

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: P309783

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-HRP-CA125-W2A-U-4500K**

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: P309783
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)
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-HRP-CA125-W2A-U-4500K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 4500K 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: 5292.0 lumens
Efficiency: N/A
Efficacy: 82.7 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

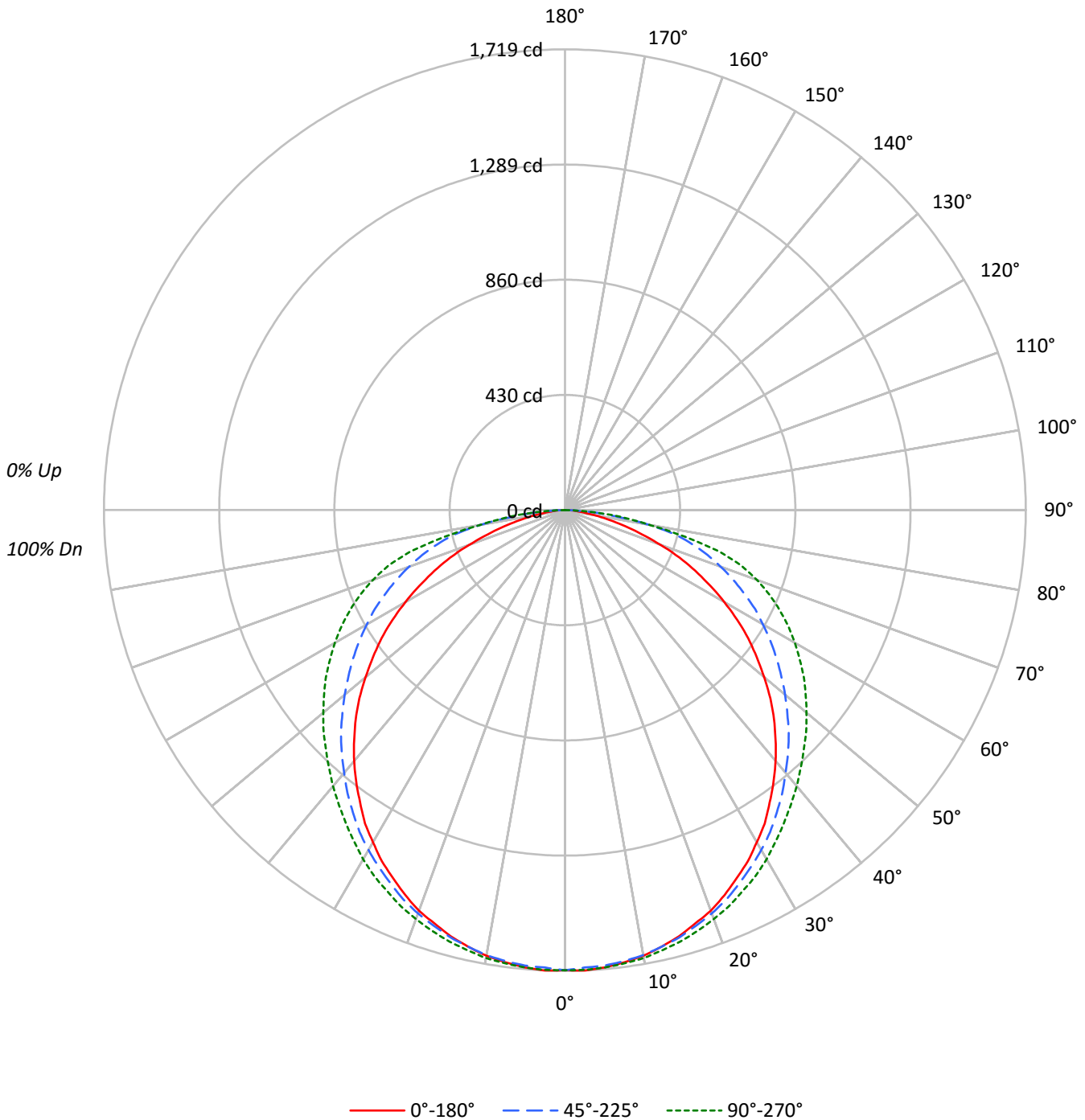
Input Watts (W): 64
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2310	2310	2310
5°	2313	2304	2313
10°	2306	2303	2319
15°	2293	2299	2321
20°	2278	2294	2325
25°	2250	2283	2329
30°	2224	2275	2337
35°	2187	2263	2340
40°	2148	2249	2362
45°	2099	2247	2399
50°	2031	2245	2462
55°	1959	2261	2552
60°	1848	2295	2665
65°	1707	2349	2814
70°	1490	2432	2998
75°	1209	2557	3098
80°	893	2507	2507
85°	684	1846	2086



