

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: P308769

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-CP187-W2A-U-5700K**

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: P308769
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)
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-CP187-W2A-U-5700K
Description: 2'X2' 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: 3019.0 lumens
Efficiency: N/A
Efficacy: 106.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

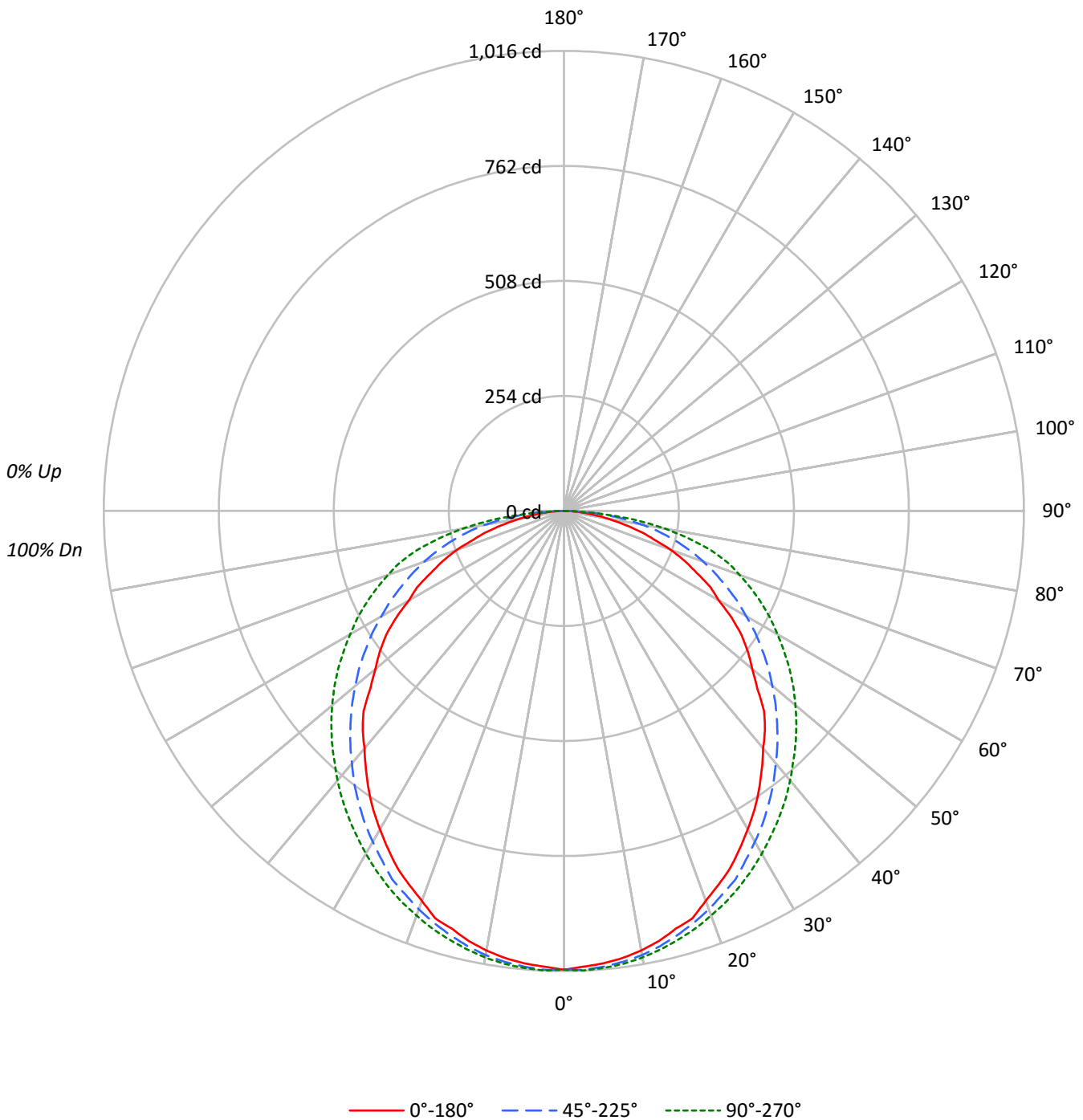
Input Watts (W): 28.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P308769

