

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: P310486

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-RDP-CP250-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: P310486
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-CP250-W2A-U-5000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" POLYCARB 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: 4430.0 lumens
Efficiency: N/A
Efficacy: 68.9 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

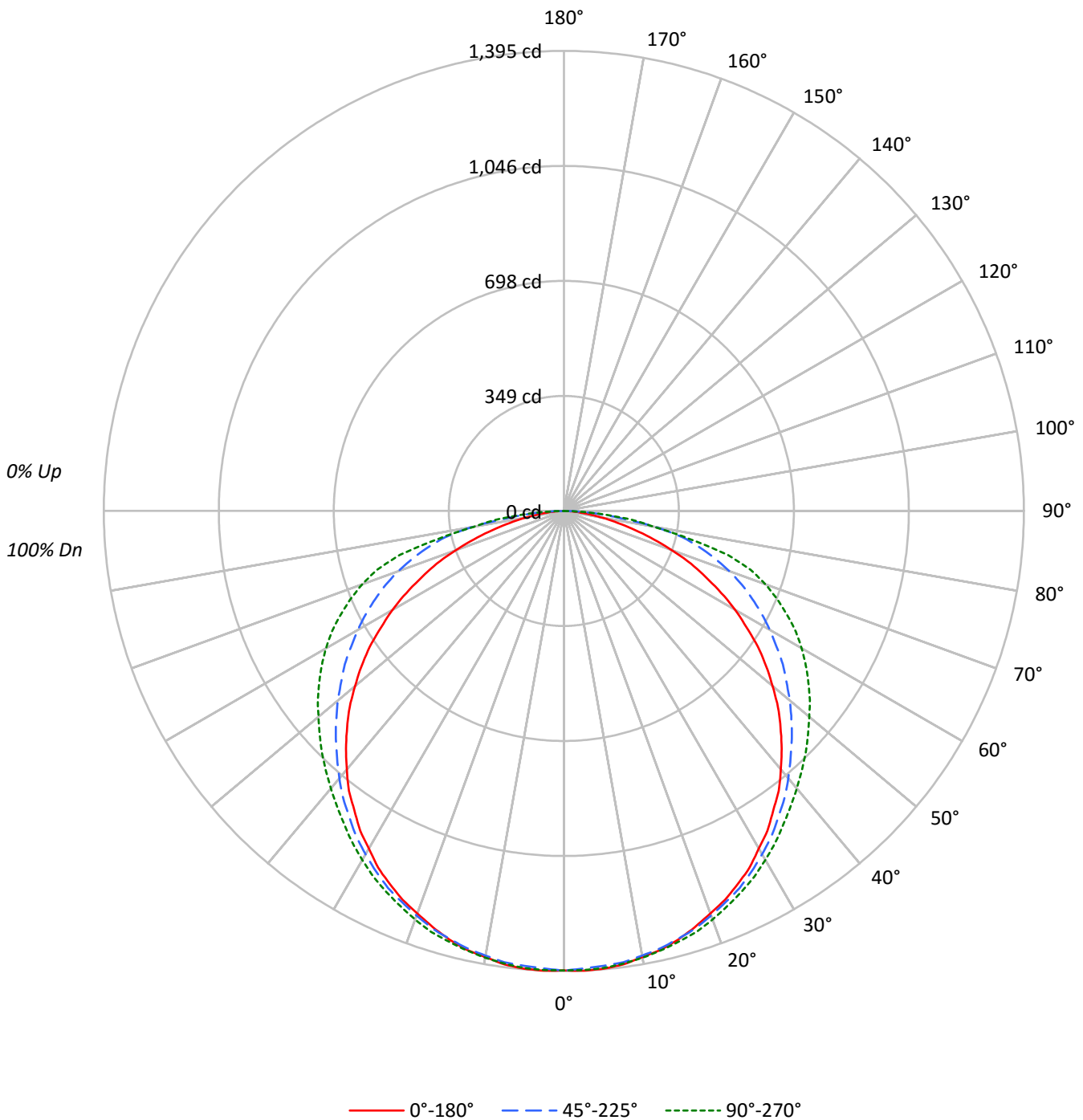
Input Watts (W): 64.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P310486

