

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: P311123

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-CA08-W2A-U-4000K**

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: P311123
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)
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-CA08-W2A-U-4000K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.08" ACRYLIC SHEET
Light Source: (336) 4000K 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: 6879.0 lumens
Efficiency: N/A
Efficacy: 108.3 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

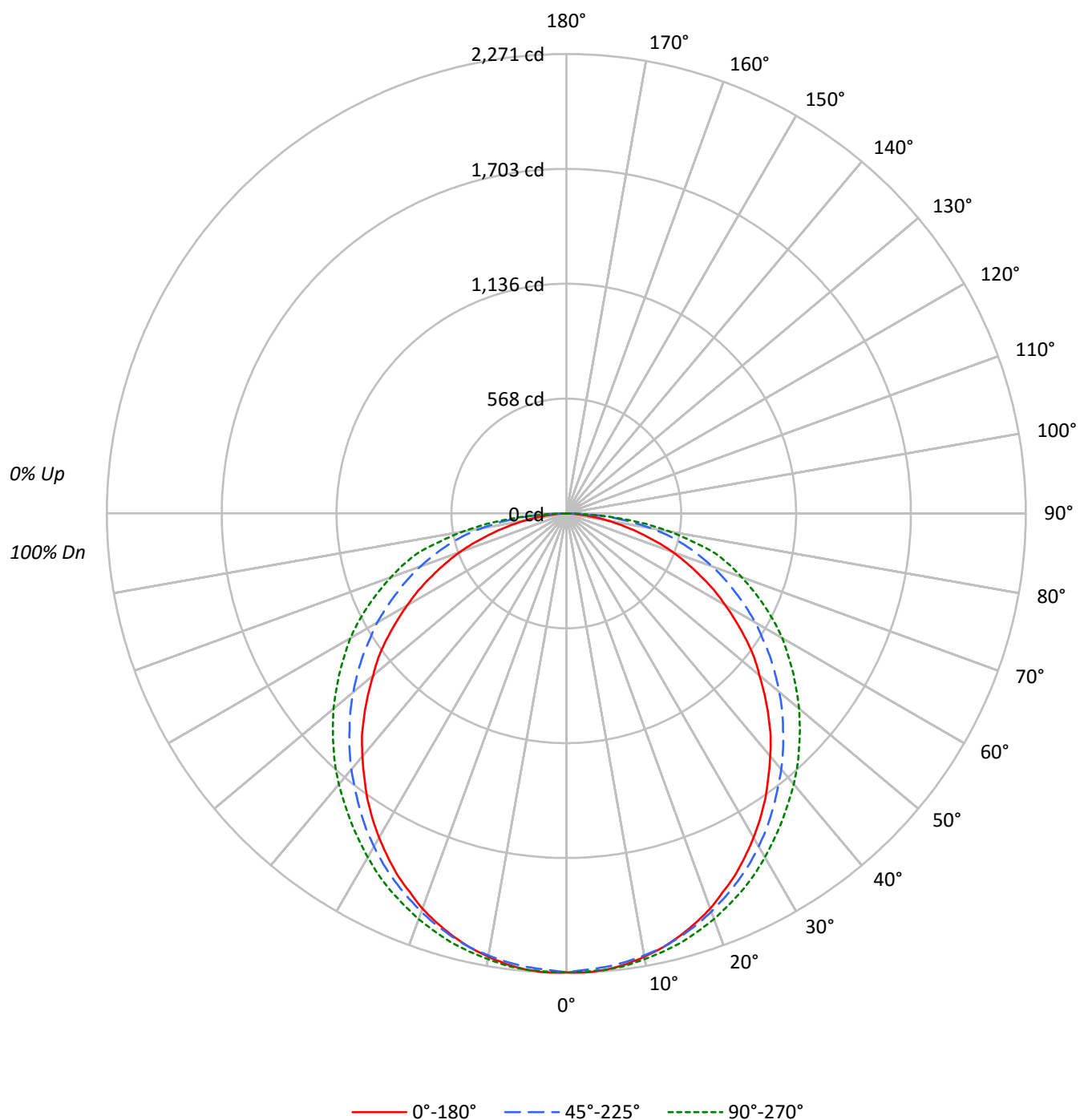
Input Watts (W): 63.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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		0
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		100
1	108	103	98	94	105	100	96	92	96	92	89		92	89	87		82
2	98	89	81	75	95	87	80	74	83	78	73		80	75	71		67
3	89	77	69	62	86	76	68	61	73	66	60		70	64	59		56
4	81	68	59	52	79	67	58	52	64	57	51		62	56	50		47
5	74	61	52	45	72	60	51	44	58	50	44		56	49	43		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	64	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	37	31	57	45	36	30	43	36	30		42	35	30		28
9	55	41	33	27	54	41	33	27	40	32	27		39	32	27		25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	25		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3052	3052	3052
5°	3058	3039	3058
10°	3040	3031	3056
15°	3014	3020	3058
20°	2977	3000	3056
25°	2931	2978	3053
30°	2876	2954	3049
35°	2819	2924	3052
40°	2754	2902	3071
45°	2688	2884	3096
50°	2609	2876	3144
55°	2543	2880	3207
60°	2444	2905	3317
65°	2332	2936	3437
70°	2209	3026	3627
75°	1970	3156	3963
80°	1680	3343	4050
85°	1198	3311	3876



