

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: P308236

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-HRP-CP250-W2A-U-5000K**

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: P308236
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-5000K
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: 2297.0 lumens
Efficiency: N/A
Efficacy: 81.5 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

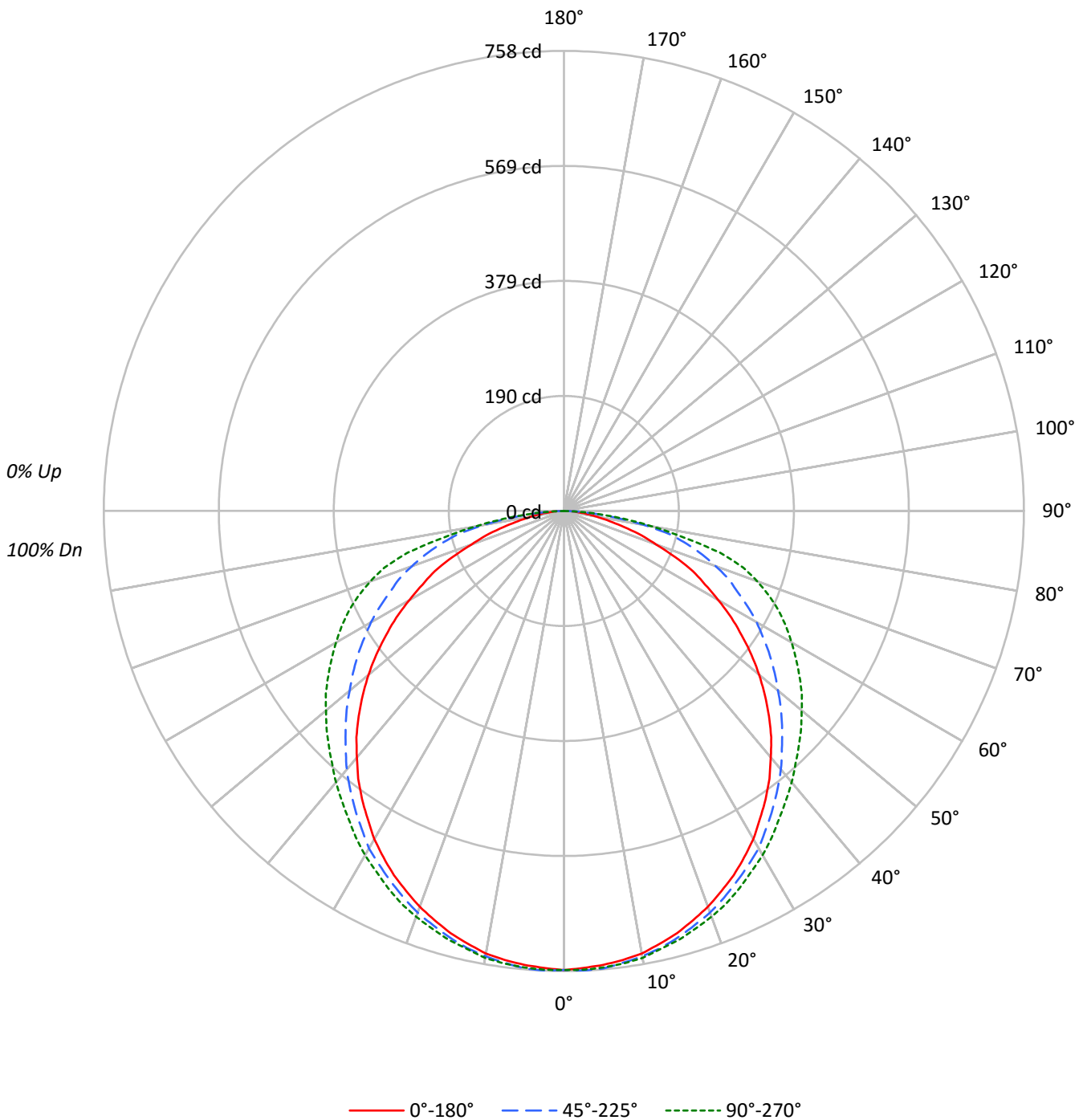
Input Watts (W): 28.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P308236

