

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: P310741

Luminaire Tested: **24FCZ2-40-UNV-L82765-CP125-W2A-U-6500K**

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: P310741
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: 24FCZ2-40-UNV-L82765-CP125-W2A-U-6500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (168) 6500K 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

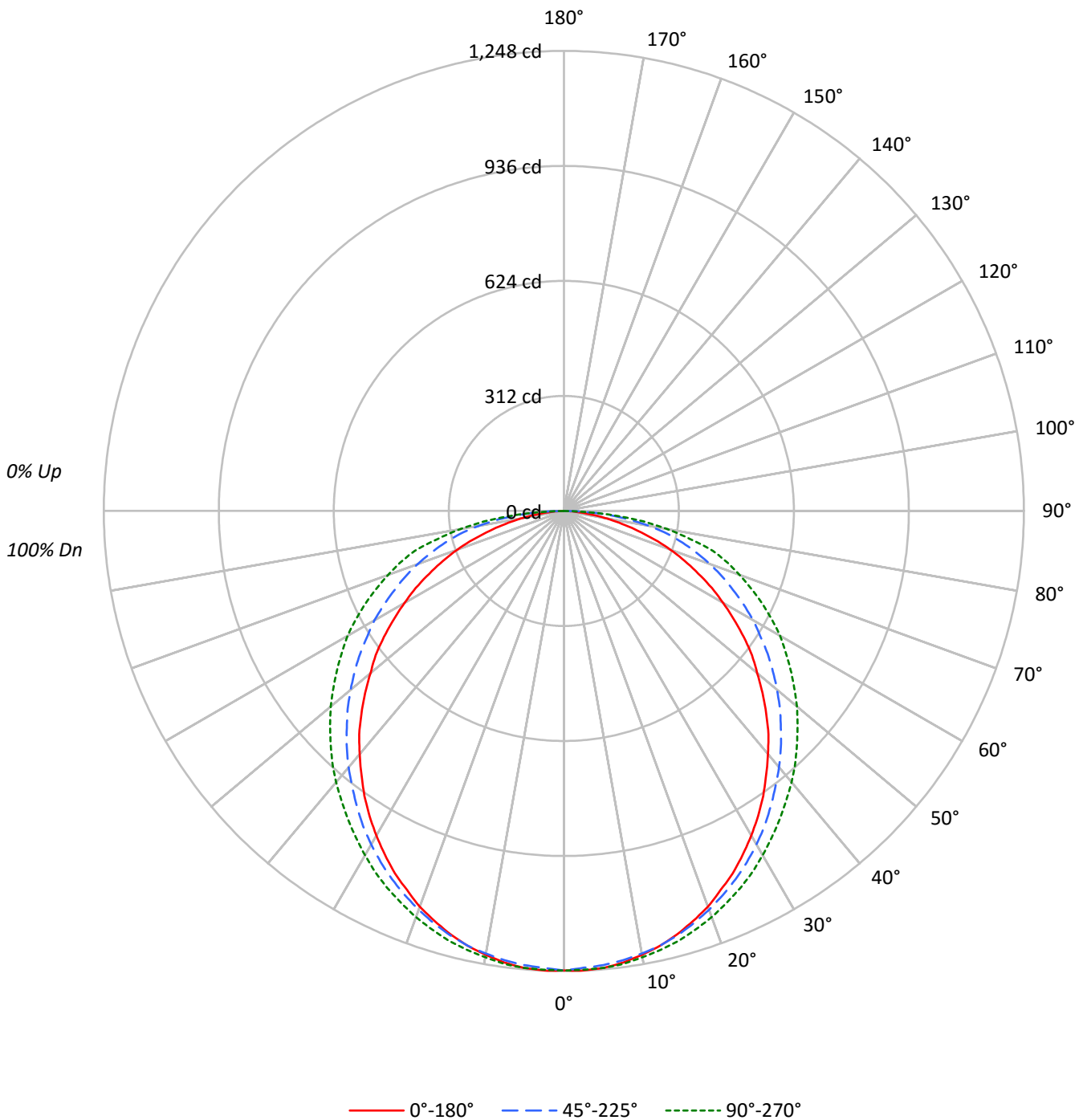
Lumens per Lamp: N/A
Luminaire Lumens: 3780.0 lumens
Efficiency: N/A
Efficacy: 110.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 34.2
Input Voltage (V): NR
Input Current (A_{in}): 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: P310741
CATALOG NUMBER: 24FCZ2-40-UNV-L82765-CP125-W2A-U-6500K

