

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: P309790

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-HRP-CP125-W2A-U-3500K**

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: P309790  
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-3500K  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" POLYCARB SHEET  
Light Source: (336) 3500K 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**

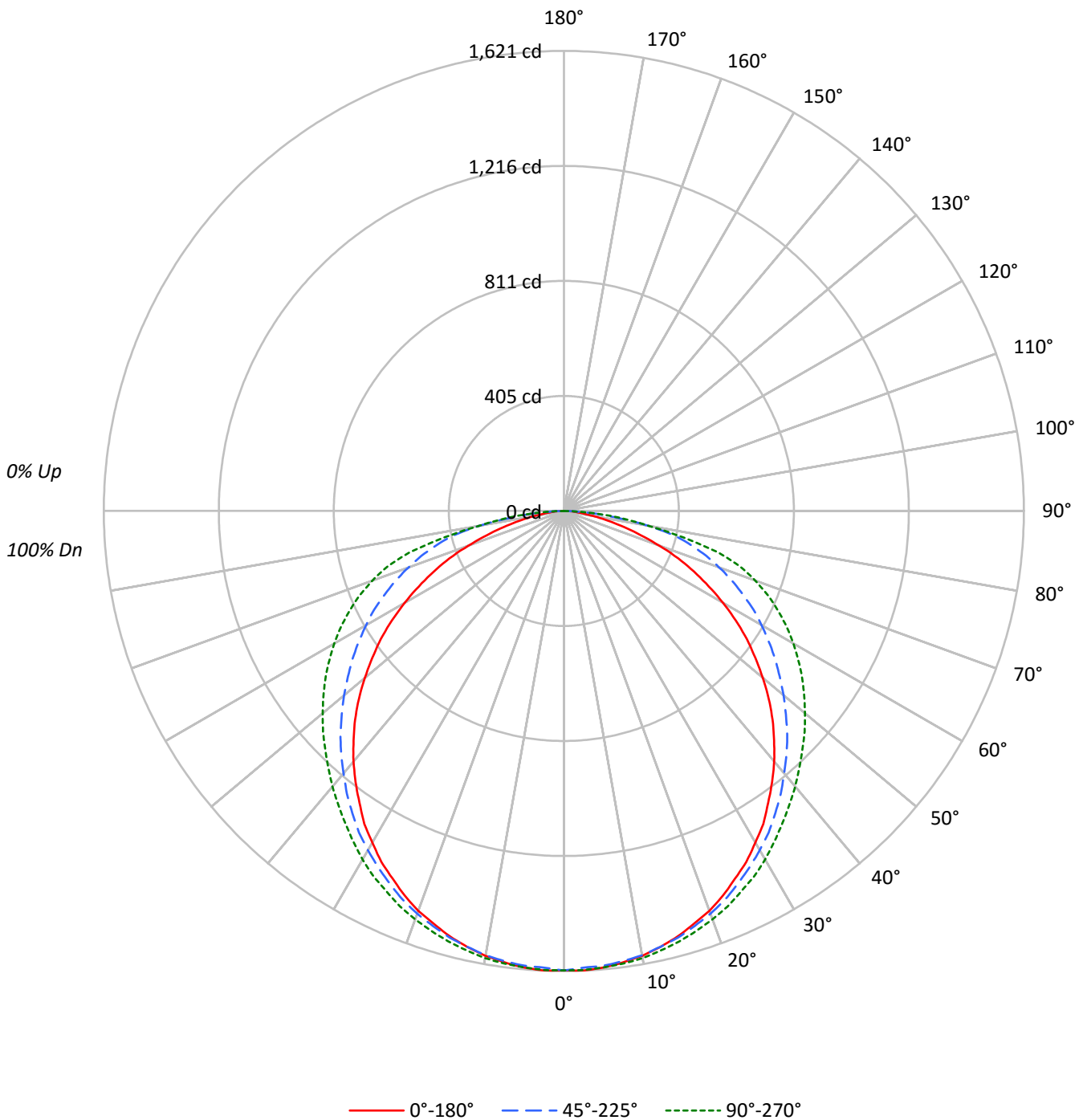
Lumens per Lamp: N/A  
Luminaire Lumens: 4989.0 lumens  
Efficiency: N/A  
Efficacy: 79.1 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 63.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
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



