

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: P311143

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-CP125-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: P311143
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-CP125-W2A-U-5000K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" 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: 6934.0 lumens
Efficiency: N/A
Efficacy: 107.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

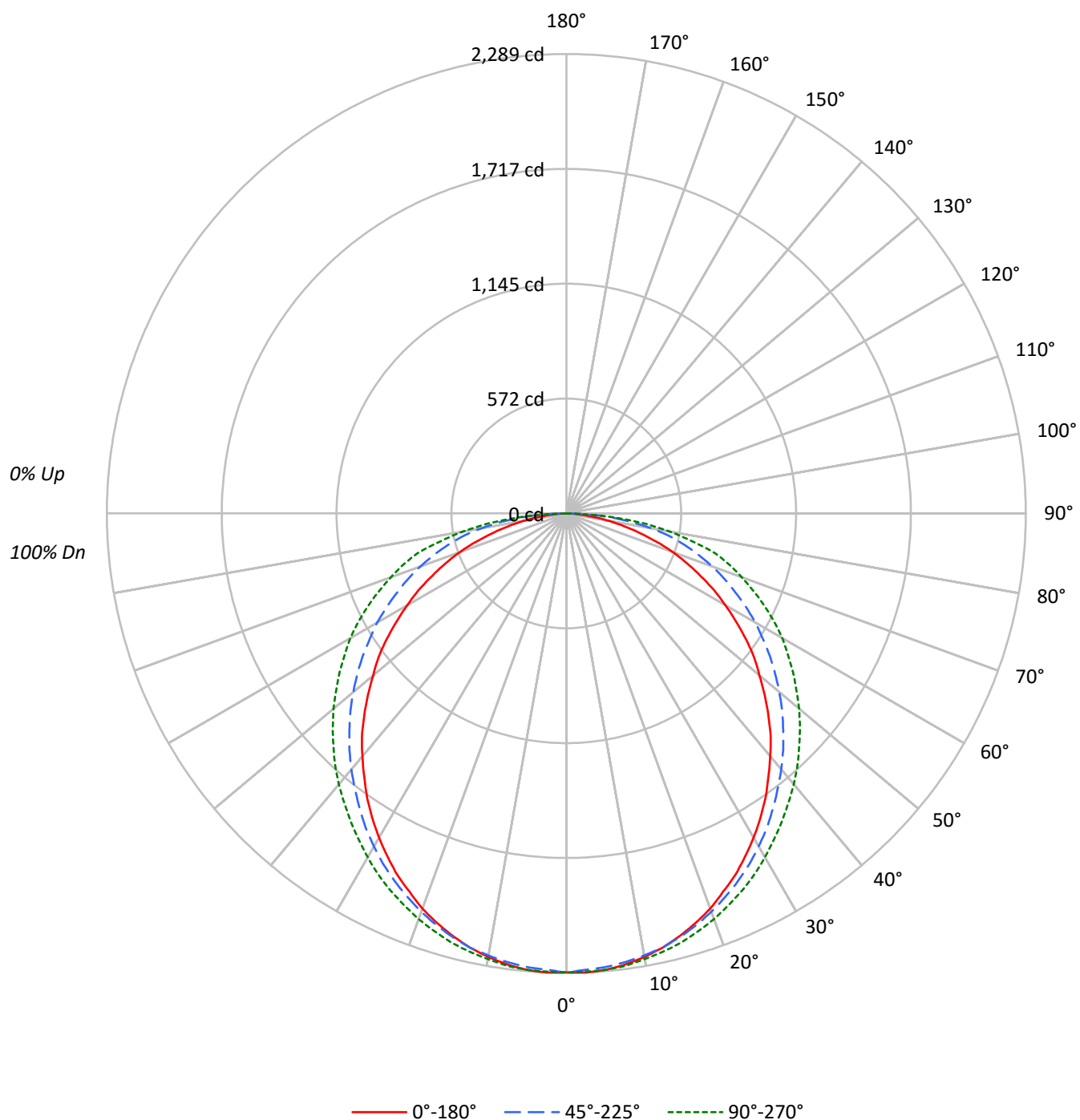
Input Watts (W): 64.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3077	3077	3077
5°	3082	3064	3082
10°	3065	3055	3080
15°	3038	3044	3083
20°	3001	3024	3080
25°	2954	3002	3077
30°	2899	2977	3074
35°	2842	2947	3076
40°	2776	2925	3095
45°	2710	2907	3121
50°	2629	2899	3169
55°	2563	2903	3232
60°	2464	2928	3343
65°	2351	2959	3465
70°	2226	3050	3656
75°	1985	3182	3995
80°	1694	3369	4082
85°	1207	3339	3907