Luminous Intensity Polar Plot





TEST NUMBER: P310741

CATALOG NUMBER: 24FCZ2-40-UNV-L82765-CP125-W2A-U-6500K

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	100	96	92	96	92	89	92	89	87	88	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	64	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	37	31	57	45	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	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°	1677	1677	1677
5°	1680	1670	1680
10°	1671	1665	1679
15°	1656	1660	1681
20°	1636	1648	1679
25°	1610	1637	1678
30°	1580	1623	1676
35°	1549	1607	1677
40°	1513	1595	1687
45°	1477	1584	1701
50°	1433	1580	1727
55°	1397	1583	1762
60°	1343	1596	1822
65°	1282	1613	1889
70°	1214	1662	1993
75°	1082	1734	2178
80°	923	1836	2225
85°	658	1820	2130



TEST NUMBER: P310741

CATALOG NUMBER: 24FCZ2-40-UNV-L82765-CP125-W2A-U-6500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.0	3.1
10°-20°	337.3	8.9
20°-30°	509.5	13.5
30°-40°	614.1	16.2
40°-50°	644.7	17.1
50°-60°	603.1	16.0
60°-70°	498.1	13.2
70°-80°	339.4	9.0
80°-90°	115.7	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°	964.8	25.5
0°-40°	1578.9	41.8
0°-60°	2826.7	74.8
0°-90°	3780.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3780.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1247	1247	1247	1247	1247	
5°	1244	1243	1237	1244	1244	118
15°	1189	1190	1191	1204	1206	335
25°	1085	1090	1102	1124	1130	499
35°	943	953	978	1011	1021	589
45°	776	793	833	878	894	599
55°	596	620	675	730	751	532
65°	403	436	507	571	593	399
75°	208	256	334	396	419	222
85°	43	84	118	133	138	53
90°	0	0	0	0	0	



TEST NUMBER: P310741

CATALOG NUMBER: 24FCZ2-40-UNV-L82765-CP125-W2A-U-6500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1246.6	1246.6	1246.6	1246.6	1246.6
2.5°	1247.9	1246.6	1240.3	1246.6	1245.4
5°	1244.1	1242.8	1236.6	1244.1	1244.1
7.5°	1235.3	1235.3	1229.1	1237.8	1239.1
10°	1222.8	1222.8	1219.0	1229.1	1229.1
12.5°	1207.7	1207.7	1207.7	1217.8	1219.0
15°	1188.9	1190.2	1191.4	1204.0	1206.5
17.5°	1166.3	1168.9	1172.6	1187.7	1190.2
20°	1142.5	1145.0	1151.3	1168.9	1172.6
22.5°	1112.4	1118.7	1127.5	1147.5	1151.3
25°	1084.8	1089.8	1102.4	1123.7	1130.0
27.5°	1051.0	1058.5	1074.8	1097.4	1106.1
30°	1017.1	1024.6	1044.7	1071.0	1078.6
32.5°	980.7	992.0	1013.3	1040.9	1049.7
35°	943.1	953.1	978.2	1010.8	1020.9
37.5°	901.7	915.5	943.1	978.2	990.8
40°	861.6	876.6	908.0	945.6	960.7
42.5°	821.5	836.5	871.6	914.3	929.3
45°	776.3	792.6	832.7	877.9	894.2
47.5°	731.2	751.2	795.1	842.8	860.3
50°	684.8	707.3	755.0	805.2	825.2
52.5°	643.4	664.7	714.9	768.8	787.6
55°	595.7	619.5	674.7	729.9	751.2
57.5°	546.8	573.1	632.1	692.3	713.6
60°	499.1	528.0	593.2	653.4	677.2
62.5°	452.7	481.6	549.3	612.0	635.8
65°	402.6	436.4	506.7	570.6	593.2
67.5°	354.9	391.3	465.3	528.0	550.6
70°	308.5	343.6	422.6	484.1	506.7
72.5°	258.4	298.5	377.5	441.5	465.3
75°	208.2	255.8	333.6	396.3	418.9
77.5°	161.8	210.7	288.5	339.9	351.2
80°	119.1	169.3	237.0	273.4	287.2
82.5°	76.5	126.7	180.6	206.9	218.2
85°	42.6	84.0	117.9	132.9	138.0
87.5°	17.6	36.4	47.7	53.9	53.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)