

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: P307190

Luminaire Tested: **14FCZ2-39-UNV-L82765-HRP-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: P307190
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: 14FCZ2-39-UNV-L82765-HRP-CP187-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. 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: 2634.0 lumens
Efficiency: N/A
Efficacy: 78.2 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

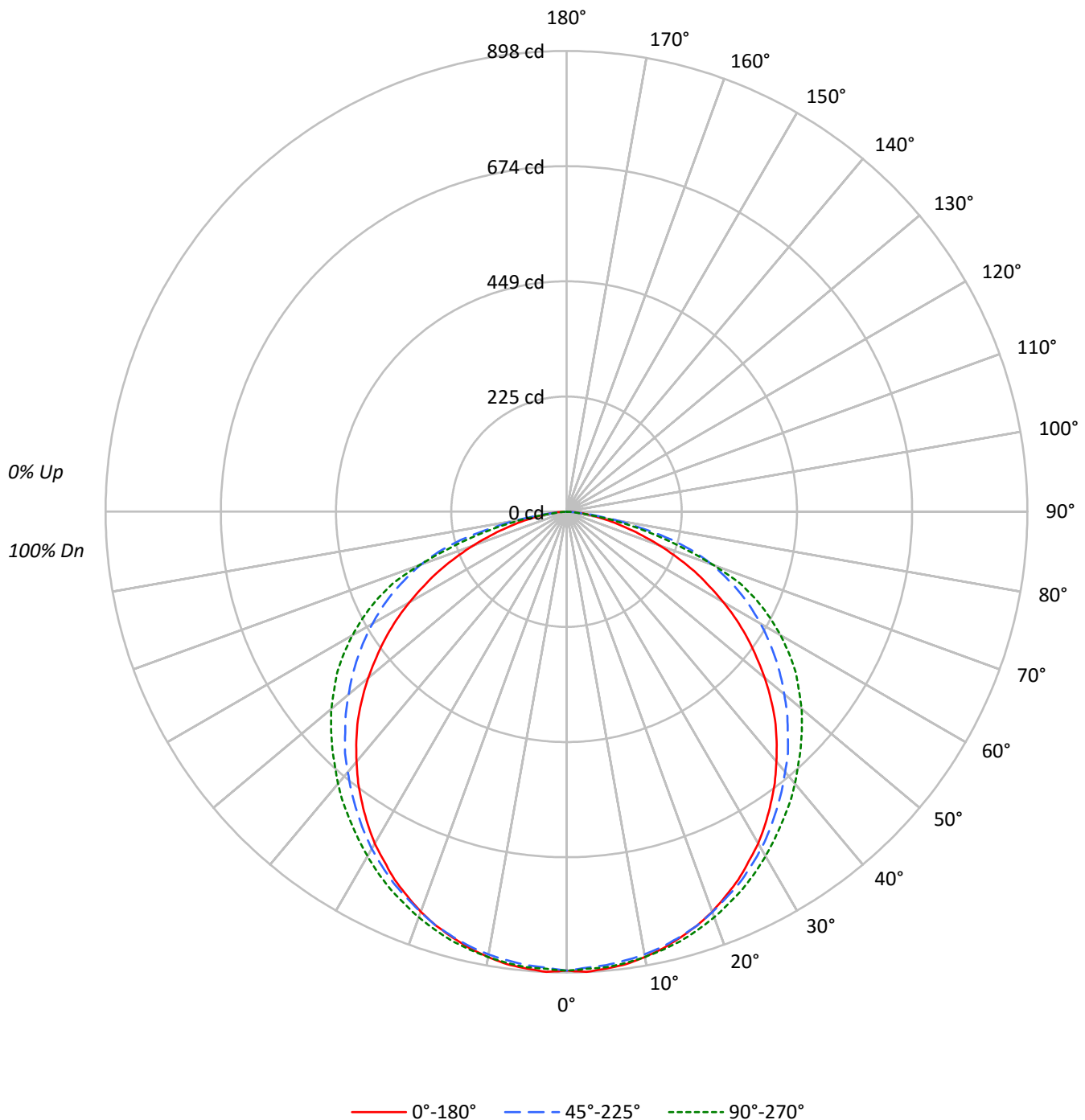
Input Watts (W): 33.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P307190