CATALOG NUMBER: 22FCZ2-34HE-UNV-L82765-CP187-W2A-U-5700K

Luminous Intensity Polar Plot





TEST NUMBER: P308769

CATALOG NUMBER: 22FCZ2-34HE-UNV-L82765-CP187-W2A-U-5700K

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	93	90	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	51	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2726	2726	2726
5°	2709	2728	2736
10°	2693	2720	2736
15°	2661	2701	2729
20°	2623	2681	2723
25°	2583	2664	2720
30°	2523	2622	2716
35°	2468	2592	2720
40°	2406	2558	2731
45°	2381	2535	2755
50°	2274	2516	2795
55°	2251	2508	2854
60°	2123	2504	2932
65°	2061	2521	3064
70°	1978	2581	3252
75°	1803	2660	3501
80°	1545	2754	3538
85°	1250	2634	3035



TEST NUMBER: P308769

CATALOG NUMBER: 22FCZ2-34HE-UNV-L82765-CP187-W2A-U-5700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.8	3.2
10°-20°	273.4	9.1
20°-30°	411.5	13.6
30°-40°	493.9	16.4
40°-50°	516.2	17.1
50°-60°	481.1	15.9
60°-70°	394.6	13.1
70°-80°	265.9	8.8
80°-90°	86.6	2.9
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°	780.8	25.9
0°-40°	1274.7	42.2
0°-60°	2272.0	75.3
0°-90°	3019.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3019.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1013	1013	1013	1013	1013	
5°	1003	1006	1010	1012	1013	95
15°	955	961	970	978	980	270
25°	870	876	897	910	916	400
35°	751	762	789	816	828	470
45°	626	630	666	707	724	478
55°	480	488	535	585	608	425
65°	324	338	396	454	481	322
75°	173	192	256	314	337	182
85°	40	58	85	100	98	48
90°	0	0	0	0	0	



TEST NUMBER: P308769

CATALOG NUMBER: 22FCZ2-34HE-UNV-L82765-CP187-W2A-U-5700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1012.9	1012.9	1012.9	1012.9	1012.9
2.5°	1007.1	1010.0	1014.3	1015.8	1015.8
5°	1002.8	1005.7	1010.0	1011.5	1012.9
7.5°	995.6	998.5	1004.2	1007.1	1008.6
10°	985.4	988.3	995.6	999.9	1001.3
12.5°	972.4	975.3	984.0	989.8	991.2
15°	955.1	960.9	969.6	978.2	979.7
17.5°	943.5	942.1	953.7	963.8	966.7
20°	916.1	923.3	936.3	947.9	950.8
22.5°	893.0	898.8	916.1	929.1	934.9
25°	869.9	875.6	897.3	910.3	916.1
27.5°	841.0	849.6	869.9	888.6	895.9
30°	812.1	820.7	843.8	865.5	874.2
32.5°	783.2	793.3	817.8	841.0	851.1
35°	751.4	761.5	788.9	816.4	827.9
37.5°	718.1	731.1	760.0	790.4	803.4
40°	684.9	697.9	728.2	762.9	777.4
42.5°	657.4	663.2	697.9	735.5	749.9
45°	625.7	630.0	666.1	706.6	723.9
47.5°	579.4	595.3	634.3	679.1	696.5
50°	543.3	560.6	601.1	648.8	667.6
52.5°	513.0	524.5	569.3	617.0	638.7
55°	479.7	488.4	534.6	585.2	608.3
57.5°	439.3	455.2	501.4	553.4	576.5
60°	394.5	414.7	465.3	521.6	544.7
62.5°	365.6	377.1	432.0	488.4	514.4
65°	323.7	338.1	395.9	453.7	481.2
67.5°	289.0	303.4	362.7	420.5	447.9
70°	251.4	265.9	328.0	385.8	413.3
72.5°	208.1	228.3	293.3	351.1	380.0
75°	173.4	192.2	255.8	313.6	336.7
77.5°	134.4	158.9	218.2	265.9	283.2
80°	99.7	124.3	177.7	212.4	228.3
82.5°	67.9	92.5	132.9	158.9	167.6
85°	40.5	57.8	85.3	99.7	98.3
87.5°	18.8	24.6	34.7	34.7	33.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)