

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: P310467

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-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: P310467
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-L82765-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: 4600.0 lumens
Efficiency: N/A
Efficacy: 71.9 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

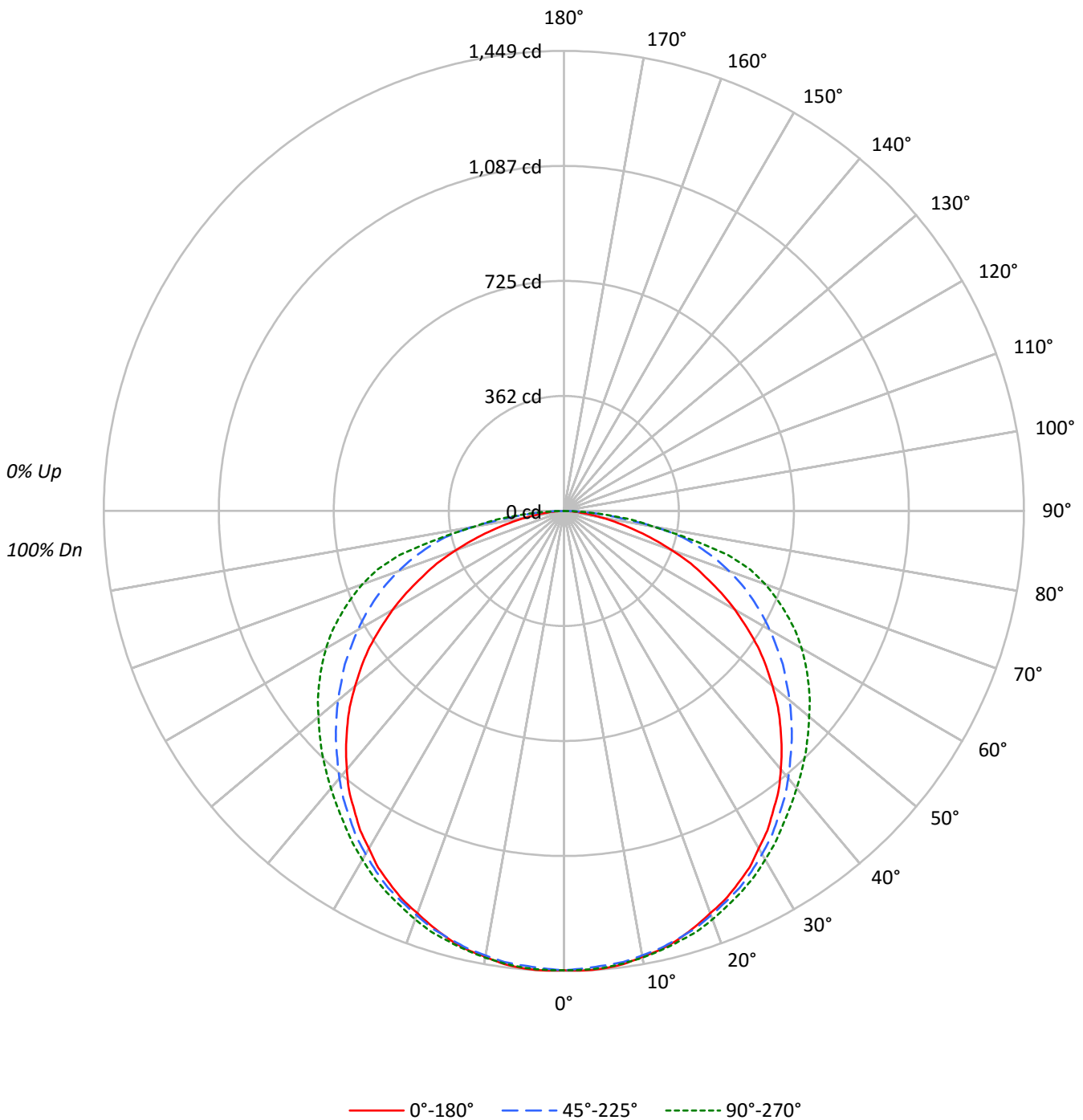
Input Watts (W): 64
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	68	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°	1946	1946	1946
5°	1954	1941	1951
10°	1948	1942	1951
15°	1945	1942	1955
20°	1931	1941	1960
25°	1924	1944	1965
30°	1907	1939	1971
35°	1889	1934	1979
40°	1868	1932	2004
45°	1836	1932	2049
50°	1796	1944	2111
55°	1750	1975	2205
60°	1676	2014	2327
65°	1569	2085	2470
70°	1427	2181	2657
75°	1210	2301	2776
80°	955	2316	2245
85°	704	1761	1973