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.7	3.1
10°-20°	467.1	8.8
20°-30°	711.1	13.4
30°-40°	863.4	16.3
40°-50°	912.2	17.2
50°-60°	860.7	16.3
60°-70°	715.7	13.5
70°-80°	470.8	8.9
80°-90°	128.3	2.4
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°	1340.8	25.3
0°-40°	2204.2	41.7
0°-60°	3977.1	75.2
0°-90°	5292.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5292.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1717	1717	1717	1717	1717	
5°	1713	1713	1706	1713	1713	163
15°	1646	1648	1650	1666	1666	464
25°	1515	1524	1538	1564	1569	699
35°	1332	1347	1378	1414	1425	834
45°	1103	1126	1181	1238	1261	850
55°	835	871	964	1055	1088	744
65°	536	598	738	846	884	530
75°	233	339	492	583	596	251
85°	44	98	120	133	135	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1717.0	1717.0	1717.0	1717.0	1717.0
2.5°	1719.2	1717.0	1708.1	1717.0	1717.0
5°	1712.6	1712.6	1705.9	1712.6	1712.6
7.5°	1701.5	1701.5	1697.1	1705.9	1705.9
10°	1688.2	1688.2	1686.0	1697.1	1697.1
12.5°	1668.3	1670.5	1668.3	1681.5	1681.5
15°	1646.1	1648.3	1650.5	1666.0	1666.0
17.5°	1617.3	1621.7	1626.2	1643.9	1646.1
20°	1590.7	1592.9	1601.8	1621.7	1623.9
22.5°	1555.3	1561.9	1573.0	1592.9	1599.6
25°	1515.4	1524.2	1537.5	1564.1	1568.6
27.5°	1477.7	1484.4	1502.1	1530.9	1539.8
30°	1431.2	1442.3	1464.4	1493.2	1504.3
32.5°	1386.9	1398.0	1424.6	1455.6	1464.4
35°	1331.5	1347.0	1378.0	1413.5	1424.6
37.5°	1278.3	1293.8	1331.5	1371.4	1384.7
40°	1222.9	1240.7	1280.5	1327.1	1344.8
42.5°	1163.1	1187.5	1231.8	1282.8	1302.7
45°	1103.3	1125.5	1180.8	1238.5	1260.6
47.5°	1039.1	1065.6	1125.5	1194.1	1220.7
50°	970.4	1003.6	1072.3	1147.6	1176.4
52.5°	901.7	939.4	1016.9	1101.1	1132.1
55°	835.2	870.7	963.7	1054.6	1087.8
57.5°	762.1	806.4	908.3	1005.8	1039.1
60°	686.8	735.5	853.0	954.9	990.3
62.5°	611.5	666.9	799.8	901.7	939.4
65°	536.1	598.2	737.8	846.3	884.0
67.5°	463.0	531.7	680.2	788.7	826.4
70°	378.8	465.2	618.1	724.5	762.1
72.5°	301.3	401.0	558.3	658.0	691.2
75°	232.6	339.0	491.8	582.7	596.0
77.5°	170.6	276.9	423.2	454.2	456.4
80°	115.2	221.5	323.5	319.0	323.5
82.5°	75.3	166.2	203.8	228.2	230.4
85°	44.3	97.5	119.6	132.9	135.1
87.5°	22.2	33.2	42.1	44.3	48.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)