

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: P308238

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-HRP-CP250-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: P308238
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-CP250-W2A-U-5700K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"
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: 2326.0 lumens
Efficiency: N/A
Efficacy: 81.9 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

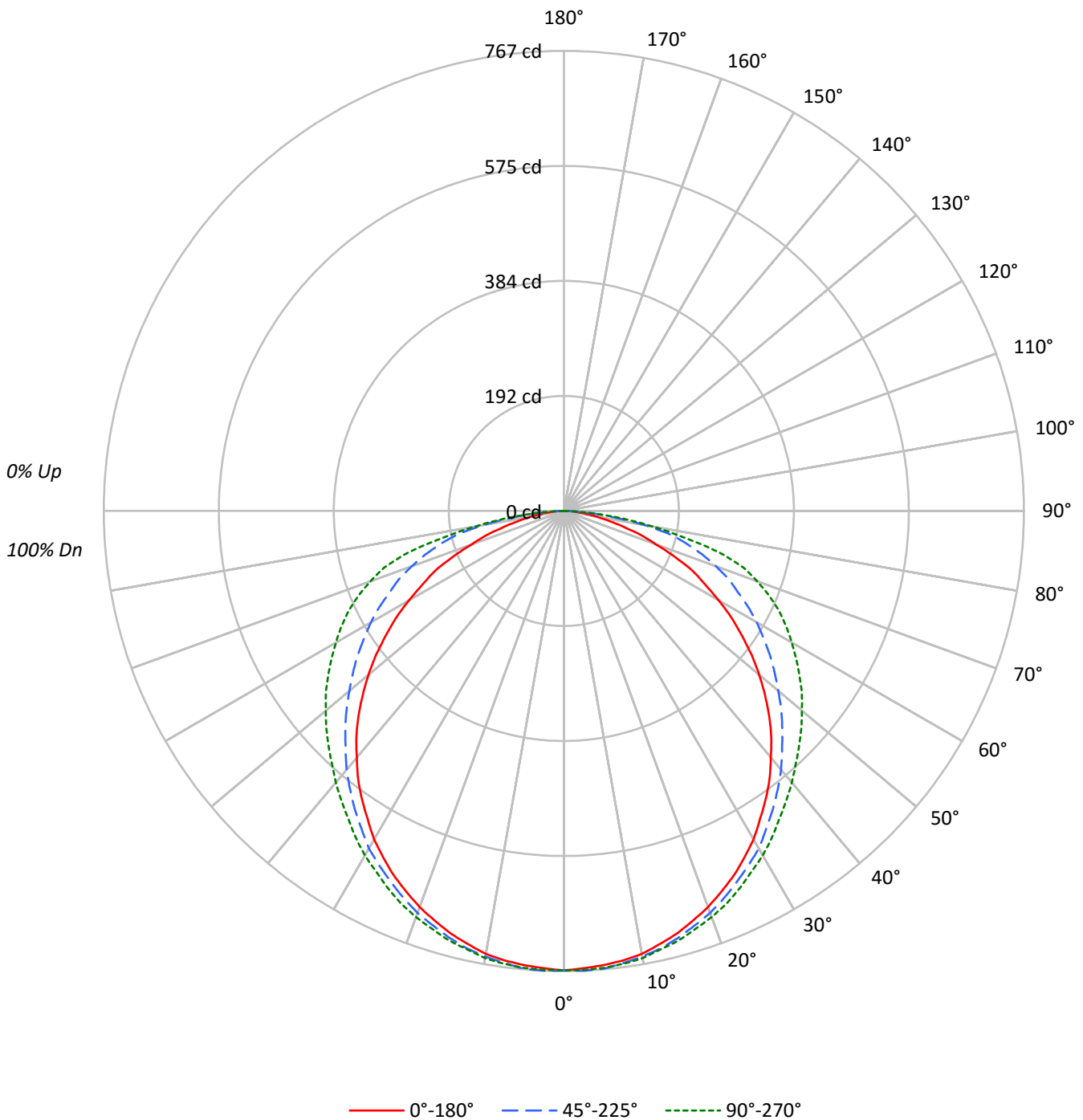
Input Watts (W): 28.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P308238

