

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: P310366

Luminaire Tested: **24FCZ2-65HE-UNV-L82765-RDP-CA125-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: P310366  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24FCZ2-65HE-UNV-L82765-RDP-CA125-W2A-U-3500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC 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**

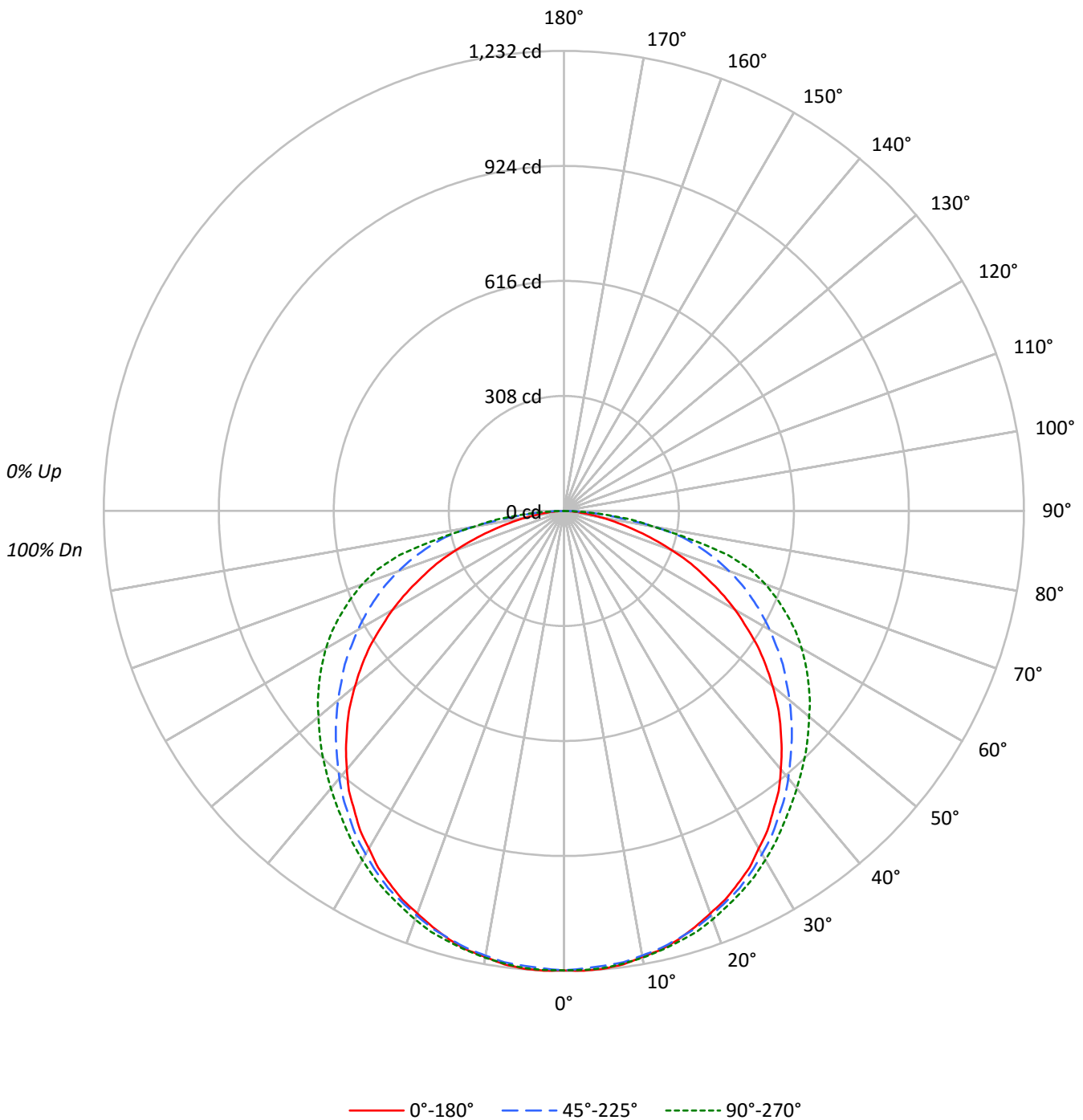
Lumens per Lamp: N/A  
Luminaire Lumens: 3912.0 lumens  
Efficiency: N/A  
Efficacy: 74.1 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 52.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
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	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

