

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: P310388

Luminaire Tested: **24FCZ2-65HE-UNV-L82765-RDP-CP187-W2A-U-5500K**

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: P310388
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-CP187-W2A-U-5500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.187" POLYCARB SHEET
Light Source: (336) 5500K 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: 3910.0 lumens
Efficiency: N/A
Efficacy: 72.3 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

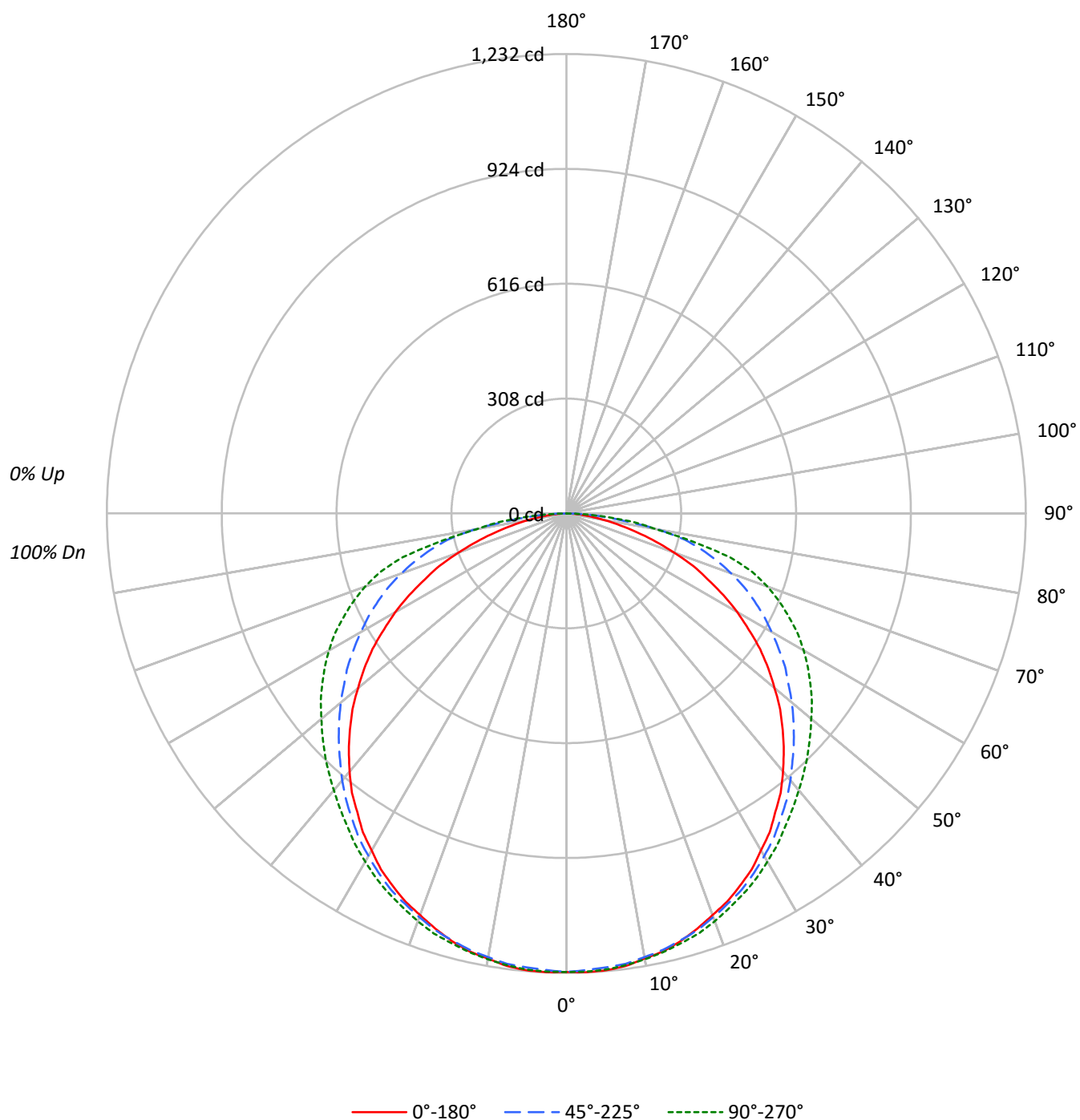
Input Watts (W): 54.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	50	30	10
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°	1654	1654	1654
5°	1661	1650	1658
10°	1656	1651	1659
15°	1653	1651	1661
20°	1641	1649	1666
25°	1635	1653	1670
30°	1621	1648	1675
35°	1606	1644	1682
40°	1587	1642	1703
45°	1561	1642	1742
50°	1526	1652	1794
55°	1488	1679	1874
60°	1425	1712	1978
65°	1334	1772	2099
70°	1213	1854	2258
75°	1028	1956	2359
80°	811	1969	1908
85°	599	1497	1677



