

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: P310455

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-RDP-CA125-W2A-U-3000K**

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: P310455
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-3000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET
Light Source: (336) 3000K 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: 4361.0 lumens
Efficiency: N/A
Efficacy: 69.9 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

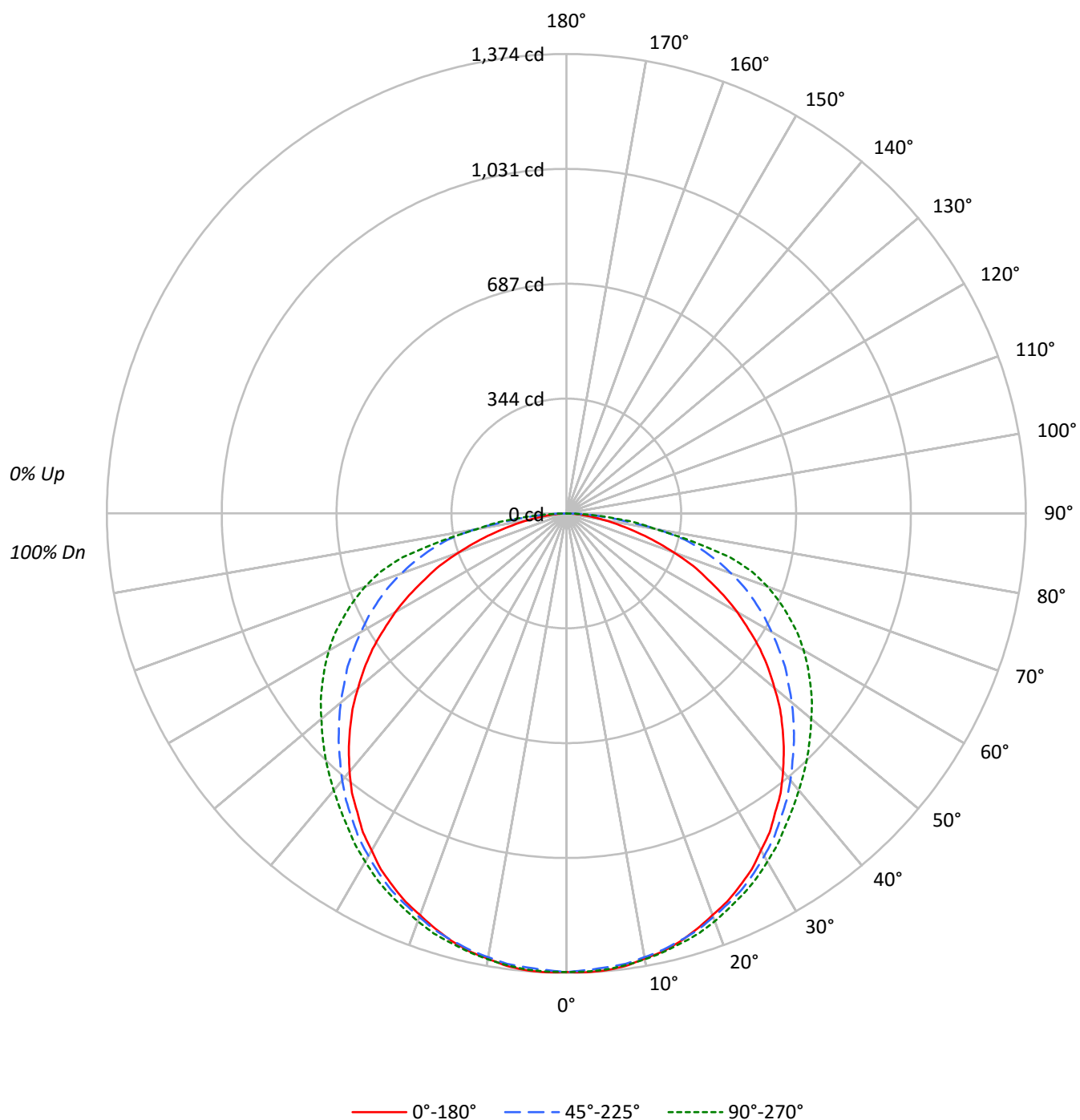
Input Watts (W): 62.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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°	1845	1845	1845
5°	1852	1841	1849
10°	1847	1841	1850
15°	1844	1841	1853
20°	1830	1840	1858
25°	1824	1843	1863
30°	1808	1838	1869
35°	1791	1833	1876
40°	1770	1831	1900
45°	1741	1832	1943
50°	1702	1843	2001
55°	1659	1872	2091
60°	1589	1909	2206
65°	1487	1976	2342
70°	1353	2068	2519
75°	1147	2181	2632
80°	905	2196	2128
85°	668	1670	1870