CATALOG NUMBER: 24FCZ2-75HE-UNV-L82765-RDP-CP250-W2A-U-5000K

Luminous Intensity Polar Plot





TEST NUMBER: P310486

CATALOG NUMBER: 24FCZ2-75HE-UNV-L82765-RDP-CP250-W2A-U-5000K

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	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°	1874	1874	1874
5°	1882	1870	1879
10°	1876	1870	1879
15°	1873	1870	1882
20°	1859	1869	1888
25°	1853	1873	1892
30°	1837	1867	1898
35°	1819	1862	1906
40°	1799	1860	1930
45°	1769	1861	1973
50°	1729	1872	2033
55°	1685	1902	2124
60°	1614	1939	2241
65°	1511	2008	2379
70°	1375	2101	2559
75°	1165	2216	2673
80°	920	2231	2163
85°	678	1697	1900



TEST NUMBER: P310486

CATALOG NUMBER: 24FCZ2-75HE-UNV-L82765-RDP-CP250-W2A-U-5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.1	3.0
10°-20°	380.3	8.6
20°-30°	581.6	13.1
30°-40°	711.0	16.0
40°-50°	757.8	17.1
50°-60°	724.5	16.4
60°-70°	613.8	13.9
70°-80°	412.5	9.3
80°-90°	116.4	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°	1094.1	24.7
0°-40°	1805.1	40.7
0°-60°	3287.4	74.2
0°-90°	4430.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4430.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1393	1393	1393	1393	1393	
5°	1393	1391	1384	1391	1391	132
15°	1345	1345	1343	1354	1351	379
25°	1248	1252	1261	1272	1274	575
35°	1108	1116	1134	1156	1160	694
45°	930	945	978	1020	1037	717
55°	718	745	811	874	905	640
65°	475	523	631	714	747	471
75°	224	305	426	499	514	240
85°	44	90	110	119	123	54
90°	0	0	0	0	0	



TEST NUMBER: P310486

CATALOG NUMBER: 24FCZ2-75HE-UNV-L82765-RDP-CP250-W2A-U-5000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1393.1	1393.1	1393.1	1393.1	1393.1
2.5°	1395.3	1395.3	1388.7	1393.1	1393.1
5°	1393.1	1390.9	1384.3	1390.9	1390.9
7.5°	1386.5	1384.3	1379.9	1386.5	1384.3
10°	1373.3	1373.3	1368.9	1375.5	1375.5
12.5°	1362.3	1360.1	1358.0	1366.7	1364.5
15°	1344.8	1344.8	1342.6	1353.6	1351.4
17.5°	1322.8	1325.0	1327.2	1336.0	1338.2
20°	1298.6	1303.0	1305.2	1318.4	1318.4
22.5°	1276.6	1278.8	1283.2	1296.4	1296.4
25°	1248.1	1252.5	1261.3	1272.3	1274.5
27.5°	1219.5	1221.7	1232.7	1248.1	1250.3
30°	1182.2	1188.8	1201.9	1219.5	1221.7
32.5°	1149.2	1155.8	1171.2	1188.8	1193.2
35°	1107.5	1116.2	1133.8	1155.8	1160.2
37.5°	1070.1	1076.7	1098.7	1122.8	1129.4
40°	1024.0	1037.1	1059.1	1087.7	1098.7
42.5°	977.8	991.0	1017.4	1054.7	1067.9
45°	929.5	944.9	977.8	1019.6	1037.1
47.5°	881.1	898.7	936.1	984.4	1004.2
50°	826.2	848.2	894.3	949.2	971.2
52.5°	773.5	799.8	850.4	911.9	940.5
55°	718.5	744.9	810.8	874.5	905.3
57.5°	657.0	692.2	764.7	837.2	870.1
60°	599.9	632.8	720.7	799.8	832.8
62.5°	538.3	582.3	676.8	760.3	793.2
65°	474.6	523.0	630.6	714.1	747.1
67.5°	417.5	470.2	584.5	668.0	700.9
70°	349.4	415.3	534.0	617.5	650.4
72.5°	285.7	358.2	481.2	562.5	593.3
75°	224.1	305.4	426.3	498.8	514.2
77.5°	167.0	252.7	369.2	399.9	388.9
80°	118.7	202.2	287.9	272.5	279.1
82.5°	76.9	153.8	178.0	202.2	208.7
85°	43.9	90.1	109.9	118.7	123.1
87.5°	19.8	33.0	43.9	43.9	41.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)