

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: P310526

Luminaire Tested: **24FCZ2-30HE-UNV-L82765-CP250-W2A-U-2700K**

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: P310526
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-30HE-UNV-L82765-CP250-W2A-U-2700K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.250" POLYCARB SHEET
Light Source: (336) 2700K 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: 2390.0 lumens
Efficiency: N/A
Efficacy: 113.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

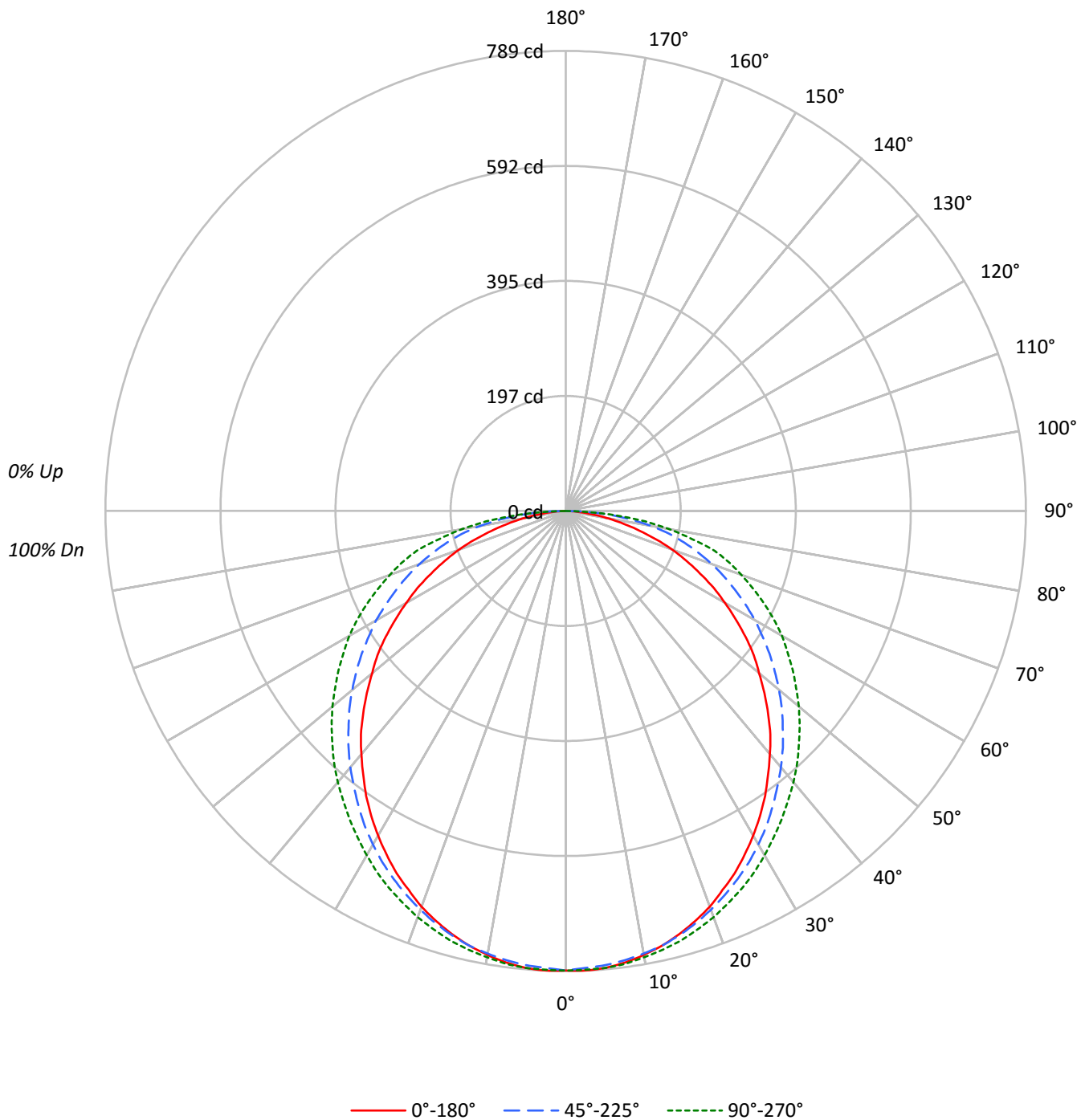
Input Watts (W): 21.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P310526

