

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: P309741

Luminaire Tested: **24FCZ2-70HE-UNV-L82765-HRP-CA125-W2A-U-5700K**

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: P309741
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-70HE-UNV-L82765-HRP-CA125-W2A-U-5700K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 5700K 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: 5080.0 lumens
Efficiency: N/A
Efficacy: 85.7 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

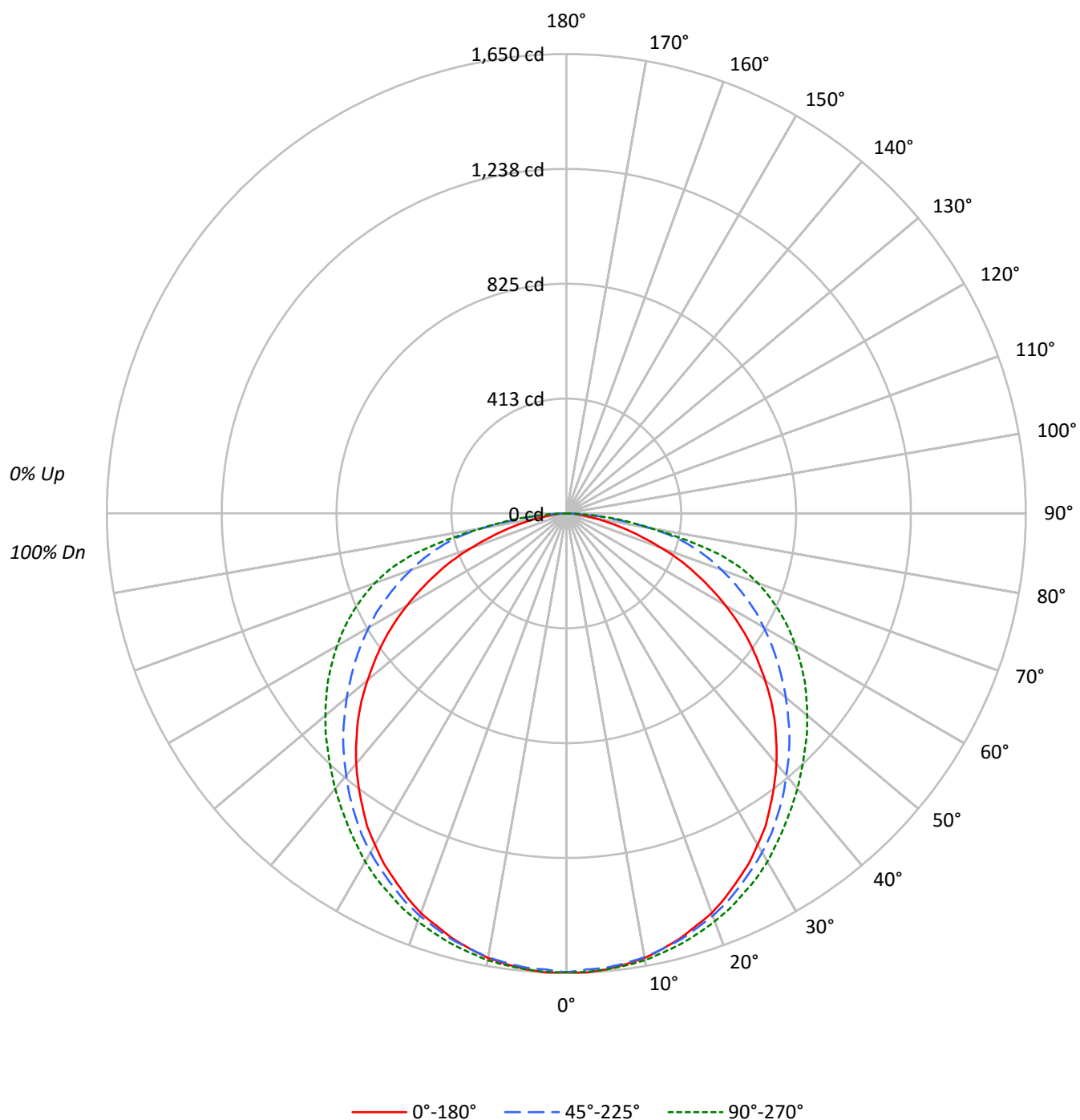
Input Watts (W): 59.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P309741

