

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: P310469

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-RDP-CP125-W2A-U-5500K**

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: P310469
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-CP125-W2A-U-5500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET
Light Source: (336) 5500K 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: 4709.0 lumens
Efficiency: N/A
Efficacy: 72.9 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

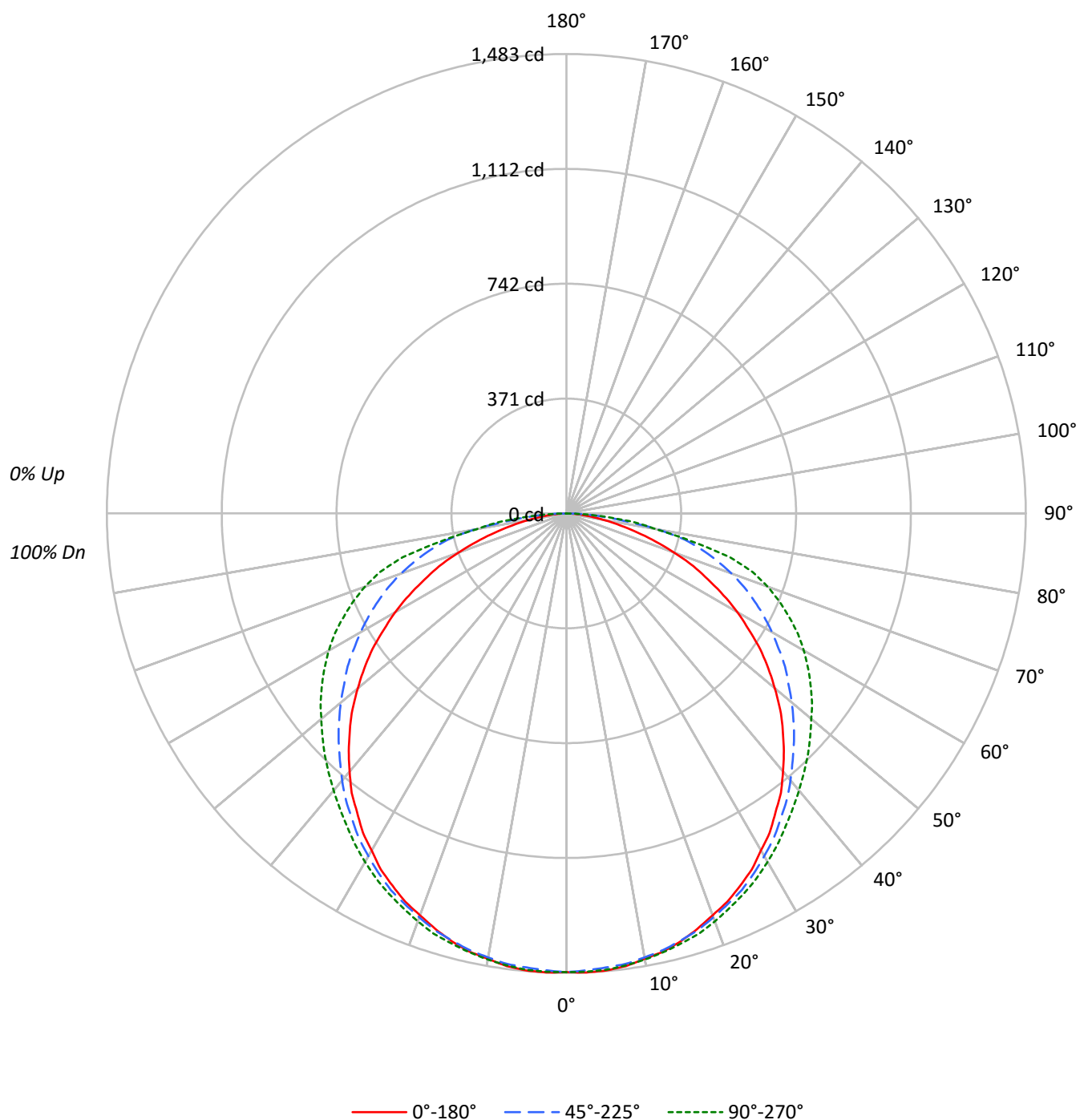
Input Watts (W): 64.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1992	1992	1992
5°	2000	1987	1997
10°	1994	1988	1998
15°	1991	1988	2001
20°	1977	1987	2007
25°	1970	1990	2011
30°	1952	1985	2018
35°	1934	1980	2026
40°	1912	1977	2051
45°	1880	1978	2098
50°	1838	1990	2161
55°	1792	2022	2257
60°	1716	2062	2382
65°	1606	2134	2528
70°	1461	2233	2720
75°	1238	2355	2842
80°	977	2371	2298
85°	721	1803	2019