CATALOG NUMBER: 22FCZ2-34HE-UNV-L82765-HRP-CP250-W2A-U-5700K

Luminous Intensity Polar Plot





TEST NUMBER: P308238

CATALOG NUMBER: 22FC22-34HE-UNV-L82765-HRP-CP250-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	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°	2061	2061	2061
5°	2053	2069	2065
10°	2049	2061	2069
15°	2031	2052	2064
20°	2013	2042	2063
25°	1991	2026	2061
30°	1965	2020	2061
35°	1928	1996	2058
40°	1886	1979	2077
45°	1843	1960	2111
50°	1781	1953	2169
55°	1700	1969	2251
60°	1603	1998	2361
65°	1514	2037	2523
70°	1293	2124	2701
75°	1083	2213	2807
80°	886	2137	2342
85°	769	1587	1723



TEST NUMBER: P308238

CATALOG NUMBER: 22FCZ2-34HE-UNV-L82765-HRP-CP250-W2A-U-5700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.6	3.1
10°-20°	207.6	8.9
20°-30°	314.7	13.5
30°-40°	380.0	16.3
40°-50°	399.3	17.2
50°-60°	375.7	16.2
60°-70°	313.2	13.5
70°-80°	207.6	8.9
80°-90°	55.3	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°	594.9	25.6
0°-40°	974.9	41.9
0°-60°	1749.9	75.2
0°-90°	2326.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2326.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	766	766	766	766	766	
5°	760	762	766	766	764	72
15°	729	732	737	740	741	206
25°	671	675	682	691	694	309
35°	587	593	608	621	626	367
45°	484	492	515	541	555	373
55°	362	379	420	462	480	324
65°	238	258	320	373	396	231
75°	104	145	213	257	270	113
85°	25	38	51	56	56	29
90°	0	0	0	0	0	



TEST NUMBER: P308238

CATALOG NUMBER: 22FCZ2-34HE-UNV-L82765-HRP-CP250-W2A-U-5700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	765.9	765.9	765.9	765.9	765.9
2.5°	763.0	764.5	767.4	767.4	765.9
5°	760.1	761.5	765.9	765.9	764.5
7.5°	755.7	757.1	760.1	763.0	761.5
10°	749.8	751.3	754.2	757.1	757.1
12.5°	739.5	741.0	746.9	748.3	748.3
15°	729.2	732.2	736.6	739.5	741.0
17.5°	716.0	719.0	724.8	730.7	730.7
20°	702.8	705.8	713.1	719.0	720.4
22.5°	686.7	691.1	698.4	705.8	708.7
25°	670.6	675.0	682.3	691.1	694.0
27.5°	651.5	655.9	666.1	676.4	677.9
30°	632.4	636.8	650.0	658.8	663.2
32.5°	608.9	614.8	628.0	641.2	645.6
35°	586.9	592.8	607.5	620.7	626.5
37.5°	563.4	569.3	585.4	601.6	608.9
40°	537.0	544.4	563.4	581.0	591.3
42.5°	512.1	519.4	538.5	562.0	572.2
45°	484.2	491.5	515.0	541.4	554.6
47.5°	454.9	463.7	491.5	523.8	537.0
50°	425.5	435.8	466.6	503.3	518.0
52.5°	394.7	407.9	443.1	482.7	500.3
55°	362.4	378.6	419.6	462.2	479.8
57.5°	331.6	346.3	394.7	440.2	459.3
60°	297.9	316.9	371.2	418.2	438.7
62.5°	265.6	286.1	346.3	396.2	418.2
65°	237.7	258.2	319.9	372.7	396.2
67.5°	201.0	228.9	297.9	347.7	371.2
70°	164.3	202.5	270.0	321.3	343.3
72.5°	136.5	173.1	242.1	293.5	314.0
75°	104.2	145.3	212.8	256.8	270.0
77.5°	77.8	120.3	181.9	204.0	205.4
80°	57.2	92.4	137.9	145.3	151.1
82.5°	39.6	64.6	89.5	98.3	101.2
85°	24.9	38.1	51.4	55.8	55.8
87.5°	13.2	14.7	17.6	17.6	17.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)