

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: P308493

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-RDP-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: P308493
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-34HE-UNV-L82765-RDP-CP187-W2A-U-3000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 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: 1830.0 lumens
Efficiency: N/A
Efficacy: 66.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

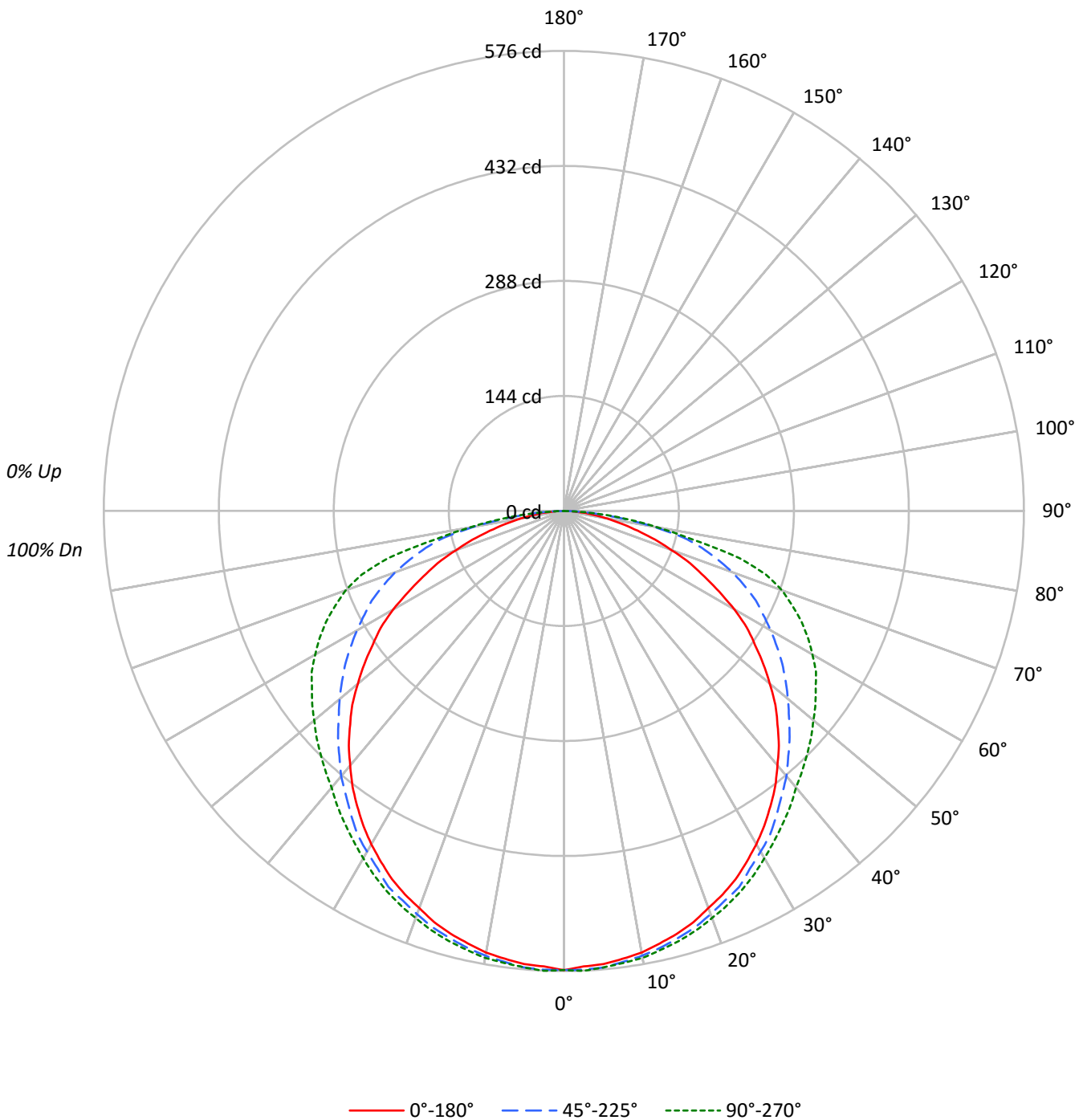
Input Watts (W): 27.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P308493

