

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: P313778

Luminaire Tested: **24FCZ2-75HE-UNV-L83050-RDP-CP125-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: P313778  
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: 24FCZ2-75HE-UNV-L83050-RDP-CP125-W2A-U-4500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB 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: 4801.0 lumens  
Efficiency: N/A  
Efficacy: 72.9 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

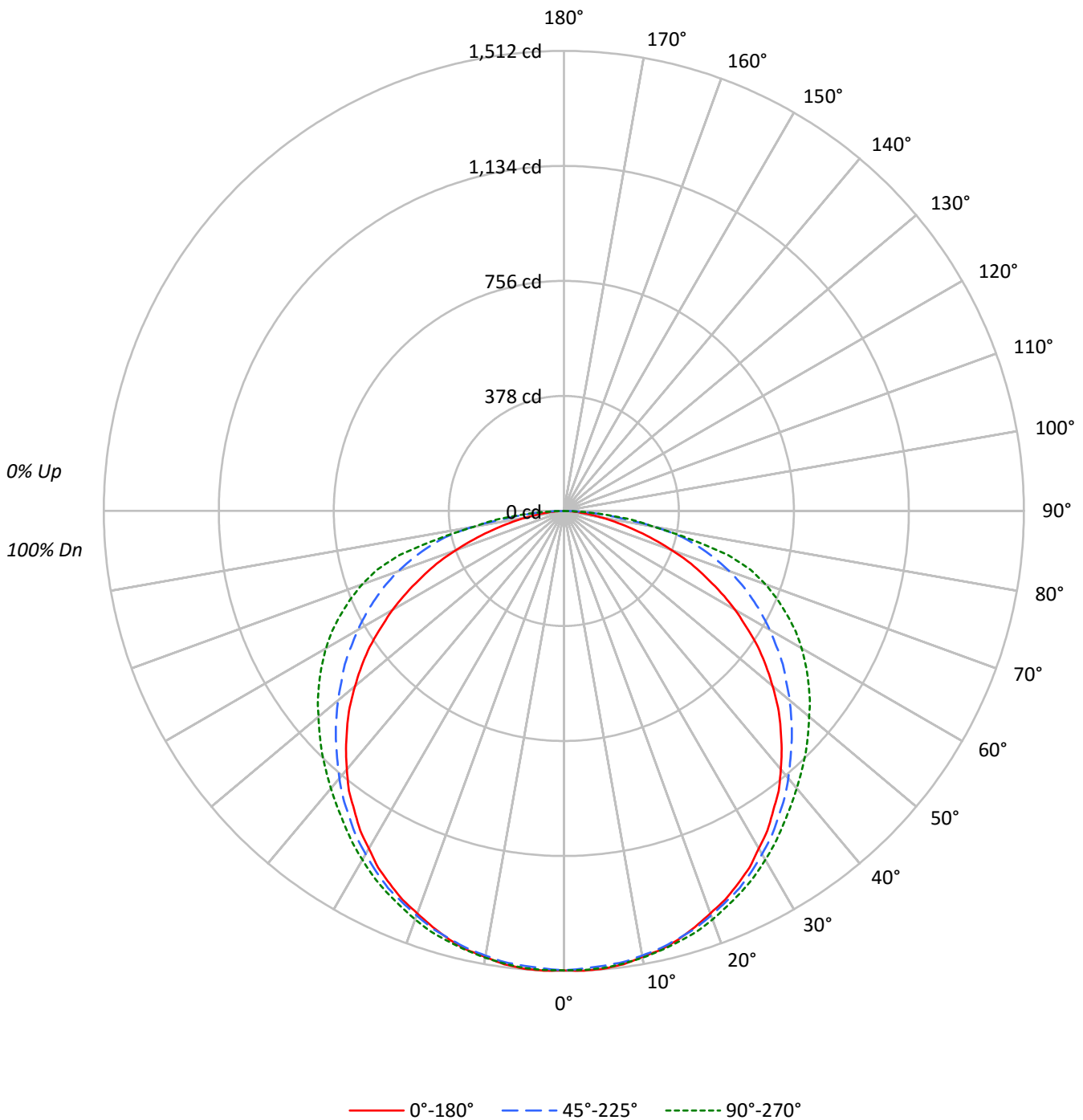
Input Watts (W): 65.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2031	2031	2031
5°	2039	2026	2036
10°	2033	2027	2037
15°	2030	2027	2040
20°	2015	2025	2046
25°	2008	2029	2051
30°	1991	2024	2057
35°	1971	2018	2065
40°	1949	2016	2091
45°	1917	2016	2139
50°	1874	2029	2203
55°	1827	2061	2301
60°	1749	2102	2429
65°	1638	2176	2578
70°	1489	2277	2773
75°	1263	2402	2897
80°	996	2417	2343
85°	735	1839	2059