CATALOG NUMBER: 24FCZ2-70HE-UNV-L82765-HRP-CA125-W2A-U-5700K

Luminous Intensity Polar Plot





TEST NUMBER: P309741

CATALOG NUMBER: 24FCZ2-70HE-UNV-L82765-HRP-CA125-W2A-U-5700K

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	101	96	93	96	93	90		92	90	87		82
2	98	89	82	76	95	87	80	75	83	78	73		80	75	71		67
3	89	78	69	62	86	76	68	62	73	66	61		70	64	59		56
4	81	68	59	52	79	67	59	52	65	57	51		62	56	50		48
5	74	61	52	45	72	60	51	45	58	50	44		56	49	44		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	63	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	36	30	57	44	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	24		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2218	2218	2218
5°	2220	2212	2220
10°	2214	2211	2226
15°	2201	2207	2228
20°	2186	2202	2232
25°	2160	2191	2235
30°	2135	2184	2243
35°	2099	2173	2246
40°	2062	2159	2267
45°	2015	2157	2303
50°	1950	2155	2364
55°	1881	2170	2449
60°	1774	2203	2558
65°	1639	2255	2702
70°	1431	2334	2878
75°	1161	2454	2974
80°	857	2406	2406
85°	656	1772	2002



TEST NUMBER: P309741

CATALOG NUMBER: 24FCZ2-70HE-UNV-L82765-HRP-CA125-W2A-U-5700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	156.1	3.1
10°-20°	448.4	8.8
20°-30°	682.6	13.4
30°-40°	828.8	16.3
40°-50°	875.6	17.2
50°-60°	826.3	16.3
60°-70°	687.0	13.5
70°-80°	452.0	8.9
80°-90°	123.2	2.4
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°	1287.1	25.3
0°-40°	2115.9	41.7
0°-60°	3817.8	75.2
0°-90°	5080.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5080.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1648	1648	1648	1648	1648	
5°	1644	1644	1638	1644	1644	156
15°	1580	1582	1584	1599	1599	446
25°	1455	1463	1476	1502	1506	671
35°	1278	1293	1323	1357	1368	800
45°	1059	1080	1134	1189	1210	816
55°	802	836	925	1012	1044	714
65°	515	574	708	812	849	509
75°	223	325	472	559	572	241
85°	42	94	115	128	130	52
90°	0	0	0	0	0	



TEST NUMBER: P309741

CATALOG NUMBER: 24FCZ2-70HE-UNV-L82765-HRP-CA125-W2A-U-5700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1648.2	1648.2	1648.2	1648.2	1648.2
2.5°	1650.3	1648.2	1639.7	1648.2	1648.2
5°	1644.0	1644.0	1637.6	1644.0	1644.0
7.5°	1633.3	1633.3	1629.1	1637.6	1637.6
10°	1620.6	1620.6	1618.4	1629.1	1629.1
12.5°	1601.4	1603.5	1601.4	1614.2	1614.2
15°	1580.2	1582.3	1584.4	1599.3	1599.3
17.5°	1552.5	1556.8	1561.0	1578.0	1580.2
20°	1527.0	1529.1	1537.6	1556.8	1558.9
22.5°	1493.0	1499.3	1510.0	1529.1	1535.5
25°	1454.7	1463.2	1475.9	1501.5	1505.7
27.5°	1418.5	1424.9	1441.9	1469.6	1478.1
30°	1373.9	1384.5	1405.8	1433.4	1444.0
32.5°	1331.3	1342.0	1367.5	1397.3	1405.8
35°	1278.2	1293.0	1322.8	1356.8	1367.5
37.5°	1227.1	1242.0	1278.2	1316.4	1329.2
40°	1174.0	1191.0	1229.2	1273.9	1290.9
42.5°	1116.5	1139.9	1182.5	1231.4	1250.5
45°	1059.1	1080.4	1133.5	1188.8	1210.1
47.5°	997.4	1023.0	1080.4	1146.3	1171.8
50°	931.5	963.4	1029.3	1101.6	1129.3
52.5°	865.6	901.7	976.2	1057.0	1086.8
55°	801.8	835.8	925.1	1012.3	1044.2
57.5°	731.6	774.1	872.0	965.5	997.4
60°	659.3	706.1	818.8	916.6	950.6
62.5°	587.0	640.1	767.7	865.6	901.7
65°	514.7	574.2	708.2	812.4	848.6
67.5°	444.5	510.4	652.9	757.1	793.3
70°	363.7	446.6	593.4	695.4	731.6
72.5°	289.2	384.9	535.9	631.6	663.5
75°	223.3	325.4	472.1	559.3	572.1
77.5°	163.8	265.8	406.2	436.0	438.1
80°	110.6	212.7	310.5	306.2	310.5
82.5°	72.3	159.5	195.7	219.1	221.2
85°	42.5	93.6	114.8	127.6	129.7
87.5°	21.3	31.9	40.4	42.5	46.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)