CATALOG NUMBER: 22FCZ2-34HE-UNV-L82765-HRP-CP250-W2A-U-5000K

Luminous Intensity Polar Plot





TEST NUMBER: P308236

CATALOG NUMBER: 22FC22-34HE-UNV-L82765-HRP-CP250-W2A-U-5000K

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°	2035	2035	2035
5°	2028	2043	2039
10°	2023	2035	2043
15°	2006	2026	2038
20°	1988	2017	2038
25°	1966	2001	2035
30°	1940	1995	2035
35°	1904	1971	2032
40°	1863	1955	2051
45°	1820	1936	2084
50°	1759	1929	2141
55°	1679	1944	2223
60°	1583	1973	2332
65°	1494	2011	2491
70°	1277	2098	2668
75°	1070	2184	2772
80°	876	2111	2312
85°	760	1565	1701



TEST NUMBER: P308236

CATALOG NUMBER: 22FCZ2-34HE-UNV-L82765-HRP-CP250-W2A-U-5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.7	3.1
10°-20°	205.1	8.9
20°-30°	310.8	13.5
30°-40°	375.2	16.3
40°-50°	394.3	17.2
50°-60°	371.0	16.2
60°-70°	309.3	13.5
70°-80°	205.0	8.9
80°-90°	54.6	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°	587.5	25.6
0°-40°	962.8	41.9
0°-60°	1728.1	75.2
0°-90°	2297.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2297.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	756	756	756	756	756	
5°	751	752	756	756	755	71
15°	720	723	727	730	732	203
25°	662	666	674	682	685	305
35°	580	585	600	613	619	362
45°	478	485	509	535	548	368
55°	358	374	414	456	474	320
65°	235	255	316	368	391	228
75°	103	144	210	254	267	112
85°	25	38	51	55	55	29
90°	0	0	0	0	0	



TEST NUMBER: P308236

CATALOG NUMBER: 22FCZ2-34HE-UNV-L82765-HRP-CP250-W2A-U-5000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	756.4	756.4	756.4	756.4	756.4
2.5°	753.5	754.9	757.8	757.8	756.4
5°	750.6	752.0	756.4	756.4	754.9
7.5°	746.2	747.7	750.6	753.5	752.0
10°	740.4	741.9	744.8	747.7	747.7
12.5°	730.3	731.7	737.5	739.0	739.0
15°	720.2	723.0	727.4	730.3	731.7
17.5°	707.1	710.0	715.8	721.6	721.6
20°	694.1	697.0	704.2	710.0	711.5
22.5°	678.1	682.5	689.7	697.0	699.9
25°	662.2	666.5	673.8	682.5	685.4
27.5°	643.4	647.7	657.8	668.0	669.4
30°	624.5	628.9	641.9	650.6	654.9
32.5°	601.3	607.1	620.2	633.2	637.6
35°	579.6	585.4	599.9	612.9	618.7
37.5°	556.4	562.2	578.1	594.1	601.3
40°	530.3	537.6	556.4	573.8	583.9
42.5°	505.7	512.9	531.8	555.0	565.1
45°	478.2	485.4	508.6	534.7	547.7
47.5°	449.2	457.9	485.4	517.3	530.3
50°	420.2	430.4	460.8	497.0	511.5
52.5°	389.8	402.8	437.6	476.7	494.1
55°	357.9	373.8	414.4	456.4	473.8
57.5°	327.5	342.0	389.8	434.7	453.5
60°	294.1	313.0	366.6	413.0	433.3
62.5°	262.3	282.6	342.0	391.2	413.0
65°	234.7	255.0	315.9	368.0	391.2
67.5°	198.5	226.0	294.1	343.4	366.6
70°	162.3	200.0	266.6	317.3	339.1
72.5°	134.8	171.0	239.1	289.8	310.1
75°	102.9	143.5	210.1	253.6	266.6
77.5°	76.8	118.8	179.7	201.4	202.9
80°	56.5	91.3	136.2	143.5	149.2
82.5°	39.1	63.8	88.4	97.1	100.0
85°	24.6	37.7	50.7	55.1	55.1
87.5°	13.0	14.5	17.4	17.4	17.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)