

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: P310876

Luminaire Tested: **24FCZ2-50HE-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: P310876  
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: 24FCZ2-50HE-UNV-L82765-CP125-W2A-U-6500K  
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET  
Light Source: (336) 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**

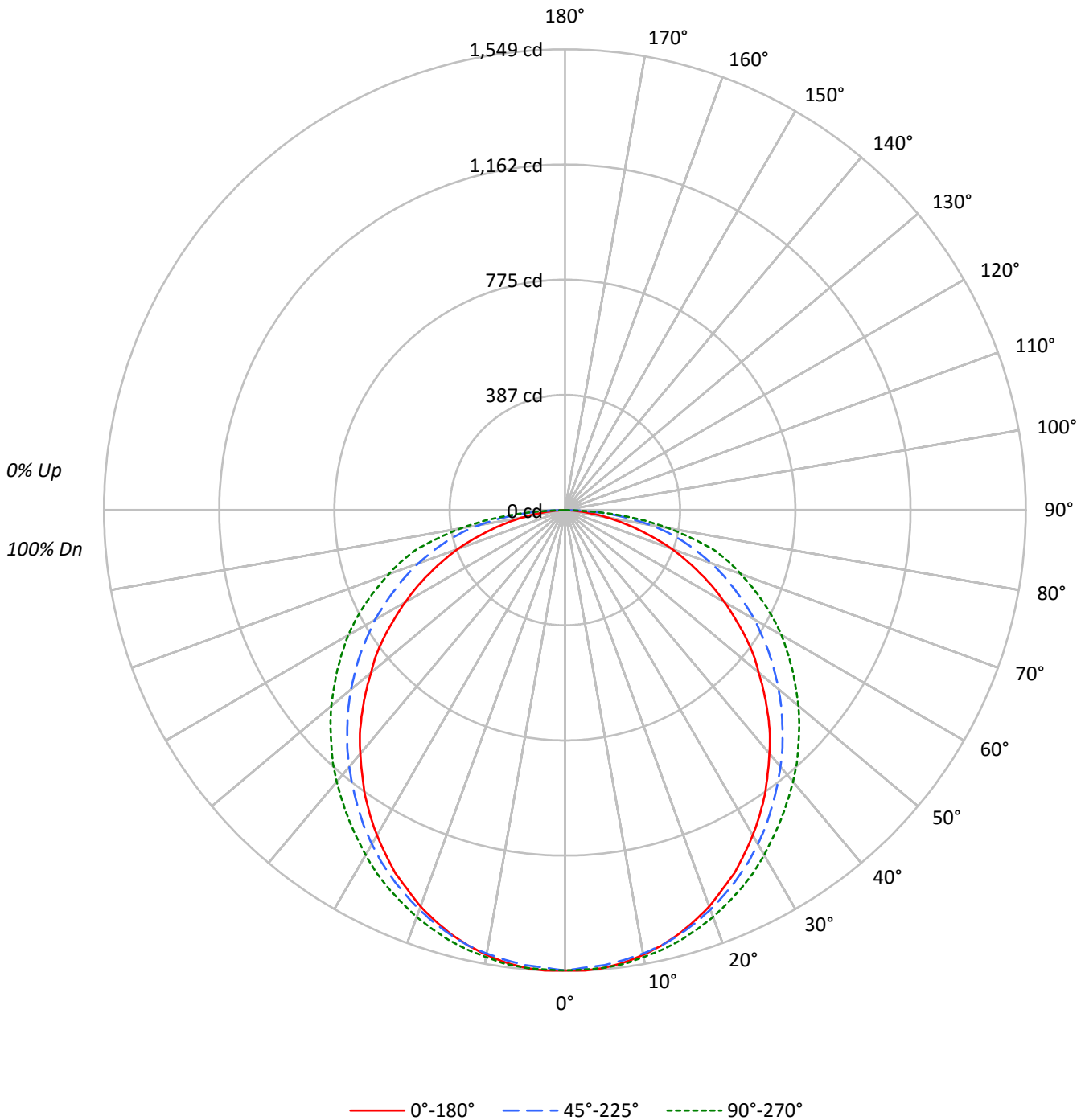
Lumens per Lamp: N/A  
Luminaire Lumens: 4693.0 lumens  
Efficiency: N/A  
Efficacy: 117.0 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 40.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: P310876