CATALOG NUMBER: 24FCZ2-30HE-UNV-L82765-CP250-W2A-U-2700K

Luminous Intensity Polar Plot





TEST NUMBER: P310526

CATALOG NUMBER: 24FCZ2-30HE-UNV-L82765-CP250-W2A-U-2700K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				0
RW	70	50	30	10	70	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		100
1	108	103	98	94	105	100	96	92	96	92	89		92	89	87		82
2	98	89	81	75	95	87	80	74	83	78	73		80	75	71		67
3	89	77	69	62	86	76	68	61	73	66	60		70	64	59		56
4	81	68	59	52	79	67	58	52	64	57	51		62	56	50		47
5	74	61	52	45	72	60	51	44	58	50	44		56	49	43		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	64	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	37	31	57	45	36	30	43	36	30		42	35	30		28
9	55	41	33	27	54	41	33	27	40	32	27		39	32	27		25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	25		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1061	1061	1061
5°	1062	1056	1062
10°	1056	1053	1062
15°	1047	1049	1063
20°	1034	1042	1062
25°	1018	1035	1061
30°	999	1026	1059
35°	979	1016	1060
40°	957	1008	1067
45°	934	1002	1076
50°	906	999	1092
55°	884	1001	1114
60°	849	1009	1152
65°	810	1020	1194
70°	768	1051	1260
75°	684	1096	1377
80°	583	1161	1407
85°	417	1150	1346



TEST NUMBER: P310526

CATALOG NUMBER: 24FCZ2-30HE-UNV-L82765-CP250-W2A-U-2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.6	3.1
10°-20°	213.3	8.9
20°-30°	322.2	13.5
30°-40°	388.3	16.2
40°-50°	407.6	17.1
50°-60°	381.4	16.0
60°-70°	314.9	13.2
70°-80°	214.6	9.0
80°-90°	73.2	3.1
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°	610.0	25.5
0°-40°	998.3	41.8
0°-60°	1787.3	74.8
0°-90°	2390.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2390.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	788	788	788	788	788	
5°	787	786	782	787	787	75
15°	752	752	753	761	763	212
25°	686	689	697	710	714	316
35°	596	603	618	639	646	373
45°	491	501	526	555	565	379
55°	377	392	427	462	475	336
65°	254	276	320	361	375	252
75°	132	162	211	251	265	140
85°	27	53	74	84	87	34
90°	0	0	0	0	0	



TEST NUMBER: P310526

CATALOG NUMBER: 24FCZ2-30HE-UNV-L82765-CP250-W2A-U-2700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	788.2	788.2	788.2	788.2	788.2
2.5°	789.0	788.2	784.2	788.2	787.4
5°	786.6	785.8	781.9	786.6	786.6
7.5°	781.1	781.1	777.1	782.7	783.4
10°	773.1	773.1	770.8	777.1	777.1
12.5°	763.6	763.6	763.6	770.0	770.8
15°	751.7	752.5	753.3	761.2	762.8
17.5°	737.5	739.0	741.4	750.9	752.5
20°	722.4	724.0	727.9	739.0	741.4
22.5°	703.4	707.3	712.9	725.6	727.9
25°	685.9	689.1	697.0	710.5	714.5
27.5°	664.5	669.3	679.6	693.8	699.4
30°	643.1	647.8	660.5	677.2	681.9
32.5°	620.1	627.2	640.7	658.2	663.7
35°	596.3	602.6	618.5	639.1	645.5
37.5°	570.1	578.9	596.3	618.5	626.4
40°	544.8	554.3	574.1	597.9	607.4
42.5°	519.4	528.9	551.1	578.1	587.6
45°	490.8	501.2	526.5	555.1	565.4
47.5°	462.3	475.0	502.7	532.9	544.0
50°	433.0	447.2	477.4	509.1	521.8
52.5°	406.8	420.3	452.0	486.1	498.0
55°	376.7	391.7	426.6	461.5	475.0
57.5°	345.7	362.4	399.7	437.7	451.2
60°	315.6	333.8	375.1	413.1	428.2
62.5°	286.3	304.5	347.3	387.0	402.0
65°	254.5	275.9	320.4	360.8	375.1
67.5°	224.4	247.4	294.2	333.8	348.1
70°	195.1	217.3	267.2	306.1	320.4
72.5°	163.3	188.7	238.7	279.1	294.2
75°	131.6	161.8	210.9	250.6	264.8
77.5°	102.3	133.2	182.4	214.9	222.0
80°	75.3	107.0	149.9	172.9	181.6
82.5°	48.4	80.1	114.2	130.8	138.0
85°	27.0	53.1	74.5	84.1	87.2
87.5°	11.1	23.0	30.1	34.1	34.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)