

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: P310459

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-RDP-CA125-W2A-U-5000K**

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: P310459
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: 24FCZ2-75HE-UNV-L82765-RDP-CA125-W2A-U-5000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET
Light Source: (336) 5000K 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: 4756.0 lumens
Efficiency: N/A
Efficacy: 74.0 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

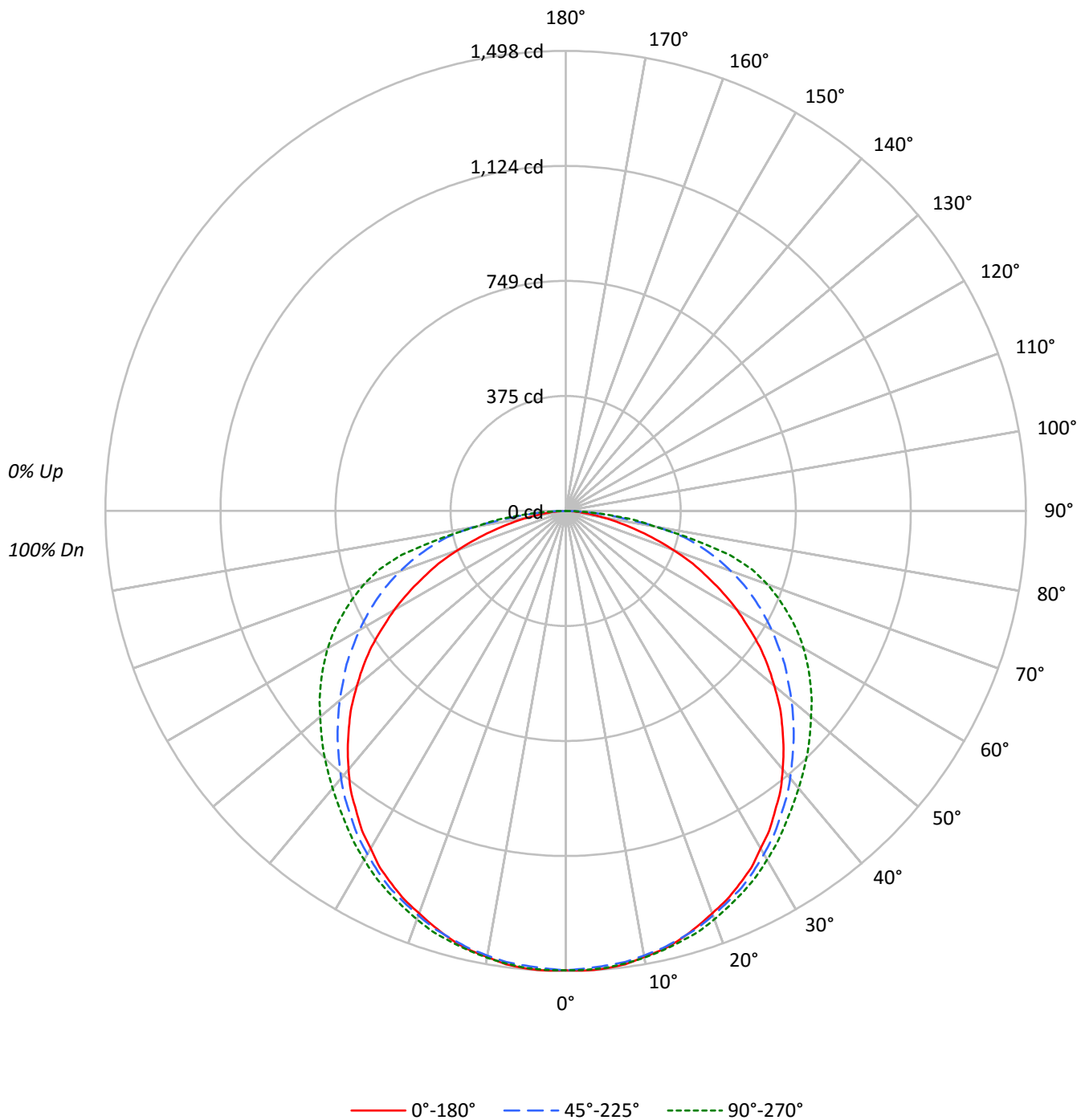
Input Watts (W): 64.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P310459

