

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: P310456

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-RDP-CA125-W2A-U-3500K**

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: P310456
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-3500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET
Light Source: (336) 3500K 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: 4511.0 lumens
Efficiency: N/A
Efficacy: 71.5 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

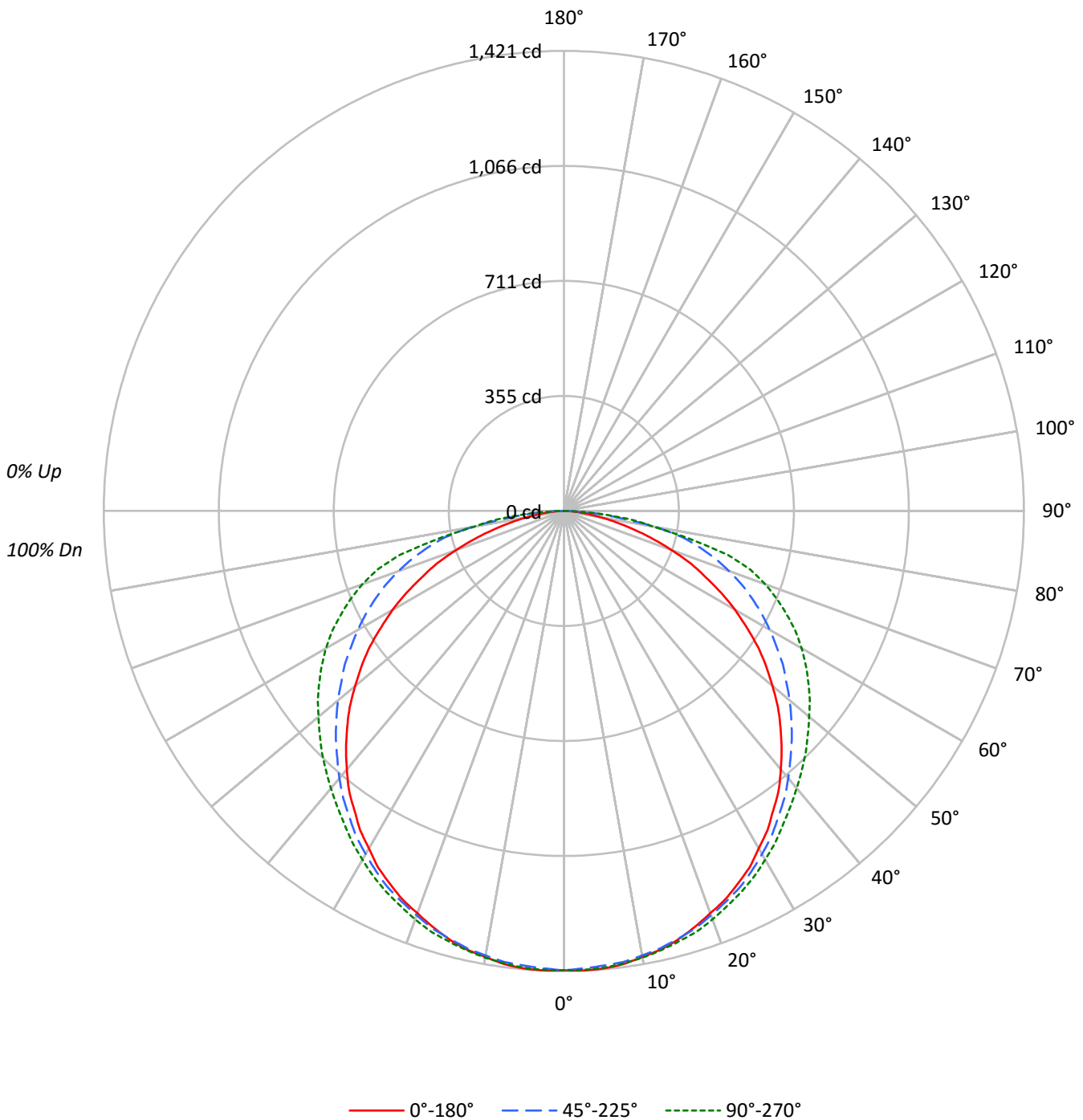
Input Watts (W): 63.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P310456