CATALOG NUMBER: 22FCZ2-34HE-UNV-L82765-RDP-CP187-W2A-U-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P308493

CATALOG NUMBER: 22FCZ2-34HE-UNV-L82765-RDP-CP187-W2A-U-3000K

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	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1547	1547	1547
5°	1538	1549	1549
10°	1534	1545	1552
15°	1526	1541	1553
20°	1515	1538	1554
25°	1511	1543	1559
30°	1497	1531	1560
35°	1482	1526	1570
40°	1461	1523	1589
45°	1440	1521	1639
50°	1409	1533	1708
55°	1370	1567	1806
60°	1326	1609	1934
65°	1235	1689	2092
70°	1133	1769	2288
75°	994	1861	2365
80°	855	1773	1857
85°	747	1288	1414



TEST NUMBER: P308493

CATALOG NUMBER: 22FCZ2-34HE-UNV-L82765-RDP-CP187-W2A-U-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.4	3.0
10°-20°	156.1	8.5
20°-30°	238.2	13.0
30°-40°	290.8	15.9
40°-50°	311.0	17.0
50°-60°	300.2	16.4
60°-70°	258.4	14.1
70°-80°	174.8	9.6
80°-90°	46.1	2.5
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°	448.7	24.5
0°-40°	739.5	40.4
0°-60°	1350.7	73.8
0°-90°	1830.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1830.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	575	575	575	575	575	
5°	569	571	574	574	574	54
15°	548	549	553	556	557	155
25°	509	512	520	522	525	234
35°	451	455	464	474	478	282
45°	378	385	400	420	431	292
55°	292	302	334	368	385	262
65°	194	213	265	307	328	193
75°	96	126	179	215	228	103
85°	24	34	42	43	46	27
90°	0	0	0	0	0	



TEST NUMBER: P308493

CATALOG NUMBER: 22FCZ2-34HE-UNV-L82765-RDP-CP187-W2A-U-3000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	574.8	574.8	574.8	574.8	574.8
2.5°	570.8	572.1	574.8	574.8	576.2
5°	569.4	570.8	573.5	573.5	573.5
7.5°	565.4	566.8	569.4	570.8	570.8
10°	561.4	562.7	565.4	566.8	568.1
12.5°	554.6	556.0	560.0	562.7	562.7
15°	547.9	549.3	553.3	556.0	557.3
17.5°	539.8	542.5	546.6	549.3	550.6
20°	529.1	531.8	537.1	541.2	542.5
22.5°	519.6	522.3	527.7	531.8	534.4
25°	508.9	511.6	519.6	522.3	525.0
27.5°	495.4	498.1	504.8	510.2	514.3
30°	481.9	484.6	492.7	499.4	502.1
32.5°	467.1	471.2	480.6	486.0	490.0
35°	451.0	455.0	464.4	473.9	477.9
37.5°	434.8	438.9	448.3	460.4	465.8
40°	416.0	421.4	433.5	449.6	452.3
42.5°	398.5	405.2	416.0	434.8	441.6
45°	378.3	385.0	399.8	420.0	430.8
47.5°	359.4	366.2	382.3	406.6	420.0
50°	336.6	346.0	366.2	394.4	407.9
52.5°	315.0	323.1	350.0	381.0	397.1
55°	292.1	301.6	333.9	367.5	385.0
57.5°	271.9	280.0	316.4	354.1	374.2
60°	246.4	257.1	298.9	339.2	359.4
62.5°	219.4	235.6	281.4	323.1	344.6
65°	193.9	212.7	265.2	306.9	328.5
67.5°	171.0	191.2	245.0	289.4	309.6
70°	144.0	169.6	224.8	267.9	290.8
72.5°	119.8	148.1	201.9	245.0	265.2
75°	95.6	126.5	179.0	215.4	227.5
77.5°	74.0	103.7	153.5	164.2	165.6
80°	55.2	82.1	114.4	115.8	119.8
82.5°	37.7	57.9	74.0	80.8	82.1
85°	24.2	33.7	41.7	43.1	45.8
87.5°	10.8	12.1	14.8	13.5	13.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)