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	216.4	3.1
10°-20°	618.8	8.9
20°-30°	934.7	13.5
30°-40°	1126.5	16.2
40°-50°	1182.6	17.1
50°-60°	1106.4	16.0
60°-70°	913.7	13.2
70°-80°	622.6	9.0
80°-90°	212.3	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°	1769.9	25.5
0°-40°	2896.4	41.8
0°-60°	5185.4	74.8
0°-90°	6934.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6934.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2287	2287	2287	2287	2287	
5°	2282	2280	2268	2282	2282	217
15°	2181	2183	2186	2209	2213	615
25°	1990	1999	2022	2061	2073	916
35°	1730	1748	1794	1854	1873	1081
45°	1424	1454	1528	1610	1640	1098
55°	1093	1136	1238	1339	1378	975
65°	738	801	929	1047	1088	733
75°	382	469	612	727	768	407
85°	78	154	216	244	253	98
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2286.8	2286.8	2286.8	2286.8	2286.8
2.5°	2289.1	2286.8	2275.3	2286.8	2284.5
5°	2282.2	2279.9	2268.4	2282.2	2282.2
7.5°	2266.1	2266.1	2254.6	2270.7	2273.0
10°	2243.1	2243.1	2236.2	2254.6	2254.6
12.5°	2215.5	2215.5	2215.5	2233.9	2236.2
15°	2180.9	2183.2	2185.5	2208.6	2213.2
17.5°	2139.5	2144.1	2151.0	2178.6	2183.2
20°	2095.8	2100.4	2111.9	2144.1	2151.0
22.5°	2040.6	2052.1	2068.2	2105.0	2111.9
25°	1990.0	1999.2	2022.2	2061.3	2072.8
27.5°	1927.9	1941.7	1971.6	2013.0	2029.1
30°	1865.8	1879.6	1916.4	1964.7	1978.5
32.5°	1799.1	1819.8	1858.9	1909.5	1925.6
35°	1730.0	1748.4	1794.4	1854.3	1872.7
37.5°	1654.1	1679.4	1730.0	1794.4	1817.5
40°	1580.5	1608.1	1665.6	1734.6	1762.2
42.5°	1506.9	1534.5	1598.9	1677.1	1704.7
45°	1424.1	1454.0	1527.6	1610.4	1640.3
47.5°	1341.2	1378.0	1458.6	1546.0	1578.2
50°	1256.1	1297.5	1384.9	1477.0	1513.8
52.5°	1180.2	1219.3	1311.3	1410.3	1444.8
55°	1092.8	1136.5	1237.7	1338.9	1378.0
57.5°	1003.1	1051.4	1159.5	1269.9	1309.0
60°	915.6	968.5	1088.2	1198.6	1242.3
62.5°	830.5	883.4	1007.7	1122.7	1166.4
65°	738.5	800.6	929.4	1046.8	1088.2
67.5°	651.1	717.8	853.5	968.5	1010.0
70°	565.9	630.4	775.3	888.0	929.4
72.5°	473.9	547.5	692.5	809.8	853.5
75°	381.9	469.3	612.0	727.0	768.4
77.5°	296.8	386.5	529.1	623.5	644.2
80°	218.6	310.6	434.8	501.5	526.8
82.5°	140.3	232.4	331.3	379.6	400.3
85°	78.2	154.1	216.3	243.9	253.1
87.5°	32.2	66.7	87.4	98.9	98.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)