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.1	3.0
10°-20°	374.4	8.6
20°-30°	572.5	13.1
30°-40°	699.9	16.0
40°-50°	746.0	17.1
50°-60°	713.3	16.4
60°-70°	604.2	13.9
70°-80°	406.1	9.3
80°-90°	114.5	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°	1077.0	24.7
0°-40°	1776.9	40.7
0°-60°	3236.2	74.2
0°-90°	4361.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4361.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1371	1371	1371	1371	1371	
5°	1371	1369	1363	1369	1369	130
15°	1324	1324	1322	1332	1330	373
25°	1229	1233	1242	1252	1255	566
35°	1090	1099	1116	1138	1142	683
45°	915	930	963	1004	1021	706
55°	707	733	798	861	891	630
65°	467	515	621	703	736	464
75°	221	301	420	491	506	236
85°	43	89	108	117	121	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1371.4	1371.4	1371.4	1371.4	1371.4
2.5°	1373.6	1373.6	1367.1	1371.4	1371.4
5°	1371.4	1369.2	1362.8	1369.2	1369.2
7.5°	1364.9	1362.8	1358.4	1364.9	1362.8
10°	1351.9	1351.9	1347.6	1354.1	1354.1
12.5°	1341.1	1339.0	1336.8	1345.5	1343.3
15°	1323.8	1323.8	1321.7	1332.5	1330.3
17.5°	1302.2	1304.4	1306.5	1315.2	1317.3
20°	1278.4	1282.7	1284.9	1297.9	1297.9
22.5°	1256.8	1258.9	1263.3	1276.2	1276.2
25°	1228.6	1233.0	1241.6	1252.4	1254.6
27.5°	1200.5	1202.7	1213.5	1228.6	1230.8
30°	1163.8	1170.2	1183.2	1200.5	1202.7
32.5°	1131.3	1137.8	1152.9	1170.2	1174.6
35°	1090.2	1098.9	1116.2	1137.8	1142.1
37.5°	1053.4	1059.9	1081.6	1105.3	1111.8
40°	1008.0	1021.0	1042.6	1070.7	1081.6
42.5°	962.6	975.6	1001.5	1038.3	1051.3
45°	915.0	930.1	962.6	1003.7	1021.0
47.5°	867.4	884.7	921.5	969.1	988.5
50°	813.3	835.0	880.4	934.5	956.1
52.5°	761.4	787.4	837.1	897.7	925.8
55°	707.3	733.3	798.2	860.9	891.2
57.5°	646.8	681.4	752.8	824.1	856.6
60°	590.5	623.0	709.5	787.4	819.8
62.5°	530.0	573.2	666.2	748.4	780.9
65°	467.2	514.8	620.8	703.0	735.5
67.5°	411.0	462.9	575.4	657.6	690.0
70°	343.9	408.8	525.6	607.8	640.3
72.5°	281.2	352.6	473.7	553.8	584.0
75°	220.6	300.7	419.6	491.0	506.2
77.5°	164.4	248.8	363.4	393.7	382.9
80°	116.8	199.0	283.4	268.2	274.7
82.5°	75.7	151.4	175.2	199.0	205.5
85°	43.3	88.7	108.2	116.8	121.1
87.5°	19.5	32.4	43.3	43.3	41.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)