

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: P309791

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-HRP-CP125-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: P309791  
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-CP125-W2A-U-4000K  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" POLYCARB 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**

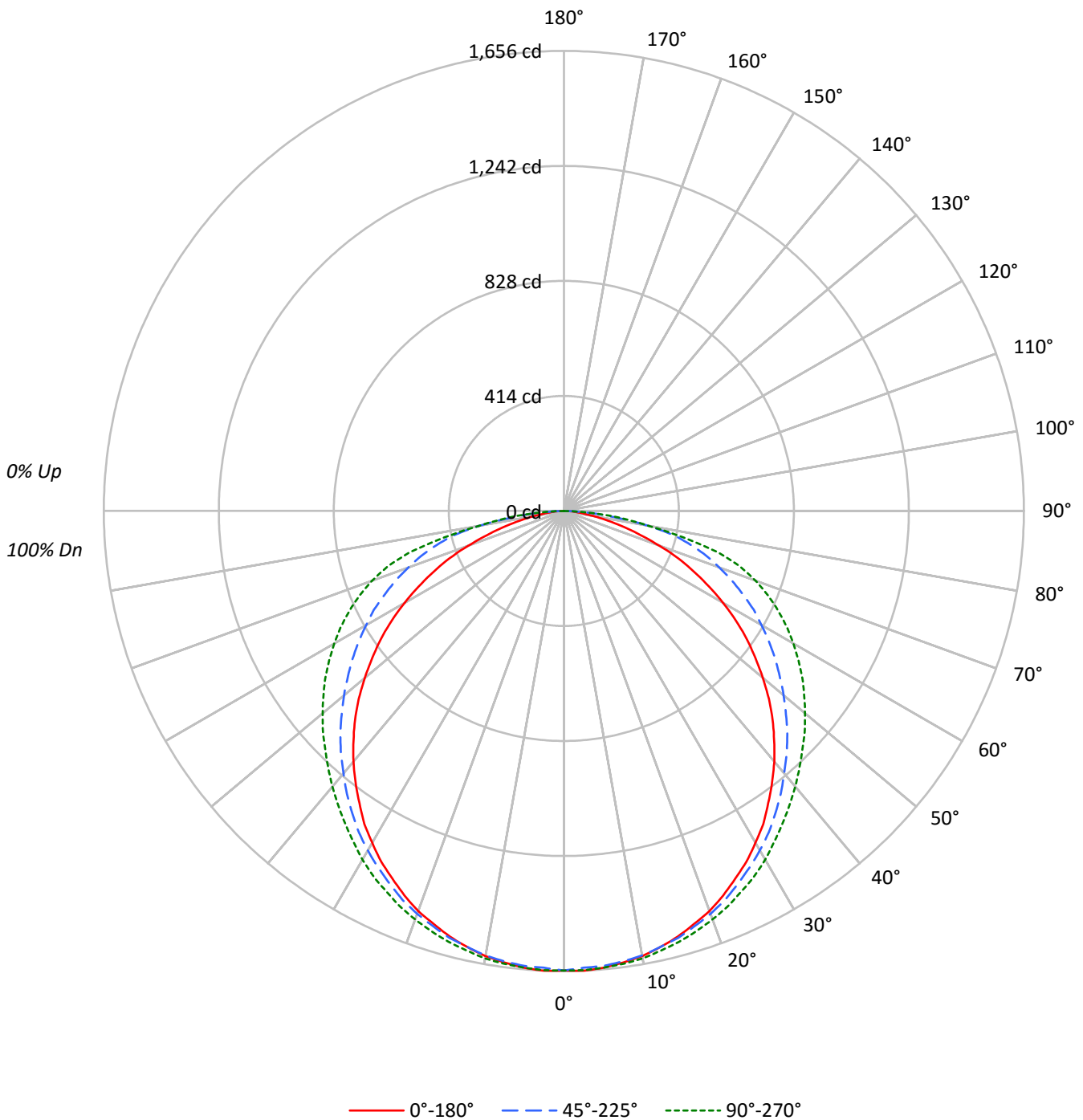
Lumens per Lamp: N/A  
Luminaire Lumens: 5099.0 lumens  
Efficiency: N/A  
Efficacy: 80.3 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 63.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
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				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°	2226	2226	2226
5°	2229	2220	2229
10°	2222	2219	2234
15°	2209	2215	2236
20°	2195	2210	2240
25°	2168	2199	2244
30°	2142	2192	2252
35°	2107	2181	2255
40°	2070	2167	2276
45°	2023	2165	2311
50°	1957	2163	2373
55°	1888	2178	2459
60°	1781	2212	2568
65°	1645	2263	2712
70°	1436	2343	2889
75°	1165	2464	2985
80°	860	2415	2415
85°	659	1780	2010



