

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: P310616

Luminaire Tested: **24FCZ2-35HE-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: P310616
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: 24FCZ2-35HE-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: 2740.0 lumens
Efficiency: N/A
Efficacy: 105.4 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

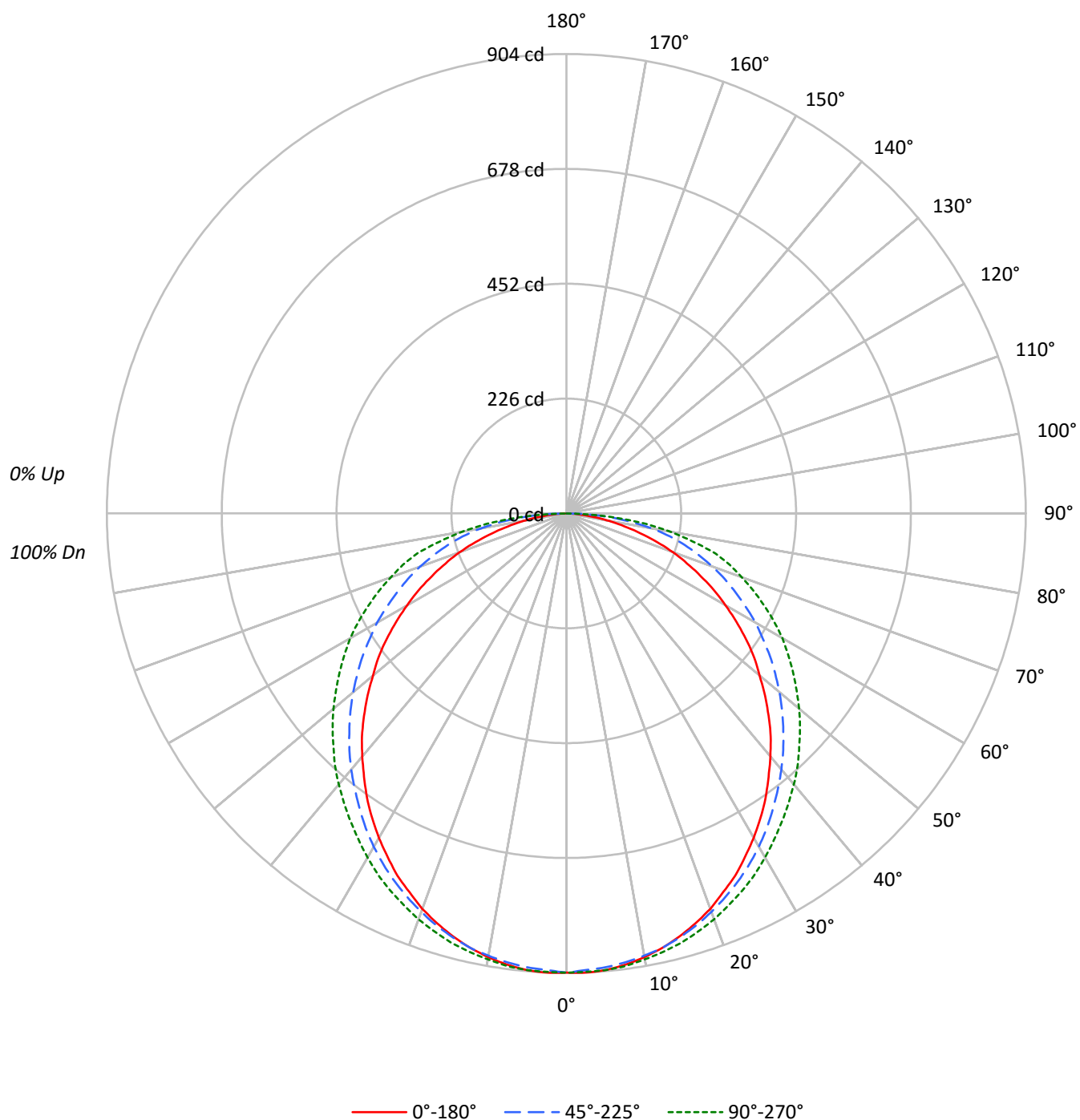
Input Watts (W): 26
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P310616

