

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: P310418

Luminaire Tested: **24FCZ2-70HE-UNV-L82765-RDP-CP125-W2A-U-2700K**

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: P310418
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: 24FCZ2-70HE-UNV-L82765-RDP-CP125-W2A-U-2700K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET
Light Source: (336) 2700K 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: 3887.0 lumens
Efficiency: N/A
Efficacy: 67.4 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

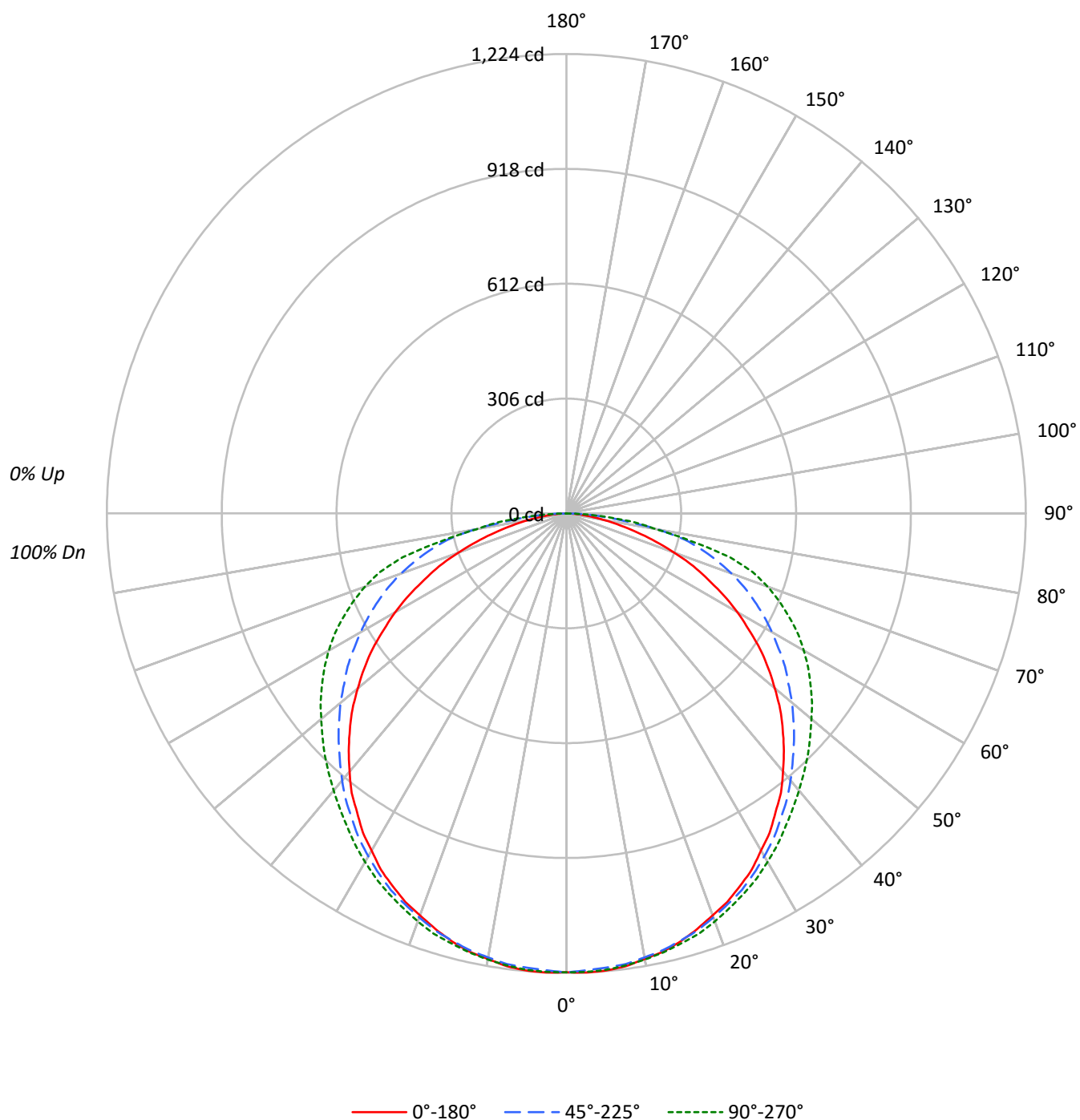
Input Watts (W): 57.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	108	103	98	94	105	100	96	92	96	93	89		92	89	87		82
2	97	89	81	75	95	87	80	74	83	77	72		80	75	71		67
3	88	77	68	62	86	76	67	61	72	66	60		70	64	59		56
4	81	68	59	52	78	67	58	51	64	57	51		62	55	50		47
5	74	60	51	44	72	59	51	44	57	49	43		55	48	43		40
6	68	54	45	38	66	53	45	38	51	44	38		50	43	37		35
7	63	49	40	34	61	48	40	34	47	39	33		45	38	33		31
8	59	45	36	30	57	44	36	30	43	35	30		41	34	29		27
9	55	41	33	27	53	40	32	27	39	32	27		38	31	26		24
10	51	38	30	24	50	37	29	24	36	29	24		35	29	24		22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1645	1645	1645
5°	1651	1640	1648
10°	1646	1641	1649
15°	1644	1641	1652
20°	1631	1640	1656
25°	1626	1643	1660
30°	1612	1638	1665
35°	1596	1634	1672
40°	1578	1632	1693
45°	1552	1633	1732
50°	1517	1643	1784
55°	1479	1669	1863
60°	1416	1702	1966
65°	1326	1762	2087
70°	1206	1843	2245
75°	1023	1944	2346
80°	807	1957	1898
85°	596	1488	1667



