

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: P307638

Luminaire Tested: **14FCZ2-29-UNV-L82765-CP187-W2A-U-3000K**

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: P307638
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-29-UNV-L82765-CP187-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE, RIBBED LENS, 0.187" POLYCARB SHEET
Light Source: (168) 3000K 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: 2475.0 lumens
Efficiency: N/A
Efficacy: 104.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

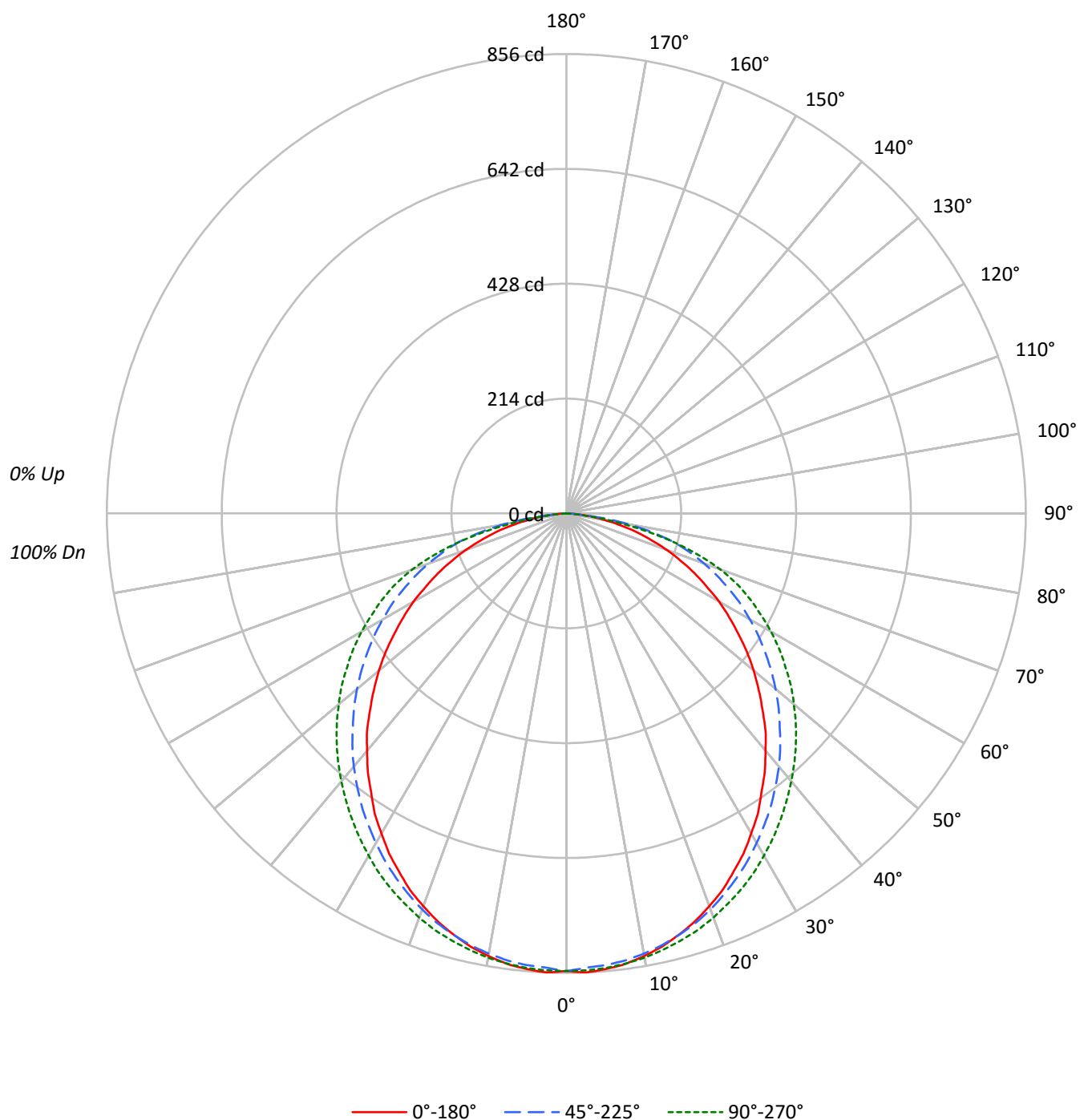
Input Watts (W): 23.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P307638

