

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: P309803

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-HRP-CP187-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: P309803  
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-CP187-W2A-U-5500K  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.187" 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**

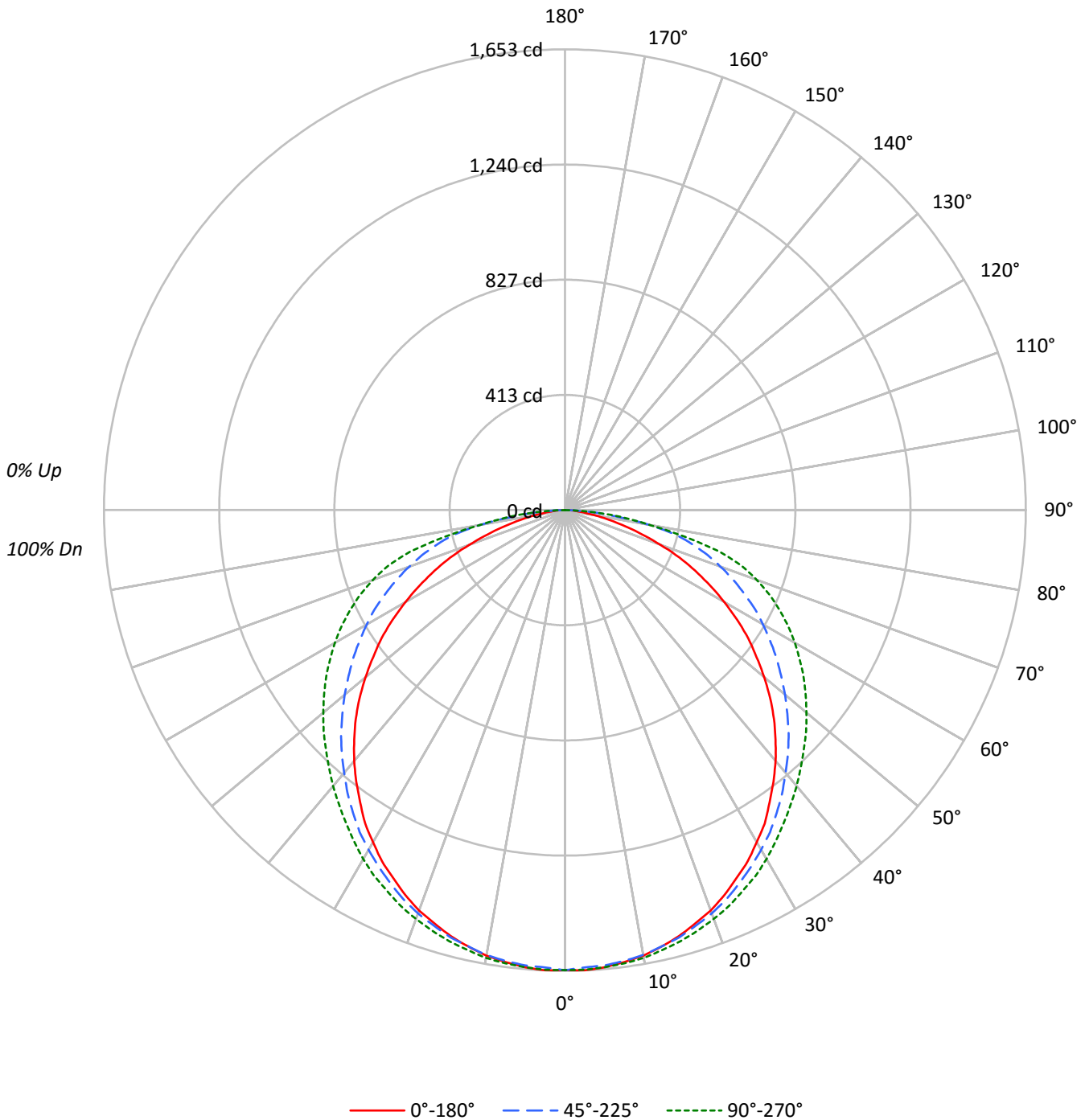
Lumens per Lamp: N/A  
Luminaire Lumens: 5087.0 lumens  
Efficiency: N/A  
Efficacy: 78.7 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 64.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
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				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°	2221	2221	2221
5°	2223	2215	2223
10°	2217	2214	2229
15°	2204	2210	2231
20°	2189	2205	2235
25°	2163	2194	2238
30°	2137	2187	2247
35°	2102	2176	2249
40°	2065	2162	2271
45°	2018	2160	2306
50°	1953	2158	2367
55°	1883	2173	2453
60°	1777	2206	2562
65°	1641	2258	2705
70°	1433	2338	2882
75°	1162	2458	2978
80°	858	2409	2409
85°	658	1775	2005