CATALOG NUMBER: 24FCZ2-75HE-UNV-L82765-RDP-CA125-W2A-U-5000K

Luminous Intensity Polar Plot





TEST NUMBER: P310459

CATALOG NUMBER: 24FCZ2-75HE-UNV-L82765-RDP-CA125-W2A-U-5000K

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	50	30	10	50	30	10
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	93	89	92	89	87	88	86	84	82		
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67		
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56		
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47		
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40		
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35		
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31		
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27		
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24		
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2012	2012	2012
5°	2020	2007	2017
10°	2014	2008	2018
15°	2011	2008	2021
20°	1996	2006	2027
25°	1989	2010	2031
30°	1972	2005	2038
35°	1953	1999	2046
40°	1931	1997	2072
45°	1899	1998	2119
50°	1857	2010	2183
55°	1810	2042	2280
60°	1733	2082	2406
65°	1622	2155	2554
70°	1476	2255	2747
75°	1251	2379	2870
80°	987	2394	2321
85°	729	1822	2039



TEST NUMBER: P310459

CATALOG NUMBER: 24FCZ2-75HE-UNV-L82765-RDP-CA125-W2A-U-5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.9	3.0
10°-20°	408.3	8.6
20°-30°	624.4	13.1
30°-40°	763.3	16.0
40°-50°	813.5	17.1
50°-60°	777.9	16.4
60°-70°	658.9	13.9
70°-80°	442.9	9.3
80°-90°	124.9	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°	1174.6	24.7
0°-40°	1937.9	40.7
0°-60°	3529.3	74.2
0°-90°	4756.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4756.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1496	1496	1496	1496	1496	
5°	1496	1493	1486	1493	1493	142
15°	1444	1444	1441	1453	1451	407
25°	1340	1345	1354	1366	1368	618
35°	1189	1198	1217	1241	1246	745
45°	998	1014	1050	1095	1114	770
55°	771	800	870	939	972	687
65°	510	561	677	767	802	506
75°	241	328	458	536	552	258
85°	47	97	118	127	132	58
90°	0	0	0	0	0	



TEST NUMBER: P310459

CATALOG NUMBER: 24FCZ2-75HE-UNV-L82765-RDP-CA125-W2A-U-5000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1495.6	1495.6	1495.6	1495.6	1495.6
2.5°	1498.0	1498.0	1490.9	1495.6	1495.6
5°	1495.6	1493.3	1486.2	1493.3	1493.3
7.5°	1488.5	1486.2	1481.5	1488.5	1486.2
10°	1474.4	1474.4	1469.7	1476.8	1476.8
12.5°	1462.6	1460.2	1457.9	1467.3	1465.0
15°	1443.7	1443.7	1441.4	1453.2	1450.8
17.5°	1420.1	1422.5	1424.9	1434.3	1436.7
20°	1394.2	1398.9	1401.3	1415.4	1415.4
22.5°	1370.6	1373.0	1377.7	1391.8	1391.8
25°	1339.9	1344.6	1354.1	1365.9	1368.2
27.5°	1309.3	1311.6	1323.4	1339.9	1342.3
30°	1269.2	1276.2	1290.4	1309.3	1311.6
32.5°	1233.8	1240.9	1257.4	1276.2	1281.0
35°	1189.0	1198.4	1217.3	1240.9	1245.6
37.5°	1148.8	1155.9	1179.5	1205.5	1212.5
40°	1099.3	1113.5	1137.1	1167.7	1179.5
42.5°	1049.8	1063.9	1092.2	1132.3	1146.5
45°	997.9	1014.4	1049.8	1094.6	1113.5
47.5°	946.0	964.8	1004.9	1056.8	1078.1
50°	887.0	910.6	960.1	1019.1	1042.7
52.5°	830.4	858.7	912.9	979.0	1009.7
55°	771.4	799.7	870.5	938.9	971.9
57.5°	705.4	743.1	820.9	898.8	934.2
60°	644.0	679.4	773.8	858.7	894.1
62.5°	578.0	625.1	726.6	816.2	851.6
65°	509.6	561.4	677.0	766.7	802.1
67.5°	448.2	504.8	627.5	717.1	752.5
70°	375.1	445.9	573.2	662.9	698.3
72.5°	306.7	384.5	516.6	603.9	636.9
75°	240.6	327.9	457.7	535.5	552.0
77.5°	179.3	271.3	396.3	429.3	417.5
80°	127.4	217.0	309.0	292.5	299.6
82.5°	82.6	165.1	191.1	217.0	224.1
85°	47.2	96.7	118.0	127.4	132.1
87.5°	21.2	35.4	47.2	47.2	44.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)