

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: P308201

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-HRP-CA08-W2A-U-5500K**

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: P308201
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)
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-HRP-CA08-W2A-U-5500K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" ACRYLIC 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: 2500.0 lumens
Efficiency: N/A
Efficacy: 88.0 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

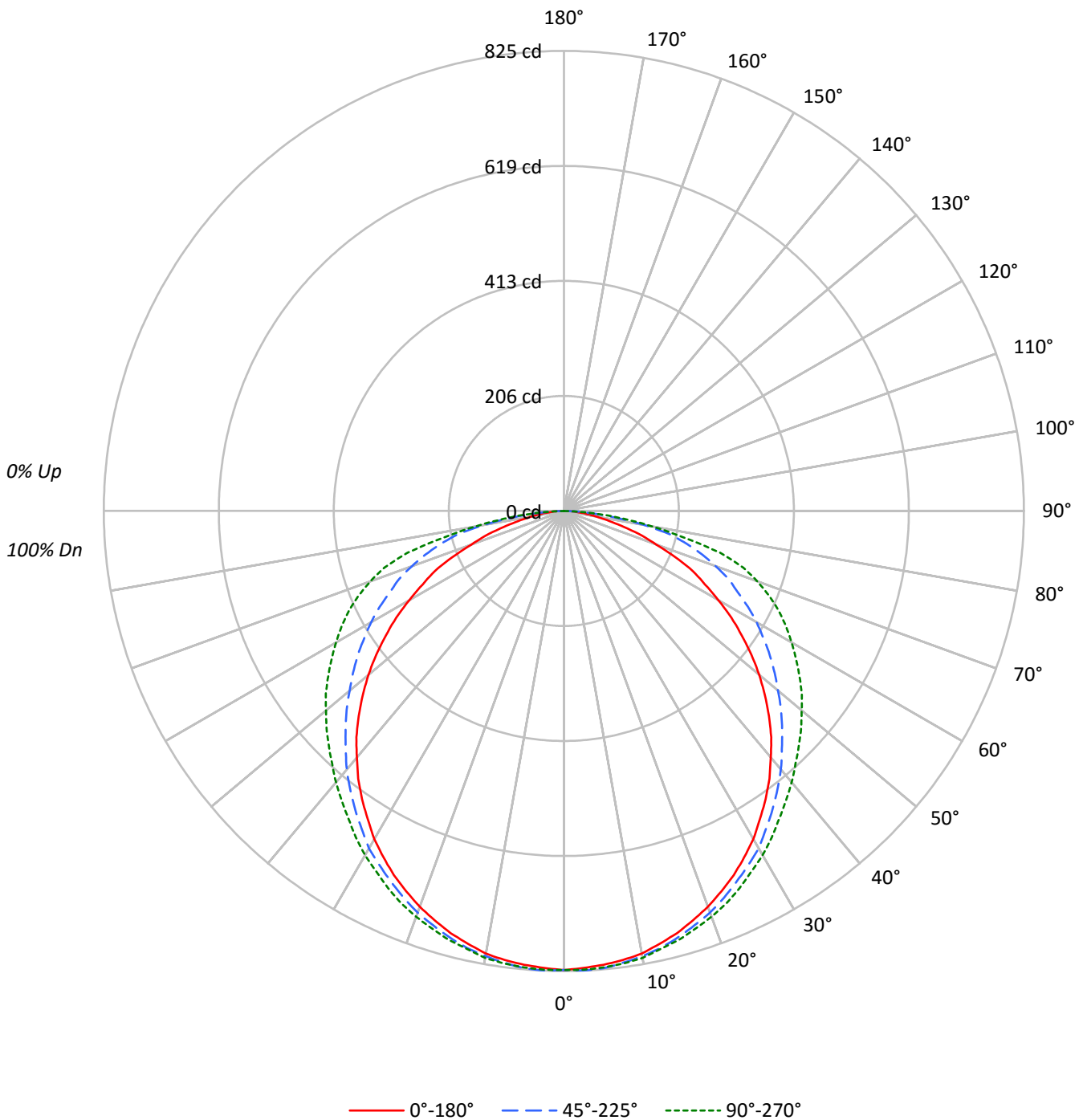
Input Watts (W): 28.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P308201

