

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: P310373

Luminaire Tested: **24FCZ2-65HE-UNV-L82765-RDP-CP125-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: P310373
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-65HE-UNV-L82765-RDP-CP125-W2A-U-2700K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" 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: 3603.0 lumens
Efficiency: N/A
Efficacy: 68.5 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

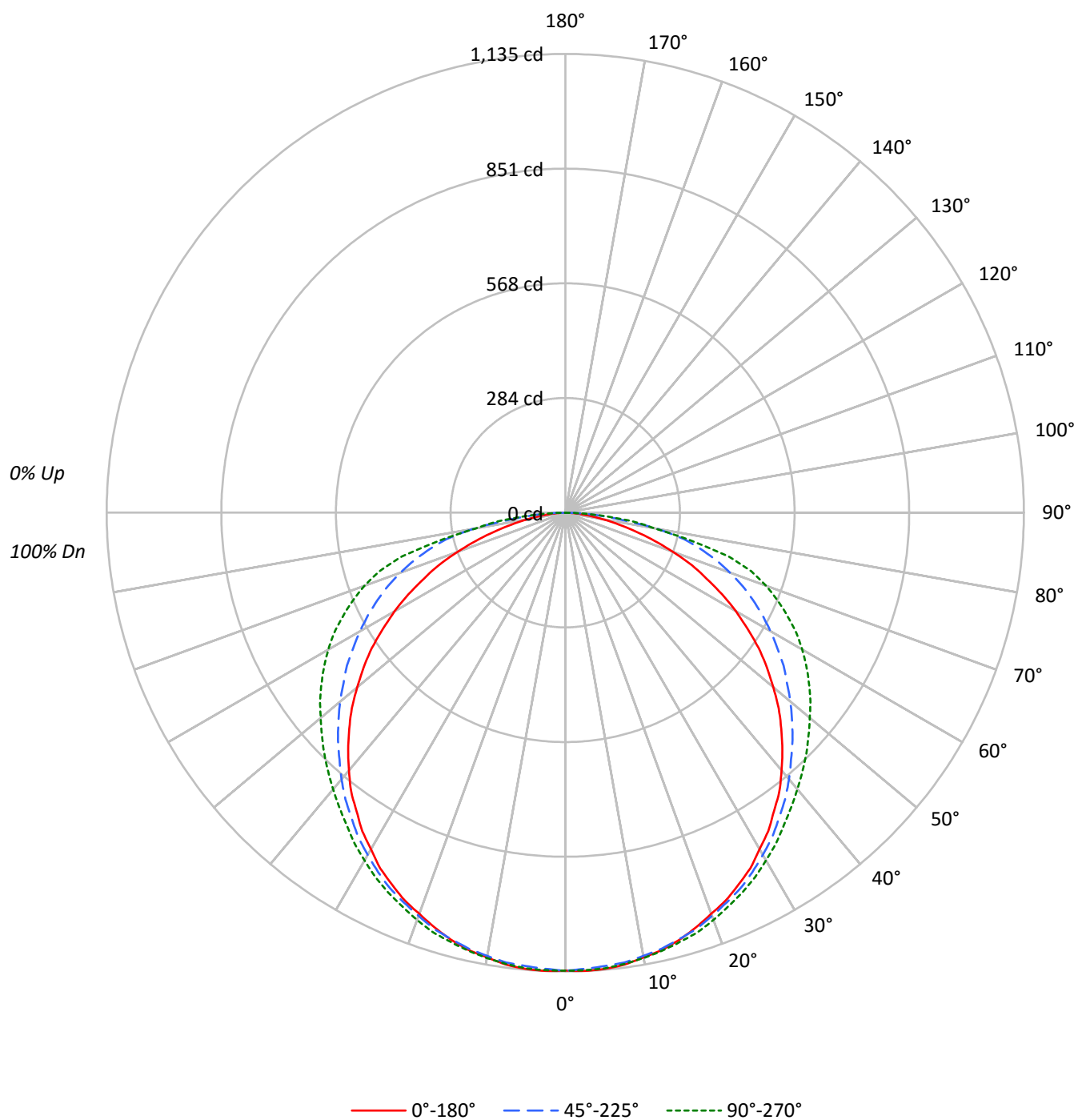
Input Watts (W): 52.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P310373