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.2	3.0
10°-20°	394.9	8.6
20°-30°	603.9	13.1
30°-40°	738.3	16.0
40°-50°	786.8	17.1
50°-60°	752.3	16.4
60°-70°	637.3	13.9
70°-80°	428.3	9.3
80°-90°	120.8	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°	1136.1	24.7
0°-40°	1874.3	40.7
0°-60°	3413.5	74.2
0°-90°	4600.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4600.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1447	1447	1447	1447	1447	
5°	1447	1444	1437	1444	1444	137
15°	1396	1396	1394	1406	1403	394
25°	1296	1300	1310	1321	1323	597
35°	1150	1159	1177	1200	1205	720
45°	965	981	1015	1059	1077	744
55°	746	774	842	908	940	665
65°	493	543	655	742	776	489
75°	233	317	443	518	534	249
85°	46	94	114	123	128	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1446.6	1446.6	1446.6	1446.6	1446.6
2.5°	1448.9	1448.9	1442.0	1446.6	1446.6
5°	1446.6	1444.3	1437.4	1444.3	1444.3
7.5°	1439.7	1437.4	1432.9	1439.7	1437.4
10°	1426.0	1426.0	1421.5	1428.3	1428.3
12.5°	1414.6	1412.3	1410.1	1419.2	1416.9
15°	1396.4	1396.4	1394.1	1405.5	1403.2
17.5°	1373.6	1375.8	1378.1	1387.2	1389.5
20°	1348.5	1353.0	1355.3	1369.0	1369.0
22.5°	1325.6	1327.9	1332.5	1346.2	1346.2
25°	1296.0	1300.5	1309.7	1321.1	1323.4
27.5°	1266.3	1268.6	1280.0	1296.0	1298.3
30°	1227.5	1234.4	1248.1	1266.3	1268.6
32.5°	1193.3	1200.2	1216.1	1234.4	1238.9
35°	1150.0	1159.1	1177.3	1200.2	1204.7
37.5°	1111.2	1118.0	1140.8	1165.9	1172.8
40°	1063.3	1076.9	1099.8	1129.4	1140.8
42.5°	1015.3	1029.0	1056.4	1095.2	1108.9
45°	965.1	981.1	1015.3	1058.7	1076.9
47.5°	914.9	933.2	972.0	1022.2	1042.7
50°	857.9	880.7	928.6	985.7	1008.5
52.5°	803.1	830.5	883.0	946.9	976.5
55°	746.1	773.5	841.9	908.1	940.0
57.5°	682.2	718.7	794.0	869.3	903.5
60°	622.9	657.1	748.4	830.5	864.7
62.5°	559.0	604.6	702.7	789.5	823.7
65°	492.8	543.0	654.8	741.5	775.8
67.5°	433.5	488.3	606.9	693.6	727.8
70°	362.8	431.2	554.4	641.1	675.4
72.5°	296.6	371.9	499.7	584.1	616.0
75°	232.7	317.1	442.6	517.9	533.9
77.5°	173.4	262.4	383.3	415.3	403.9
80°	123.2	209.9	298.9	282.9	289.8
82.5°	79.9	159.7	184.8	209.9	216.8
85°	45.6	93.5	114.1	123.2	127.8
87.5°	20.5	34.2	45.6	45.6	43.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)