

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: P307196

Luminaire Tested: **14FCZ2-39-UNV-L82765-HRP-CP250-W2A-U-2700K**

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: P307196
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-CP250-W2A-U-2700K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"
POLYCARB SHEET
Light Source: (168) 2700K 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: 2402.0 lumens
Efficiency: N/A
Efficacy: 72.1 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

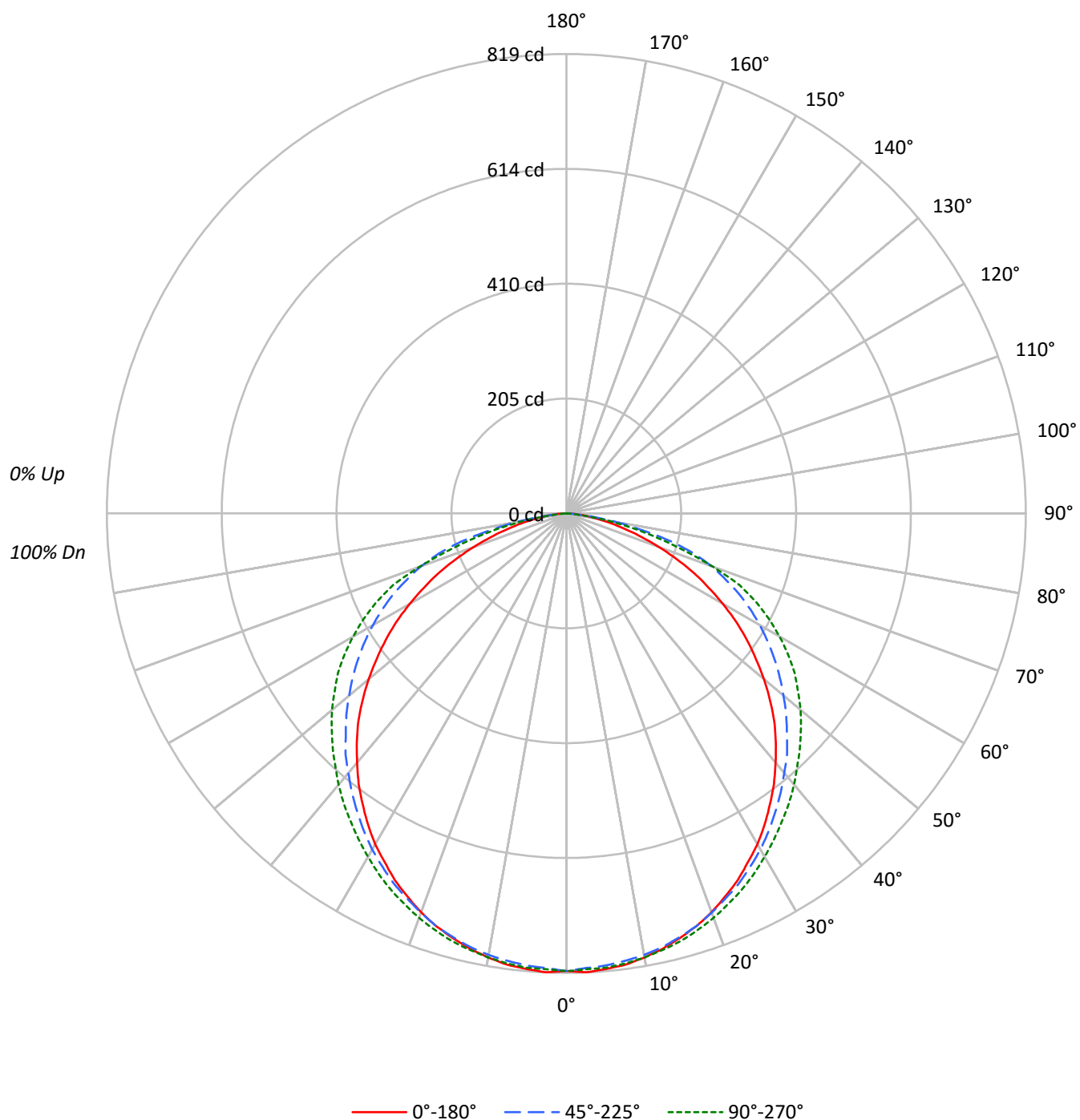
Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P307196