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.0	3.0
10°-20°	333.7	8.6
20°-30°	510.3	13.1
30°-40°	623.8	16.0
40°-50°	664.9	17.1
50°-60°	635.7	16.4
60°-70°	538.5	13.9
70°-80°	362.0	9.3
80°-90°	102.1	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°	960.0	24.7
0°-40°	1583.8	40.7
0°-60°	2884.4	74.2
0°-90°	3887.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3887.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1222	1222	1222	1222	1222	
5°	1222	1220	1215	1220	1220	116
15°	1180	1180	1178	1188	1186	333
25°	1095	1099	1107	1116	1118	505
35°	972	979	995	1014	1018	609
45°	816	829	858	895	910	629
55°	630	654	711	767	794	562
65°	416	459	553	627	656	413
75°	197	268	374	438	451	211
85°	39	79	96	104	108	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1222.4	1222.4	1222.4	1222.4	1222.4
2.5°	1224.3	1224.3	1218.5	1222.4	1222.4
5°	1222.4	1220.4	1214.6	1220.4	1220.4
7.5°	1216.6	1214.6	1210.8	1216.6	1214.6
10°	1205.0	1205.0	1201.1	1206.9	1206.9
12.5°	1195.4	1193.4	1191.5	1199.2	1197.3
15°	1179.9	1179.9	1178.0	1187.6	1185.7
17.5°	1160.7	1162.6	1164.5	1172.2	1174.2
20°	1139.4	1143.3	1145.2	1156.8	1156.8
22.5°	1120.2	1122.1	1126.0	1137.5	1137.5
25°	1095.1	1099.0	1106.7	1116.3	1118.2
27.5°	1070.0	1072.0	1081.6	1095.1	1097.0
30°	1037.3	1043.0	1054.6	1070.0	1072.0
32.5°	1008.3	1014.1	1027.6	1043.0	1046.9
35°	971.7	979.4	994.8	1014.1	1018.0
37.5°	938.9	944.7	964.0	985.2	991.0
40°	898.4	910.0	929.3	954.4	964.0
42.5°	858.0	869.5	892.7	925.4	937.0
45°	815.5	829.0	858.0	894.6	910.0
47.5°	773.1	788.6	821.3	863.7	881.1
50°	724.9	744.2	784.7	832.9	852.2
52.5°	678.7	701.8	746.1	800.1	825.2
55°	630.5	653.6	711.4	767.3	794.3
57.5°	576.5	607.3	670.9	734.6	763.5
60°	526.3	555.3	632.4	701.8	730.7
62.5°	472.4	510.9	593.8	667.1	696.0
65°	416.4	458.9	553.3	626.6	655.5
67.5°	366.3	412.6	512.8	586.1	615.0
70°	306.6	364.4	468.5	541.8	570.7
72.5°	250.6	314.3	422.2	493.6	520.6
75°	196.7	268.0	374.0	437.7	451.2
77.5°	146.5	221.7	323.9	350.9	341.3
80°	104.1	177.4	252.6	239.1	244.9
82.5°	67.5	135.0	156.2	177.4	183.2
85°	38.6	79.0	96.4	104.1	108.0
87.5°	17.4	28.9	38.6	38.6	36.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)