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.5	3.0
10°-20°	404.3	8.6
20°-30°	618.2	13.1
30°-40°	755.8	16.0
40°-50°	805.5	17.1
50°-60°	770.2	16.4
60°-70°	652.4	13.9
70°-80°	438.5	9.3
80°-90°	123.7	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°	1163.0	24.7
0°-40°	1918.7	40.7
0°-60°	3494.4	74.2
0°-90°	4709.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4709.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1481	1481	1481	1481	1481	
5°	1481	1478	1472	1478	1478	141
15°	1430	1430	1427	1439	1436	403
25°	1327	1331	1341	1352	1355	611
35°	1177	1186	1205	1229	1233	737
45°	988	1004	1039	1084	1102	762
55°	764	792	862	930	962	680
65°	504	556	670	759	794	501
75°	238	325	453	530	547	255
85°	47	96	117	126	131	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1480.8	1480.8	1480.8	1480.8	1480.8
2.5°	1483.2	1483.2	1476.2	1480.8	1480.8
5°	1480.8	1478.5	1471.5	1478.5	1478.5
7.5°	1473.8	1471.5	1466.8	1473.8	1471.5
10°	1459.8	1459.8	1455.2	1462.2	1462.2
12.5°	1448.1	1445.8	1443.5	1452.8	1450.5
15°	1429.5	1429.5	1427.1	1438.8	1436.5
17.5°	1406.1	1408.4	1410.8	1420.1	1422.5
20°	1380.4	1385.1	1387.4	1401.4	1401.4
22.5°	1357.1	1359.4	1364.1	1378.1	1378.1
25°	1326.7	1331.4	1340.7	1352.4	1354.7
27.5°	1296.3	1298.7	1310.3	1326.7	1329.0
30°	1256.6	1263.6	1277.6	1296.3	1298.7
32.5°	1221.6	1228.6	1244.9	1263.6	1268.3
35°	1177.2	1186.5	1205.2	1228.6	1233.3
37.5°	1137.5	1144.5	1167.9	1193.6	1200.6
40°	1088.4	1102.5	1125.8	1156.2	1167.9
42.5°	1039.4	1053.4	1081.4	1121.1	1135.2
45°	988.0	1004.4	1039.4	1083.8	1102.5
47.5°	936.6	955.3	995.0	1046.4	1067.4
50°	878.2	901.6	950.6	1009.0	1032.4
52.5°	822.2	850.2	903.9	969.3	999.7
55°	763.8	791.8	861.9	929.6	962.3
57.5°	698.4	735.8	812.8	889.9	924.9
60°	637.7	672.7	766.1	850.2	885.2
62.5°	572.3	619.0	719.4	808.2	843.2
65°	504.5	555.9	670.4	759.1	794.1
67.5°	443.8	499.8	621.3	710.1	745.1
70°	371.4	441.5	567.6	656.3	691.4
72.5°	303.6	380.7	511.5	597.9	630.6
75°	238.2	324.7	453.1	530.2	546.6
77.5°	177.5	268.6	392.4	425.1	413.4
80°	126.1	214.9	306.0	289.6	296.6
82.5°	81.8	163.5	189.2	214.9	221.9
85°	46.7	95.8	116.8	126.1	130.8
87.5°	21.0	35.0	46.7	46.7	44.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)