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	156.7	3.1
10°-20°	450.0	8.8
20°-30°	685.1	13.4
30°-40°	831.9	16.3
40°-50°	878.9	17.2
50°-60°	829.3	16.3
60°-70°	689.6	13.5
70°-80°	453.7	8.9
80°-90°	123.7	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°	1291.9	25.3
0°-40°	2123.8	41.7
0°-60°	3832.1	75.2
0°-90°	5099.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5099.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1654	1654	1654	1654	1654	
5°	1650	1650	1644	1650	1650	157
15°	1586	1588	1590	1605	1605	447
25°	1460	1469	1482	1507	1511	674
35°	1283	1298	1328	1362	1373	803
45°	1063	1084	1138	1193	1215	819
55°	805	839	929	1016	1048	717
65°	517	576	711	815	852	511
75°	224	327	474	561	574	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°	1654.4	1654.4	1654.4	1654.4	1654.4
2.5°	1656.5	1654.4	1645.8	1654.4	1654.4
5°	1650.1	1650.1	1643.7	1650.1	1650.1
7.5°	1639.4	1639.4	1635.2	1643.7	1643.7
10°	1626.6	1626.6	1624.5	1635.2	1635.2
12.5°	1607.4	1609.5	1607.4	1620.2	1620.2
15°	1586.1	1588.2	1590.3	1605.3	1605.3
17.5°	1558.3	1562.6	1566.9	1583.9	1586.1
20°	1532.7	1534.8	1543.4	1562.6	1564.7
22.5°	1498.5	1504.9	1515.6	1534.8	1541.2
25°	1460.1	1468.7	1481.5	1507.1	1511.4
27.5°	1423.8	1430.2	1447.3	1475.1	1483.6
30°	1379.0	1389.7	1411.0	1438.8	1449.4
32.5°	1336.3	1347.0	1372.6	1402.5	1411.0
35°	1282.9	1297.9	1327.8	1361.9	1372.6
37.5°	1231.7	1246.7	1282.9	1321.4	1334.2
40°	1178.3	1195.4	1233.8	1278.7	1295.7
42.5°	1120.7	1144.2	1186.9	1236.0	1255.2
45°	1063.1	1084.4	1137.8	1193.3	1214.6
47.5°	1001.2	1026.8	1084.4	1150.6	1176.2
50°	935.0	967.0	1033.2	1105.8	1133.5
52.5°	868.8	905.1	979.8	1060.9	1090.8
55°	804.8	838.9	928.6	1016.1	1048.1
57.5°	734.3	777.0	875.2	969.1	1001.2
60°	661.7	708.7	821.9	920.0	954.2
62.5°	589.2	642.5	770.6	868.8	905.1
65°	516.6	576.4	710.8	815.4	851.7
67.5°	446.1	512.3	655.3	759.9	796.2
70°	365.0	448.3	595.6	698.0	734.3
72.5°	290.3	386.4	537.9	634.0	666.0
75°	224.1	326.6	473.9	561.4	574.2
77.5°	164.4	266.8	407.7	437.6	439.7
80°	111.0	213.5	311.7	307.4	311.7
82.5°	72.6	160.1	196.4	219.9	222.0
85°	42.7	93.9	115.3	128.1	130.2
87.5°	21.3	32.0	40.6	42.7	47.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)