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.6	3.0
10°-20°	335.7	8.6
20°-30°	513.3	13.1
30°-40°	627.5	16.0
40°-50°	668.8	17.1
50°-60°	639.5	16.4
60°-70°	541.7	13.9
70°-80°	364.1	9.3
80°-90°	102.7	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°	965.6	24.7
0°-40°	1593.2	40.7
0°-60°	2901.5	74.2
0°-90°	3910.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3910.0	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°	1187	1187	1185	1195	1193	335
25°	1102	1106	1113	1123	1125	508
35°	978	985	1001	1020	1024	612
45°	820	834	863	900	915	633
55°	634	658	716	772	799	565
65°	419	462	557	630	659	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°	1229.6	1229.6	1229.6	1229.6	1229.6
2.5°	1231.5	1231.5	1225.7	1229.6	1229.6
5°	1229.6	1227.6	1221.8	1227.6	1227.6
7.5°	1223.8	1221.8	1217.9	1223.8	1221.8
10°	1212.1	1212.1	1208.2	1214.1	1214.1
12.5°	1202.4	1200.5	1198.6	1206.3	1204.4
15°	1186.9	1186.9	1185.0	1194.7	1192.7
17.5°	1167.5	1169.5	1171.4	1179.2	1181.1
20°	1146.2	1150.1	1152.0	1163.6	1163.6
22.5°	1126.8	1128.7	1132.6	1144.2	1144.2
25°	1101.6	1105.5	1113.2	1122.9	1124.9
27.5°	1076.4	1078.3	1088.0	1101.6	1103.5
30°	1043.4	1049.2	1060.9	1076.4	1078.3
32.5°	1014.3	1020.1	1033.7	1049.2	1053.1
35°	977.5	985.2	1000.7	1020.1	1024.0
37.5°	944.5	950.3	969.7	991.0	996.9
40°	903.8	915.4	934.8	960.0	969.7
42.5°	863.0	874.7	897.9	930.9	942.6
45°	820.4	833.9	863.0	899.9	915.4
47.5°	777.7	793.2	826.2	868.9	886.3
50°	729.2	748.6	789.3	837.8	857.2
52.5°	682.7	705.9	750.6	804.9	830.1
55°	634.2	657.5	715.6	771.9	799.0
57.5°	579.9	610.9	674.9	738.9	768.0
60°	529.5	558.5	636.1	705.9	735.0
62.5°	475.2	513.9	597.3	671.0	700.1
65°	418.9	461.6	556.6	630.3	659.4
67.5°	368.5	415.0	515.9	589.6	618.7
70°	308.4	366.5	471.3	545.0	574.1
72.5°	252.1	316.1	424.7	496.5	523.6
75°	197.8	269.6	376.2	440.2	453.8
77.5°	147.4	223.0	325.8	353.0	343.3
80°	104.7	178.4	254.1	240.5	246.3
82.5°	67.9	135.8	157.1	178.4	184.2
85°	38.8	79.5	97.0	104.7	108.6
87.5°	17.5	29.1	38.8	38.8	36.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)