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	143.2	3.0
10°-20°	412.2	8.6
20°-30°	630.3	13.1
30°-40°	770.5	16.0
40°-50°	821.2	17.1
50°-60°	785.2	16.4
60°-70°	665.2	13.9
70°-80°	447.1	9.3
80°-90°	126.1	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°	1185.7	24.7
0°-40°	1956.2	40.7
0°-60°	3562.7	74.2
0°-90°	4801.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4801.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1510	1510	1510	1510	1510	
5°	1510	1507	1500	1507	1507	143
15°	1457	1457	1455	1467	1464	411
25°	1353	1357	1367	1379	1381	623
35°	1200	1210	1229	1253	1257	752
45°	1007	1024	1060	1105	1124	777
55°	779	807	879	948	981	694
65°	514	567	683	774	810	511
75°	243	331	462	541	557	260
85°	48	98	119	129	133	59
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1509.8	1509.8	1509.8	1509.8	1509.8
2.5°	1512.2	1512.2	1505.0	1509.8	1509.8
5°	1509.8	1507.4	1500.3	1507.4	1507.4
7.5°	1502.6	1500.3	1495.5	1502.6	1500.3
10°	1488.3	1488.3	1483.6	1490.7	1490.7
12.5°	1476.4	1474.1	1471.7	1481.2	1478.8
15°	1457.4	1457.4	1455.0	1466.9	1464.5
17.5°	1433.6	1436.0	1438.3	1447.9	1450.2
20°	1407.4	1412.1	1414.5	1428.8	1428.8
22.5°	1383.6	1385.9	1390.7	1405.0	1405.0
25°	1352.6	1357.4	1366.9	1378.8	1381.2
27.5°	1321.7	1324.0	1335.9	1352.6	1355.0
30°	1281.2	1288.3	1302.6	1321.7	1324.0
32.5°	1245.4	1252.6	1269.3	1288.3	1293.1
35°	1200.2	1209.7	1228.8	1252.6	1257.4
37.5°	1159.7	1166.9	1190.7	1216.9	1224.0
40°	1109.7	1124.0	1147.8	1178.8	1190.7
42.5°	1059.7	1074.0	1102.6	1143.0	1157.3
45°	1007.3	1024.0	1059.7	1104.9	1124.0
47.5°	954.9	974.0	1014.5	1066.8	1088.3
50°	895.4	919.2	969.2	1028.7	1052.6
52.5°	838.2	866.8	921.6	988.3	1019.2
55°	778.7	807.3	878.7	947.8	981.1
57.5°	712.0	750.1	828.7	907.3	943.0
60°	650.1	685.8	781.1	866.8	902.5
62.5°	583.4	631.1	733.5	823.9	859.7
65°	514.4	566.8	683.4	773.9	809.7
67.5°	452.5	509.6	633.4	723.9	759.7
70°	378.6	450.1	578.7	669.2	704.9
72.5°	309.6	388.2	521.5	609.6	643.0
75°	242.9	331.0	462.0	540.6	557.2
77.5°	181.0	273.9	400.1	433.4	421.5
80°	128.6	219.1	312.0	295.3	302.4
82.5°	83.3	166.7	192.9	219.1	226.2
85°	47.6	97.6	119.1	128.6	133.4
87.5°	21.4	35.7	47.6	47.6	45.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)