CATALOG NUMBER: 24FCZ2-50HE-UNV-L82765-CP125-W2A-U-6500K

### Luminous Intensity Polar Plot





TEST NUMBER: P310876

CATALOG NUMBER: 24FCZ2-50HE-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°	2082	2082	2082
5°	2086	2074	2086
10°	2074	2068	2085
15°	2056	2060	2087
20°	2031	2047	2084
25°	2000	2032	2083
30°	1962	2015	2080
35°	1923	1995	2082
40°	1879	1980	2095
45°	1834	1967	2112
50°	1780	1962	2144
55°	1735	1965	2188
60°	1668	1982	2263
65°	1591	2003	2345
70°	1507	2064	2474
75°	1344	2153	2704
80°	1146	2280	2763
85°	817	2260	2644



TEST NUMBER: P310876

CATALOG NUMBER: 24FCZ2-50HE-UNV-L82765-CP125-W2A-U-6500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	146.5	3.1
10°-20°	418.8	8.9
20°-30°	632.6	13.5
30°-40°	762.4	16.2
40°-50°	800.4	17.1
50°-60°	748.8	16.0
60°-70°	618.4	13.2
70°-80°	421.4	9.0
80°-90°	143.7	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°	1197.9	25.5
0°-40°	1960.3	41.8
0°-60°	3509.5	74.8
0°-90°	4693.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4693.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1548	1548	1548	1548	1548	
5°	1545	1543	1535	1545	1545	147
15°	1476	1478	1479	1495	1498	416
25°	1347	1353	1369	1395	1403	620
35°	1171	1183	1214	1255	1267	732
45°	964	984	1034	1090	1110	743
55°	740	769	838	906	933	660
65°	500	542	629	708	736	496
75°	258	318	414	492	520	276
85°	53	104	146	165	171	66
90°	0	0	0	0	0	



TEST NUMBER: P310876

CATALOG NUMBER: 24FCZ2-50HE-UNV-L82765-CP125-W2A-U-6500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1547.7	1547.7	1547.7	1547.7	1547.7
2.5°	1549.3	1547.7	1539.9	1547.7	1546.2
5°	1544.6	1543.0	1535.3	1544.6	1544.6
7.5°	1533.7	1533.7	1525.9	1536.8	1538.4
10°	1518.1	1518.1	1513.5	1525.9	1525.9
12.5°	1499.4	1499.4	1499.4	1511.9	1513.5
15°	1476.1	1477.6	1479.2	1494.8	1497.9
17.5°	1448.1	1451.2	1455.8	1474.5	1477.6
20°	1418.5	1421.6	1429.4	1451.2	1455.8
22.5°	1381.1	1388.9	1399.8	1424.7	1429.4
25°	1346.9	1353.1	1368.6	1395.1	1402.9
27.5°	1304.8	1314.2	1334.4	1362.4	1373.3
30°	1262.8	1272.1	1297.0	1329.7	1339.1
32.5°	1217.6	1231.6	1258.1	1292.4	1303.3
35°	1170.9	1183.4	1214.5	1255.0	1267.4
37.5°	1119.5	1136.6	1170.9	1214.5	1230.1
40°	1069.7	1088.4	1127.3	1174.0	1192.7
42.5°	1019.9	1038.6	1082.2	1135.1	1153.8
45°	963.8	984.1	1033.9	1089.9	1110.2
47.5°	907.8	932.7	987.2	1046.3	1068.1
50°	850.2	878.2	937.3	999.6	1024.5
52.5°	798.8	825.2	887.5	954.5	977.8
55°	739.6	769.2	837.7	906.2	932.7
57.5°	678.9	711.6	784.8	859.5	886.0
60°	619.7	655.5	736.5	811.2	840.8
62.5°	562.1	597.9	682.0	759.8	789.4
65°	499.8	541.9	629.0	708.5	736.5
67.5°	440.6	485.8	577.7	655.5	683.5
70°	383.0	426.6	524.7	601.0	629.0
72.5°	320.8	370.6	468.7	548.1	577.7
75°	258.5	317.6	414.2	492.0	520.1
77.5°	200.9	261.6	358.1	422.0	436.0
80°	147.9	210.2	294.3	339.4	356.6
82.5°	95.0	157.3	224.2	256.9	270.9
85°	52.9	104.3	146.4	165.0	171.3
87.5°	21.8	45.2	59.2	67.0	67.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)