TEST NUMBER: P309790

CATALOG NUMBER: 24FCZ2-75HE-UNV-L82765-HRP-CP125-W2A-U-3500K

### Luminous Intensity Polar Plot





TEST NUMBER: P309790

CATALOG NUMBER: 24FCZ2-75HE-UNV-L82765-HRP-CP125-W2A-U-3500K

**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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82				82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67				67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56				56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	50	48				48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41				41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36				36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31				31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28				28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25				25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24	23				23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2178	2178	2178
5°	2181	2172	2181
10°	2174	2172	2186
15°	2162	2167	2188
20°	2147	2162	2192
25°	2121	2152	2195
30°	2096	2145	2203
35°	2062	2134	2206
40°	2025	2120	2227
45°	1979	2118	2261
50°	1915	2116	2322
55°	1847	2131	2406
60°	1742	2164	2512
65°	1609	2214	2653
70°	1405	2292	2827
75°	1140	2411	2921
80°	841	2362	2362
85°	645	1741	1967



TEST NUMBER: P309790

CATALOG NUMBER: 24FCZ2-75HE-UNV-L82765-HRP-CP125-W2A-U-3500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	153.3	3.1
10°-20°	440.3	8.8
20°-30°	670.4	13.4
30°-40°	814.0	16.3
40°-50°	859.9	17.2
50°-60°	811.5	16.3
60°-70°	674.7	13.5
70°-80°	443.9	8.9
80°-90°	121.0	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°	1264.0	25.3
0°-40°	2078.0	41.7
0°-60°	3749.4	75.2
0°-90°	4989.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4989.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1619	1619	1619	1619	1619	
5°	1614	1614	1608	1614	1614	153
15°	1552	1554	1556	1571	1571	438
25°	1429	1437	1450	1475	1479	659
35°	1255	1270	1299	1332	1343	786
45°	1040	1061	1113	1168	1188	801
55°	787	821	909	994	1026	701
65°	505	564	696	798	833	500
75°	219	320	464	549	562	236
85°	42	92	113	125	127	51
90°	0	0	0	0	0	



TEST NUMBER: P309790

CATALOG NUMBER: 24FCZ2-75HE-UNV-L82765-HRP-CP125-W2A-U-3500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1618.7	1618.7	1618.7	1618.7	1618.7
2.5°	1620.8	1618.7	1610.3	1618.7	1618.7
5°	1614.5	1614.5	1608.2	1614.5	1614.5
7.5°	1604.1	1604.1	1599.9	1608.2	1608.2
10°	1591.5	1591.5	1589.4	1599.9	1599.9
12.5°	1572.7	1574.8	1572.7	1585.3	1585.3
15°	1551.8	1553.9	1556.0	1570.6	1570.6
17.5°	1524.7	1528.9	1533.1	1549.8	1551.8
20°	1499.6	1501.7	1510.1	1528.9	1531.0
22.5°	1466.2	1472.5	1482.9	1501.7	1508.0
25°	1428.6	1437.0	1449.5	1474.6	1478.7
27.5°	1393.1	1399.4	1416.1	1443.2	1451.6
30°	1349.3	1359.7	1380.6	1407.7	1418.2
32.5°	1307.5	1317.9	1343.0	1372.2	1380.6
35°	1255.3	1269.9	1299.1	1332.5	1343.0
37.5°	1205.1	1219.8	1255.3	1292.9	1305.4
40°	1152.9	1169.6	1207.2	1251.1	1267.8
42.5°	1096.5	1119.5	1161.3	1209.3	1228.1
45°	1040.1	1061.0	1113.2	1167.5	1188.4
47.5°	979.6	1004.6	1061.0	1125.8	1150.8
50°	914.8	946.1	1010.9	1081.9	1109.1
52.5°	850.1	885.6	958.7	1038.0	1067.3
55°	787.4	820.8	908.6	994.2	1025.5
57.5°	718.5	760.3	856.3	948.2	979.6
60°	647.5	693.4	804.1	900.2	933.6
62.5°	576.5	628.7	754.0	850.1	885.6
65°	505.4	563.9	695.5	797.9	833.4
67.5°	436.5	501.3	641.2	743.6	779.1
70°	357.2	438.6	582.7	683.0	718.5
72.5°	284.1	378.0	526.3	620.3	651.7
75°	219.3	319.6	463.7	549.3	561.8
77.5°	160.8	261.1	398.9	428.2	430.3
80°	108.6	208.9	304.9	300.8	304.9
82.5°	71.0	156.6	192.2	215.1	217.2
85°	41.8	91.9	112.8	125.3	127.4
87.5°	20.9	31.3	39.7	41.8	45.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)