CATALOG NUMBER: 22FCZ2-34HE-UNV-L82765-HRP-CA08-W2A-U-5500K

Luminous Intensity Polar Plot





TEST NUMBER: P308201

CATALOG NUMBER: 22FC22-34HE-UNV-L82765-HRP-CA08-W2A-U-5500K

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	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	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	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
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	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2215	2215	2215
5°	2207	2224	2219
10°	2202	2215	2224
15°	2184	2206	2219
20°	2163	2195	2217
25°	2140	2177	2215
30°	2112	2171	2215
35°	2072	2145	2212
40°	2028	2127	2233
45°	1980	2106	2269
50°	1914	2099	2331
55°	1827	2116	2419
60°	1723	2147	2538
65°	1627	2189	2711
70°	1389	2283	2903
75°	1164	2378	3017
80°	953	2297	2517
85°	827	1704	1849



TEST NUMBER: P308201

CATALOG NUMBER: 22FCZ2-34HE-UNV-L82765-HRP-CA08-W2A-U-5500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.0	3.1
10°-20°	223.2	8.9
20°-30°	338.2	13.5
30°-40°	408.4	16.3
40°-50°	429.1	17.2
50°-60°	403.8	16.2
60°-70°	336.7	13.5
70°-80°	223.1	8.9
80°-90°	59.5	2.4
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°	639.4	25.6
0°-40°	1047.8	41.9
0°-60°	1880.8	75.2
0°-90°	2500.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2500.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	823	823	823	823	823	
5°	817	818	823	823	822	78
15°	784	787	792	795	796	221
25°	721	725	733	743	746	332
35°	631	637	653	667	673	394
45°	520	528	554	582	596	401
55°	390	407	451	497	516	348
65°	256	278	344	401	426	249
75°	112	156	229	276	290	122
85°	27	41	55	60	60	31
90°	0	0	0	0	0	



TEST NUMBER: P308201

CATALOG NUMBER: 22FCZ2-34HE-UNV-L82765-HRP-CA08-W2A-U-5500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	823.2	823.2	823.2	823.2	823.2
2.5°	820.1	821.6	824.8	824.8	823.2
5°	816.9	818.5	823.2	823.2	821.6
7.5°	812.2	813.8	816.9	820.1	818.5
10°	805.9	807.5	810.6	813.8	813.8
12.5°	794.8	796.4	802.7	804.3	804.3
15°	783.8	786.9	791.7	794.8	796.4
17.5°	769.6	772.8	779.1	785.4	785.4
20°	755.4	758.6	766.4	772.8	774.3
22.5°	738.1	742.8	750.7	758.6	761.7
25°	720.7	725.4	733.3	742.8	745.9
27.5°	700.2	704.9	716.0	727.0	728.6
30°	679.7	684.4	698.6	708.1	712.8
32.5°	654.5	660.8	675.0	689.2	693.9
35°	630.8	637.1	652.9	667.1	673.4
37.5°	605.6	611.9	629.2	646.6	654.5
40°	577.2	585.1	605.6	624.5	635.6
42.5°	550.4	558.3	578.8	604.0	615.1
45°	520.4	528.3	553.5	581.9	596.1
47.5°	488.9	498.3	528.3	563.0	577.2
50°	457.3	468.4	501.5	540.9	556.7
52.5°	424.2	438.4	476.3	518.9	537.8
55°	389.5	406.9	451.0	496.8	515.7
57.5°	356.4	372.2	424.2	473.1	493.6
60°	320.1	340.6	399.0	449.5	471.5
62.5°	285.4	307.5	372.2	425.8	449.5
65°	255.5	277.6	343.8	400.6	425.8
67.5°	216.1	246.0	320.1	373.8	399.0
70°	176.6	217.6	290.2	345.4	369.0
72.5°	146.7	186.1	260.2	315.4	337.5
75°	112.0	156.1	228.7	276.0	290.2
77.5°	83.6	129.3	195.6	219.2	220.8
80°	61.5	99.4	148.2	156.1	162.4
82.5°	42.6	69.4	96.2	105.7	108.8
85°	26.8	41.0	55.2	59.9	59.9
87.5°	14.2	15.8	18.9	18.9	18.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)