CATALOG NUMBER: 14FCZ2-39-UNV-L82765-HRP-CP250-W2A-U-2700K

Luminous Intensity Polar Plot





TEST NUMBER: P307196

CATALOG NUMBER: 14FCZ2-39-UNV-L82765-HRP-CP250-W2A-U-2700K

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°	2195	2195	2195
5°	2202	2185	2195
10°	2196	2184	2196
15°	2182	2178	2199
20°	2167	2170	2198
25°	2144	2162	2198
30°	2117	2150	2197
35°	2079	2134	2201
40°	2038	2122	2218
45°	1995	2116	2242
50°	1926	2115	2283
55°	1843	2126	2332
60°	1732	2142	2362
65°	1597	2164	2376
70°	1390	2169	2187
75°	1147	2018	1766
80°	902	1452	1182
85°	701	559	281



TEST NUMBER: P307196

CATALOG NUMBER: 14FCZ2-39-UNV-L82765-HRP-CP250-W2A-U-2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.2	3.2
10°-20°	221.6	9.2
20°-30°	336.5	14.0
30°-40°	407.8	17.0
40°-50°	429.7	17.9
50°-60°	401.1	16.7
60°-70°	320.6	13.3
70°-80°	176.4	7.3
80°-90°	31.1	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°	635.4	26.5
0°-40°	1043.1	43.4
0°-60°	1873.9	78.0
0°-90°	2402.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2402.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	816	816	816	816	816	
5°	815	813	809	814	813	77
15°	783	783	782	789	789	221
25°	722	724	728	739	740	332
35°	633	639	650	666	670	396
45°	524	534	556	581	589	403
55°	393	412	453	485	497	351
65°	251	282	340	368	373	247
75°	110	158	194	174	170	119
85°	23	29	18	11	9	28
90°	0	0	0	0	0	



TEST NUMBER: P307196

CATALOG NUMBER: 14FCZ2-39-UNV-L82765-HRP-CP250-W2A-U-2700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	815.7	815.7	815.7	815.7	815.7
2.5°	818.8	816.5	811.2	815.7	813.5
5°	815.0	812.7	808.9	814.2	812.7
7.5°	811.2	808.2	804.4	810.4	808.9
10°	803.6	801.4	799.1	804.4	803.6
12.5°	794.6	793.8	791.6	797.6	796.8
15°	783.3	783.3	781.7	789.3	789.3
17.5°	771.2	770.4	771.2	779.5	778.7
20°	756.8	756.8	757.6	767.4	767.4
22.5°	739.4	740.2	742.5	754.6	753.8
25°	722.1	723.6	728.1	738.7	740.2
27.5°	700.9	704.7	710.0	722.8	724.3
30°	681.3	683.6	691.9	703.9	707.0
32.5°	657.9	662.4	671.5	685.1	688.8
35°	632.9	639.0	649.6	666.2	670.0
37.5°	608.0	613.3	627.7	645.0	651.8
40°	580.1	589.1	604.2	623.9	631.4
42.5°	552.9	561.9	582.3	602.7	609.5
45°	524.2	534.0	555.9	580.8	589.1
47.5°	492.5	503.8	531.7	558.2	567.2
50°	460.0	474.3	505.3	534.8	545.3
52.5°	426.0	444.1	479.6	510.6	520.4
55°	392.8	412.4	453.2	484.9	497.0
57.5°	358.8	379.9	426.0	462.2	469.0
60°	321.8	347.4	398.0	429.8	438.8
62.5°	285.5	315.0	369.3	399.6	407.1
65°	250.8	282.5	339.9	367.8	373.1
67.5°	213.0	250.8	307.4	333.1	334.6
70°	176.7	220.5	275.7	287.8	278.0
72.5°	141.2	188.1	238.7	228.9	220.5
75°	110.3	157.9	194.1	174.5	169.9
77.5°	81.6	129.2	139.0	128.4	120.1
80°	58.2	102.0	93.7	80.1	76.3
82.5°	40.0	64.2	51.4	40.0	34.7
85°	22.7	28.7	18.1	11.3	9.1
87.5°	9.8	6.8	3.8	3.0	3.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)