CATALOG NUMBER: 14FCZ2-39-UNV-L82765-HRP-CP187-W2A-U-4000K

Luminous Intensity Polar Plot





TEST NUMBER: P307190

CATALOG NUMBER: 14FCZ2-39-UNV-L82765-HRP-CP187-W2A-U-4000K

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		93	91	88		84
2	99	90	83	78	96	88	82	77	85	79	75		82	77	73		69
3	90	79	71	64	87	77	70	64	74	68	62		72	66	61		58
4	82	70	61	54	80	68	60	54	66	59	53		64	57	52		49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		42
6	69	56	47	40	68	55	46	40	53	45	40		51	45	39		37
7	64	51	42	36	63	50	41	35	48	41	35		47	40	35		33
8	60	46	38	32	58	45	37	32	44	37	31		43	36	31		29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		26
10	52	39	31	26	51	38	31	26	37	30	26		37	30	25		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2407	2407	2407
5°	2414	2396	2407
10°	2408	2394	2408
15°	2393	2388	2411
20°	2377	2379	2410
25°	2351	2371	2410
30°	2321	2357	2409
35°	2280	2340	2414
40°	2235	2328	2432
45°	2187	2320	2458
50°	2112	2320	2503
55°	2021	2332	2557
60°	1899	2349	2590
65°	1751	2373	2606
70°	1525	2378	2398
75°	1257	2214	1938
80°	989	1592	1297
85°	766	614	306



TEST NUMBER: P307190

CATALOG NUMBER: 14FCZ2-39-UNV-L82765-HRP-CP187-W2A-U-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.7	3.2
10°-20°	243.0	9.2
20°-30°	369.0	14.0
30°-40°	447.1	17.0
40°-50°	471.2	17.9
50°-60°	439.9	16.7
60°-70°	351.5	13.3
70°-80°	193.4	7.3
80°-90°	34.2	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°	696.7	26.5
0°-40°	1143.8	43.4
0°-60°	2054.9	78.0
0°-90°	2634.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2634.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	894	894	894	894	894	
5°	894	891	887	893	891	85
15°	859	859	857	866	866	242
25°	792	794	798	810	812	365
35°	694	701	712	730	735	434
45°	575	586	610	637	646	442
55°	431	452	497	532	545	384
65°	275	310	373	403	409	271
75°	121	173	213	191	186	130
85°	25	32	20	12	10	30
90°	0	0	0	0	0	



TEST NUMBER: P307190

CATALOG NUMBER: 14FCZ2-39-UNV-L82765-HRP-CP187-W2A-U-4000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	894.5	894.5	894.5	894.5	894.5
2.5°	897.8	895.3	889.6	894.5	892.0
5°	893.7	891.2	887.1	892.9	891.2
7.5°	889.6	886.2	882.1	888.7	887.1
10°	881.3	878.8	876.3	882.1	881.3
12.5°	871.3	870.5	868.0	874.6	873.8
15°	858.9	858.9	857.2	865.5	865.5
17.5°	845.7	844.8	845.7	854.8	853.9
20°	829.9	829.9	830.7	841.5	841.5
22.5°	810.9	811.7	814.2	827.4	826.6
25°	791.8	793.5	798.4	810.0	811.7
27.5°	768.6	772.8	778.6	792.6	794.3
30°	747.1	749.6	758.7	771.9	775.3
32.5°	721.4	726.4	736.3	751.2	755.4
35°	694.1	700.7	712.3	730.5	734.7
37.5°	666.7	672.5	688.3	707.3	714.8
40°	636.1	646.0	662.6	684.1	692.4
42.5°	606.3	616.2	638.6	661.0	668.4
45°	574.8	585.6	609.6	636.9	646.0
47.5°	540.0	552.4	583.1	612.1	622.0
50°	504.4	520.1	554.1	586.4	598.0
52.5°	467.1	487.0	525.9	559.9	570.7
55°	430.7	452.2	497.0	531.7	545.0
57.5°	393.4	416.6	467.1	506.9	514.3
60°	352.8	381.0	436.5	471.3	481.2
62.5°	313.1	345.4	405.0	438.1	446.4
65°	275.0	309.8	372.7	403.4	409.2
67.5°	233.6	275.0	337.1	365.3	366.9
70°	193.8	241.9	302.3	315.6	304.8
72.5°	154.9	206.2	261.7	251.0	241.9
75°	120.9	173.1	212.9	191.3	186.4
77.5°	89.5	141.6	152.4	140.8	131.7
80°	63.8	111.8	102.7	87.8	83.7
82.5°	43.9	70.4	56.3	43.9	38.1
85°	24.8	31.5	19.9	12.4	9.9
87.5°	10.8	7.5	4.1	3.3	3.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)