CATALOG NUMBER: 14FCZ2-29-UNV-L82765-CP187-W2A-U-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P307638

CATALOG NUMBER: 14FCZ2-29-UNV-L82765-CP187-W2A-U-3000K

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	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	109	104	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83		
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69		
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58		
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49		
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42		
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37		
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32		
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	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	39	31	26	37	30	26	37	30	25	36	30	25	24		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2294	2294	2294
5°	2302	2282	2296
10°	2288	2276	2297
15°	2263	2265	2295
20°	2230	2249	2295
25°	2188	2227	2292
30°	2140	2204	2288
35°	2083	2185	2286
40°	2028	2164	2290
45°	1966	2140	2302
50°	1908	2130	2317
55°	1836	2123	2338
60°	1770	2126	2370
65°	1680	2133	2407
70°	1576	2150	2405
75°	1429	2169	2175
80°	1172	1874	1548
85°	868	886	358



TEST NUMBER: P307638

CATALOG NUMBER: 14FCZ2-29-UNV-L82765-CP187-W2A-U-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.7	3.3
10°-20°	230.5	9.3
20°-30°	347.2	14.0
30°-40°	416.6	16.8
40°-50°	434.3	17.5
50°-60°	402.0	16.2
60°-70°	324.8	13.1
70°-80°	198.1	8.0
80°-90°	40.9	1.7
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°	658.4	26.6
0°-40°	1075.0	43.4
0°-60°	1911.3	77.2
0°-90°	2475.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2475.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	853	853	853	853	853	
5°	852	850	845	851	850	81
15°	812	813	813	824	824	229
25°	737	741	750	769	772	340
35°	634	644	665	689	696	397
45°	517	532	562	594	605	399
55°	391	412	452	488	498	351
65°	264	290	335	369	378	261
75°	137	168	209	212	209	144
85°	28	42	29	16	12	35
90°	0	0	0	0	0	



TEST NUMBER: P307638

CATALOG NUMBER: 14FCZ2-29-UNV-L82765-CP187-W2A-U-3000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	852.6	852.6	852.6	852.6	852.6
2.5°	856.0	853.2	847.1	853.2	852.1
5°	852.1	849.9	844.9	851.0	849.9
7.5°	846.6	844.4	840.0	847.1	846.0
10°	837.2	836.1	832.8	841.1	840.5
12.5°	826.2	825.6	823.9	833.3	832.8
15°	812.4	812.9	812.9	823.9	823.9
17.5°	796.9	798.0	800.2	812.4	814.0
20°	778.7	780.9	785.3	799.1	801.3
22.5°	759.9	761.6	768.2	784.8	787.0
25°	736.8	741.2	750.0	768.8	772.1
27.5°	714.7	718.5	730.7	750.0	755.5
30°	688.7	694.8	709.2	730.1	736.2
32.5°	663.9	670.5	687.1	711.4	716.9
35°	634.1	644.0	665.0	689.3	695.9
37.5°	607.1	616.4	640.2	666.7	674.4
40°	577.3	588.8	615.9	644.0	651.8
42.5°	549.7	560.7	590.0	618.7	629.1
45°	516.6	532.0	562.4	593.8	604.9
47.5°	486.2	501.7	536.4	570.1	580.0
50°	455.8	472.4	508.8	543.6	553.5
52.5°	424.4	442.1	481.2	516.0	527.6
55°	391.3	411.7	452.5	487.9	498.3
57.5°	359.8	380.8	424.4	460.3	470.7
60°	328.9	350.4	395.1	429.4	440.4
62.5°	294.7	320.1	366.4	400.1	408.4
65°	263.8	289.7	335.0	368.7	378.0
67.5°	231.2	259.4	304.6	335.5	344.4
70°	200.3	229.6	273.2	301.9	305.7
72.5°	167.2	197.0	241.2	259.4	259.4
75°	137.4	167.8	208.6	211.9	209.2
77.5°	104.9	138.5	165.0	158.4	151.8
80°	75.6	108.7	120.9	108.7	99.9
82.5°	50.8	78.9	72.8	57.9	51.3
85°	28.1	41.9	28.7	16.0	11.6
87.5°	10.5	9.4	2.8	2.8	2.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)