CATALOG NUMBER: 24FCZ2-35HE-UNV-L82765-CP250-W2A-U-2700K

Luminous Intensity Polar Plot





TEST NUMBER: P310616

CATALOG NUMBER: 24FCZ2-35HE-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°	1216	1216	1216
5°	1218	1211	1218
10°	1211	1207	1217
15°	1200	1203	1218
20°	1186	1195	1217
25°	1167	1186	1216
30°	1145	1177	1215
35°	1123	1165	1215
40°	1097	1156	1223
45°	1071	1149	1233
50°	1039	1146	1252
55°	1013	1147	1277
60°	974	1157	1321
65°	929	1169	1369
70°	880	1205	1445
75°	784	1257	1578
80°	669	1331	1613
85°	477	1320	1544



TEST NUMBER: P310616

CATALOG NUMBER: 24FCZ2-35HE-UNV-L82765-CP250-W2A-U-2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.5	3.1
10°-20°	244.5	8.9
20°-30°	369.3	13.5
30°-40°	445.1	16.2
40°-50°	467.3	17.1
50°-60°	437.2	16.0
60°-70°	361.0	13.2
70°-80°	246.0	9.0
80°-90°	83.9	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°	699.4	25.5
0°-40°	1144.5	41.8
0°-60°	2049.0	74.8
0°-90°	2740.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2740.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	904	904	904	904	904	
5°	902	901	896	902	902	86
15°	862	863	864	873	874	243
25°	786	790	799	814	819	362
35°	684	691	709	733	740	427
45°	563	574	604	636	648	434
55°	432	449	489	529	544	385
65°	292	316	367	414	430	289
75°	151	186	242	287	304	161
85°	31	61	86	96	100	39
90°	0	0	0	0	0	



TEST NUMBER: P310616

CATALOG NUMBER: 24FCZ2-35HE-UNV-L82765-CP250-W2A-U-2700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	903.6	903.6	903.6	903.6	903.6
2.5°	904.5	903.6	899.1	903.6	902.7
5°	901.8	900.9	896.4	901.8	901.8
7.5°	895.4	895.4	890.9	897.3	898.2
10°	886.4	886.4	883.6	890.9	890.9
12.5°	875.4	875.4	875.4	882.7	883.6
15°	861.8	862.7	863.6	872.7	874.5
17.5°	845.4	847.3	850.0	860.9	862.7
20°	828.2	830.0	834.5	847.3	850.0
22.5°	806.4	810.9	817.3	831.8	834.5
25°	786.4	790.0	799.1	814.5	819.1
27.5°	761.8	767.3	779.1	795.4	801.8
30°	737.3	742.7	757.3	776.4	781.8
32.5°	710.9	719.1	734.5	754.5	760.9
35°	683.6	690.9	709.1	732.7	740.0
37.5°	653.6	663.6	683.6	709.1	718.2
40°	624.5	635.4	658.2	685.4	696.4
42.5°	595.4	606.4	631.8	662.7	673.6
45°	562.7	574.5	603.6	636.4	648.2
47.5°	530.0	544.5	576.4	610.9	623.6
50°	496.4	512.7	547.3	583.6	598.2
52.5°	466.4	481.8	518.2	557.3	570.9
55°	431.8	449.1	489.1	529.1	544.5
57.5°	396.4	415.5	458.2	501.8	517.3
60°	361.8	382.7	430.0	473.6	490.9
62.5°	328.2	349.1	398.2	443.6	460.9
65°	291.8	316.4	367.3	413.6	430.0
67.5°	257.3	283.6	337.3	382.7	399.1
70°	223.6	249.1	306.4	350.9	367.3
72.5°	187.3	216.4	273.6	320.0	337.3
75°	150.9	185.5	241.8	287.3	303.6
77.5°	117.3	152.7	209.1	246.4	254.5
80°	86.4	122.7	171.8	198.2	208.2
82.5°	55.5	91.8	130.9	150.0	158.2
85°	30.9	60.9	85.5	96.4	100.0
87.5°	12.7	26.4	34.5	39.1	39.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)