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.7	3.1
10°-20°	613.9	8.9
20°-30°	927.2	13.5
30°-40°	1117.5	16.2
40°-50°	1173.2	17.1
50°-60°	1097.6	16.0
60°-70°	906.4	13.2
70°-80°	617.7	9.0
80°-90°	210.6	3.1
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°	1755.9	25.5
0°-40°	2873.4	41.8
0°-60°	5144.2	74.8
0°-90°	6879.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6879.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2269	2269	2269	2269	2269	
5°	2264	2262	2250	2264	2264	215
15°	2164	2166	2168	2191	2196	610
25°	1974	1983	2006	2045	2056	908
35°	1716	1735	1780	1840	1858	1073
45°	1413	1442	1516	1598	1627	1090
55°	1084	1128	1228	1328	1367	968
65°	733	794	922	1038	1080	727
75°	379	466	607	721	762	404
85°	78	153	214	242	251	97
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2268.6	2268.6	2268.6	2268.6	2268.6
2.5°	2270.9	2268.6	2257.2	2268.6	2266.4
5°	2264.1	2261.8	2250.4	2264.1	2264.1
7.5°	2248.1	2248.1	2236.7	2252.7	2254.9
10°	2225.3	2225.3	2218.4	2236.7	2236.7
12.5°	2197.9	2197.9	2197.9	2216.1	2218.4
15°	2163.6	2165.9	2168.2	2191.0	2195.6
17.5°	2122.6	2127.1	2134.0	2161.4	2165.9
20°	2079.2	2083.8	2095.2	2127.1	2134.0
22.5°	2024.4	2035.8	2051.8	2088.3	2095.2
25°	1974.2	1983.3	2006.2	2045.0	2056.4
27.5°	1912.6	1926.3	1956.0	1997.0	2013.0
30°	1851.0	1864.7	1901.2	1949.1	1962.8
32.5°	1784.8	1805.3	1844.1	1894.3	1910.3
35°	1716.3	1734.6	1780.2	1839.6	1857.8
37.5°	1641.0	1666.1	1716.3	1780.2	1803.0
40°	1568.0	1595.3	1652.4	1720.9	1748.3
42.5°	1494.9	1522.3	1586.2	1663.8	1691.2
45°	1412.8	1442.4	1515.5	1597.6	1627.3
47.5°	1330.6	1367.1	1447.0	1533.7	1565.7
50°	1246.2	1287.2	1374.0	1465.3	1501.8
52.5°	1170.8	1209.6	1300.9	1399.1	1433.3
55°	1084.1	1127.5	1227.9	1328.3	1367.1
57.5°	995.1	1043.0	1150.3	1259.8	1298.6
60°	908.4	960.9	1079.5	1189.1	1232.5
62.5°	823.9	876.4	999.7	1113.8	1157.1
65°	732.6	794.3	922.1	1038.5	1079.5
67.5°	645.9	712.1	846.7	960.9	1001.9
70°	561.5	625.4	769.1	881.0	922.1
72.5°	470.2	543.2	687.0	803.4	846.7
75°	378.9	465.6	607.1	721.2	762.3
77.5°	294.4	383.4	524.9	618.5	639.1
80°	216.8	308.1	431.4	497.5	522.7
82.5°	139.2	230.5	328.7	376.6	397.1
85°	77.6	152.9	214.5	241.9	251.1
87.5°	32.0	66.2	86.7	98.1	98.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)