CATALOG NUMBER: 24FCZ2-75HE-UNV-L82765-RDP-CA125-W2A-U-3500K

Luminous Intensity Polar Plot





TEST NUMBER: P310456

CATALOG NUMBER: 24FCZ2-75HE-UNV-L82765-RDP-CA125-W2A-U-3500K

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°	1909	1909	1909
5°	1916	1904	1913
10°	1911	1905	1914
15°	1908	1904	1917
20°	1893	1903	1922
25°	1887	1907	1927
30°	1870	1901	1933
35°	1852	1896	1940
40°	1831	1894	1965
45°	1801	1895	2010
50°	1761	1906	2070
55°	1716	1937	2163
60°	1644	1975	2282
65°	1539	2045	2422
70°	1400	2139	2605
75°	1186	2257	2722
80°	936	2271	2202
85°	692	1727	1934



TEST NUMBER: P310456

CATALOG NUMBER: 24FCZ2-75HE-UNV-L82765-RDP-CA125-W2A-U-3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.6	3.0
10°-20°	387.3	8.6
20°-30°	592.2	13.1
30°-40°	724.0	16.0
40°-50°	771.6	17.1
50°-60°	737.8	16.4
60°-70°	625.0	13.9
70°-80°	420.0	9.3
80°-90°	118.5	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°	1114.1	24.7
0°-40°	1838.1	40.7
0°-60°	3347.5	74.2
0°-90°	4511.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4511.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1419	1419	1419	1419	1419	
5°	1419	1416	1410	1416	1416	135
15°	1369	1369	1367	1378	1376	386
25°	1271	1275	1284	1296	1298	586
35°	1128	1137	1155	1177	1181	706
45°	946	962	996	1038	1056	730
55°	732	758	826	890	922	652
65°	483	532	642	727	761	480
75°	228	311	434	508	524	244
85°	45	92	112	121	125	55
90°	0	0	0	0	0	



TEST NUMBER: P310456

CATALOG NUMBER: 24FCZ2-75HE-UNV-L82765-RDP-CA125-W2A-U-3500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1418.6	1418.6	1418.6	1418.6	1418.6
2.5°	1420.8	1420.8	1414.1	1418.6	1418.6
5°	1418.6	1416.3	1409.6	1416.3	1416.3
7.5°	1411.9	1409.6	1405.2	1411.9	1409.6
10°	1398.4	1398.4	1394.0	1400.7	1400.7
12.5°	1387.3	1385.0	1382.8	1391.7	1389.5
15°	1369.4	1369.4	1367.1	1378.3	1376.1
17.5°	1347.0	1349.2	1351.5	1360.4	1362.6
20°	1322.4	1326.8	1329.1	1342.5	1342.5
22.5°	1300.0	1302.2	1306.7	1320.1	1320.1
25°	1270.9	1275.4	1284.3	1295.5	1297.8
27.5°	1241.8	1244.1	1255.2	1270.9	1273.1
30°	1203.8	1210.5	1223.9	1241.8	1244.1
32.5°	1170.2	1176.9	1192.6	1210.5	1215.0
35°	1127.7	1136.7	1154.6	1176.9	1181.4
37.5°	1089.7	1096.4	1118.8	1143.4	1150.1
40°	1042.7	1056.1	1078.5	1107.6	1118.8
42.5°	995.7	1009.1	1036.0	1074.0	1087.4
45°	946.5	962.1	995.7	1038.2	1056.1
47.5°	897.2	915.1	953.2	1002.4	1022.5
50°	841.3	863.7	910.7	966.6	989.0
52.5°	787.6	814.5	865.9	928.6	957.7
55°	731.7	758.5	825.6	890.5	921.9
57.5°	669.0	704.8	778.7	852.5	886.1
60°	610.8	644.4	733.9	814.5	848.0
62.5°	548.2	592.9	689.2	774.2	807.7
65°	483.3	532.5	642.2	727.2	760.8
67.5°	425.1	478.8	595.2	680.2	713.8
70°	355.8	422.9	543.7	628.7	662.3
72.5°	290.9	364.7	490.0	572.8	604.1
75°	228.2	311.0	434.1	507.9	523.6
77.5°	170.1	257.3	375.9	407.2	396.0
80°	120.8	205.9	293.1	277.5	284.2
82.5°	78.3	156.6	181.2	205.9	212.6
85°	44.8	91.7	111.9	120.8	125.3
87.5°	20.1	33.6	44.8	44.8	42.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)