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

	0°	45°	90°
0°	1655	1655	1655
5°	1662	1651	1659
10°	1657	1652	1660
15°	1654	1651	1662
20°	1642	1650	1667
25°	1636	1654	1671
30°	1622	1649	1676
35°	1606	1645	1683
40°	1588	1643	1704
45°	1562	1643	1743
50°	1527	1653	1795
55°	1488	1680	1875
60°	1425	1713	1979
65°	1334	1773	2100
70°	1214	1855	2260
75°	1029	1957	2361
80°	812	1970	1909
85°	599	1497	1678



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.7	3.0
10°-20°	335.9	8.6
20°-30°	513.6	13.1
30°-40°	627.9	16.0
40°-50°	669.2	17.1
50°-60°	639.8	16.4
60°-70°	542.0	13.9
70°-80°	364.3	9.3
80°-90°	102.8	2.6
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°	966.1	24.7
0°-40°	1594.0	40.7
0°-60°	2903.0	74.2
0°-90°	3912.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3912.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1230	1230	1230	1230	1230	
5°	1230	1228	1222	1228	1228	117
15°	1188	1188	1186	1195	1193	335
25°	1102	1106	1114	1124	1125	508
35°	978	986	1001	1021	1024	613
45°	821	834	864	900	916	633
55°	634	658	716	772	799	565
65°	419	462	557	631	660	416
75°	198	270	376	440	454	212
85°	39	80	97	105	109	48
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1230.2	1230.2	1230.2	1230.2	1230.2
2.5°	1232.2	1232.2	1226.3	1230.2	1230.2
5°	1230.2	1228.3	1222.5	1228.3	1228.3
7.5°	1224.4	1222.5	1218.6	1224.4	1222.5
10°	1212.7	1212.7	1208.9	1214.7	1214.7
12.5°	1203.0	1201.1	1199.2	1206.9	1205.0
15°	1187.5	1187.5	1185.6	1195.3	1193.3
17.5°	1168.1	1170.1	1172.0	1179.8	1181.7
20°	1146.8	1150.7	1152.6	1164.2	1164.2
22.5°	1127.4	1129.3	1133.2	1144.8	1144.8
25°	1102.1	1106.0	1113.8	1123.5	1125.4
27.5°	1076.9	1078.9	1088.6	1102.1	1104.1
30°	1043.9	1049.8	1061.4	1076.9	1078.9
32.5°	1014.8	1020.6	1034.2	1049.8	1053.6
35°	978.0	985.7	1001.2	1020.6	1024.5
37.5°	945.0	950.8	970.2	991.5	997.4
40°	904.2	915.9	935.3	960.5	970.2
42.5°	863.5	875.1	898.4	931.4	943.0
45°	820.8	834.4	863.5	900.3	915.9
47.5°	778.1	793.6	826.6	869.3	886.8
50°	729.6	749.0	789.7	838.3	857.7
52.5°	683.0	706.3	750.9	805.3	830.5
55°	634.5	657.8	716.0	772.3	799.4
57.5°	580.2	611.2	675.3	739.3	768.4
60°	529.7	558.8	636.5	706.3	735.4
62.5°	475.4	514.2	597.6	671.4	700.5
65°	419.1	461.8	556.9	630.6	659.7
67.5°	368.7	415.2	516.1	589.9	619.0
70°	308.5	366.7	471.5	545.3	574.4
72.5°	252.3	316.3	424.9	496.7	523.9
75°	197.9	269.7	376.4	440.5	454.1
77.5°	147.5	223.1	326.0	353.2	343.5
80°	104.8	178.5	254.2	240.6	246.4
82.5°	67.9	135.8	157.2	178.5	184.3
85°	38.8	79.6	97.0	104.8	108.7
87.5°	17.5	29.1	38.8	38.8	36.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)