CATALOG NUMBER: 24FCZ2-65HE-UNV-L82765-RDP-CP125-W2A-U-2700K

Luminous Intensity Polar Plot





TEST NUMBER: P310373

CATALOG NUMBER: 24FCZ2-65HE-UNV-L82765-RDP-CP125-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	93	89		92	89	87		82
2	97	89	81	75	95	87	80	74	83	77	72		80	75	71		67
3	88	77	68	62	86	76	67	61	72	66	60		70	64	59		56
4	81	68	59	52	78	67	58	51	64	57	51		62	55	50		47
5	74	60	51	44	72	59	51	44	57	49	43		55	48	43		40
6	68	54	45	38	66	53	45	38	51	44	38		50	43	37		35
7	63	49	40	34	61	48	40	34	47	39	33		45	38	33		31
8	59	45	36	30	57	44	36	30	43	35	30		41	34	29		27
9	55	41	33	27	53	40	32	27	39	32	27		38	31	26		24
10	51	38	30	24	50	37	29	24	36	29	24		35	29	24		22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1524	1524	1524
5°	1530	1521	1528
10°	1526	1521	1528
15°	1523	1521	1531
20°	1512	1520	1535
25°	1507	1523	1539
30°	1494	1519	1544
35°	1479	1515	1550
40°	1463	1513	1570
45°	1439	1513	1605
50°	1407	1523	1653
55°	1371	1547	1727
60°	1313	1577	1823
65°	1229	1633	1934
70°	1118	1709	2081
75°	948	1802	2174
80°	748	1814	1759
85°	551	1380	1545



TEST NUMBER: P310373

CATALOG NUMBER: 24FCZ2-65HE-UNV-L82765-RDP-CP125-W2A-U-2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.5	3.0
10°-20°	309.3	8.6
20°-30°	473.0	13.1
30°-40°	578.3	16.0
40°-50°	616.3	17.1
50°-60°	589.3	16.4
60°-70°	499.2	13.9
70°-80°	335.5	9.3
80°-90°	94.6	2.6
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°	889.8	24.7
0°-40°	1468.1	40.7
0°-60°	2673.7	74.2
0°-90°	3603.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3603.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1133	1133	1133	1133	1133	
5°	1133	1131	1126	1131	1131	108
15°	1094	1094	1092	1101	1099	308
25°	1015	1019	1026	1035	1036	468
35°	901	908	922	940	944	564
45°	756	768	795	829	844	583
55°	584	606	660	711	736	521
65°	386	425	513	581	608	383
75°	182	248	347	406	418	195
85°	36	73	89	96	100	44
90°	0	0	0	0	0	



TEST NUMBER: P310373

CATALOG NUMBER: 24FCZ2-65HE-UNV-L82765-RDP-CP125-W2A-U-2700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1133.0	1133.0	1133.0	1133.0	1133.0
2.5°	1134.8	1134.8	1129.5	1133.0	1133.0
5°	1133.0	1131.3	1125.9	1131.3	1131.3
7.5°	1127.7	1125.9	1122.3	1127.7	1125.9
10°	1117.0	1117.0	1113.4	1118.7	1118.7
12.5°	1108.0	1106.2	1104.4	1111.6	1109.8
15°	1093.7	1093.7	1091.9	1100.9	1099.1
17.5°	1075.9	1077.6	1079.4	1086.6	1088.4
20°	1056.2	1059.8	1061.6	1072.3	1072.3
22.5°	1038.3	1040.1	1043.7	1054.4	1054.4
25°	1015.1	1018.7	1025.8	1034.7	1036.5
27.5°	991.9	993.6	1002.6	1015.1	1016.9
30°	961.5	966.8	977.6	991.9	993.6
32.5°	934.7	940.0	952.5	966.8	970.4
35°	900.7	907.9	922.2	940.0	943.6
37.5°	870.3	875.7	893.6	913.2	918.6
40°	832.8	843.5	861.4	884.6	893.6
42.5°	795.3	806.0	827.4	857.8	868.5
45°	756.0	768.5	795.3	829.2	843.5
47.5°	716.6	730.9	761.3	800.6	816.7
50°	672.0	689.8	727.4	772.0	789.9
52.5°	629.1	650.5	691.6	741.7	764.9
55°	584.4	605.8	659.5	711.3	736.3
57.5°	534.4	562.9	621.9	680.9	707.7
60°	487.9	514.7	586.2	650.5	677.3
62.5°	437.8	473.6	550.4	618.3	645.2
65°	386.0	425.3	512.9	580.8	607.6
67.5°	339.6	382.4	475.4	543.3	570.1
70°	284.2	337.8	434.3	502.2	529.0
72.5°	232.3	291.3	391.4	457.5	482.5
75°	182.3	248.4	346.7	405.7	418.2
77.5°	135.8	205.5	300.2	325.3	316.3
80°	96.5	164.4	234.1	221.6	227.0
82.5°	62.5	125.1	144.8	164.4	169.8
85°	35.7	73.3	89.4	96.5	100.1
87.5°	16.1	26.8	35.7	35.7	34.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)