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	156.3	3.1
10°-20°	449.0	8.8
20°-30°	683.5	13.4
30°-40°	830.0	16.3
40°-50°	876.9	17.2
50°-60°	827.4	16.3
60°-70°	688.0	13.5
70°-80°	452.6	8.9
80°-90°	123.4	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°	1288.9	25.3
0°-40°	2118.8	41.7
0°-60°	3823.1	75.2
0°-90°	5087.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5087.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1650	1650	1650	1650	1650	
5°	1646	1646	1640	1646	1646	156
15°	1582	1584	1587	1602	1602	446
25°	1457	1465	1478	1504	1508	672
35°	1280	1295	1325	1359	1369	801
45°	1061	1082	1135	1190	1212	817
55°	803	837	926	1014	1046	715
65°	515	575	709	814	850	509
75°	224	326	473	560	573	241
85°	43	94	115	128	130	52
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1650.5	1650.5	1650.5	1650.5	1650.5
2.5°	1652.6	1650.5	1642.0	1650.5	1650.5
5°	1646.2	1646.2	1639.8	1646.2	1646.2
7.5°	1635.6	1635.6	1631.3	1639.8	1639.8
10°	1622.8	1622.8	1620.7	1631.3	1631.3
12.5°	1603.6	1605.8	1603.6	1616.4	1616.4
15°	1582.3	1584.5	1586.6	1601.5	1601.5
17.5°	1554.6	1558.9	1563.2	1580.2	1582.3
20°	1529.1	1531.2	1539.7	1558.9	1561.0
22.5°	1495.0	1501.4	1512.1	1531.2	1537.6
25°	1456.7	1465.2	1478.0	1503.5	1507.8
27.5°	1420.5	1426.9	1443.9	1471.6	1480.1
30°	1375.8	1386.4	1407.7	1435.4	1446.0
32.5°	1333.2	1343.8	1369.4	1399.2	1407.7
35°	1279.9	1294.8	1324.6	1358.7	1369.4
37.5°	1228.8	1243.7	1279.9	1318.3	1331.0
40°	1175.6	1192.6	1230.9	1275.7	1292.7
42.5°	1118.1	1141.5	1184.1	1233.1	1252.2
45°	1060.6	1081.9	1135.1	1190.5	1211.8
47.5°	998.8	1024.4	1081.9	1147.9	1173.4
50°	932.8	964.7	1030.8	1103.2	1130.8
52.5°	866.8	903.0	977.5	1058.4	1088.3
55°	802.9	837.0	926.4	1013.7	1045.7
57.5°	732.6	775.2	873.2	966.9	998.8
60°	660.2	707.0	819.9	917.9	952.0
62.5°	587.8	641.0	768.8	866.8	903.0
65°	515.4	575.0	709.2	813.5	849.7
67.5°	445.1	511.1	653.8	758.2	794.4
70°	364.2	447.2	594.2	696.4	732.6
72.5°	289.6	385.5	536.7	632.5	664.5
75°	223.6	325.8	472.8	560.1	572.9
77.5°	164.0	266.2	406.8	436.6	438.7
80°	110.7	213.0	310.9	306.7	310.9
82.5°	72.4	159.7	195.9	219.4	221.5
85°	42.6	93.7	115.0	127.8	129.9
87.5°	21.3	31.9	40.5	42.6	46.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)