	312.0	330.2	336.7
52.5°	263.0	274.2	296.1	315.2	321.3
55°	242.5	254.6	279.8	299.4	306.8
57.5°	221.5	234.6	263.0	285.4	289.6
60°	198.7	214.5	245.8	265.3	270.9
62.5°	176.3	194.5	228.0	246.7	251.4
65°	154.8	174.4	209.8	227.1	230.4
67.5°	131.5	154.8	189.8	205.7	206.6
70°	109.1	136.2	170.2	177.7	171.6
72.5°	87.2	116.1	147.4	141.3	136.2
75°	68.1	97.5	119.8	107.7	104.9
77.5°	50.4	79.7	85.8	79.3	74.1
80°	35.9	63.0	57.8	49.4	47.1
82.5°	24.7	39.6	31.7	24.7	21.5
85°	14.0	17.7	11.2	7.0	5.6
87.5°	6.1	4.2	2.3	1.9	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)