

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: METALUX

Report Number: P274842

Luminaire Tested: **24CZ2-70HE-RDP-UNV-L950-CD1-U**

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: P274842
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: METALUX
Catalog Number: 24CZ2-70HE-RDP-UNV-L950-CD1-U
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS WITH INSERT, 90CRI
Light Source: (392) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4280.0 lumens
Efficiency: N/A
Efficacy: 83.9 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

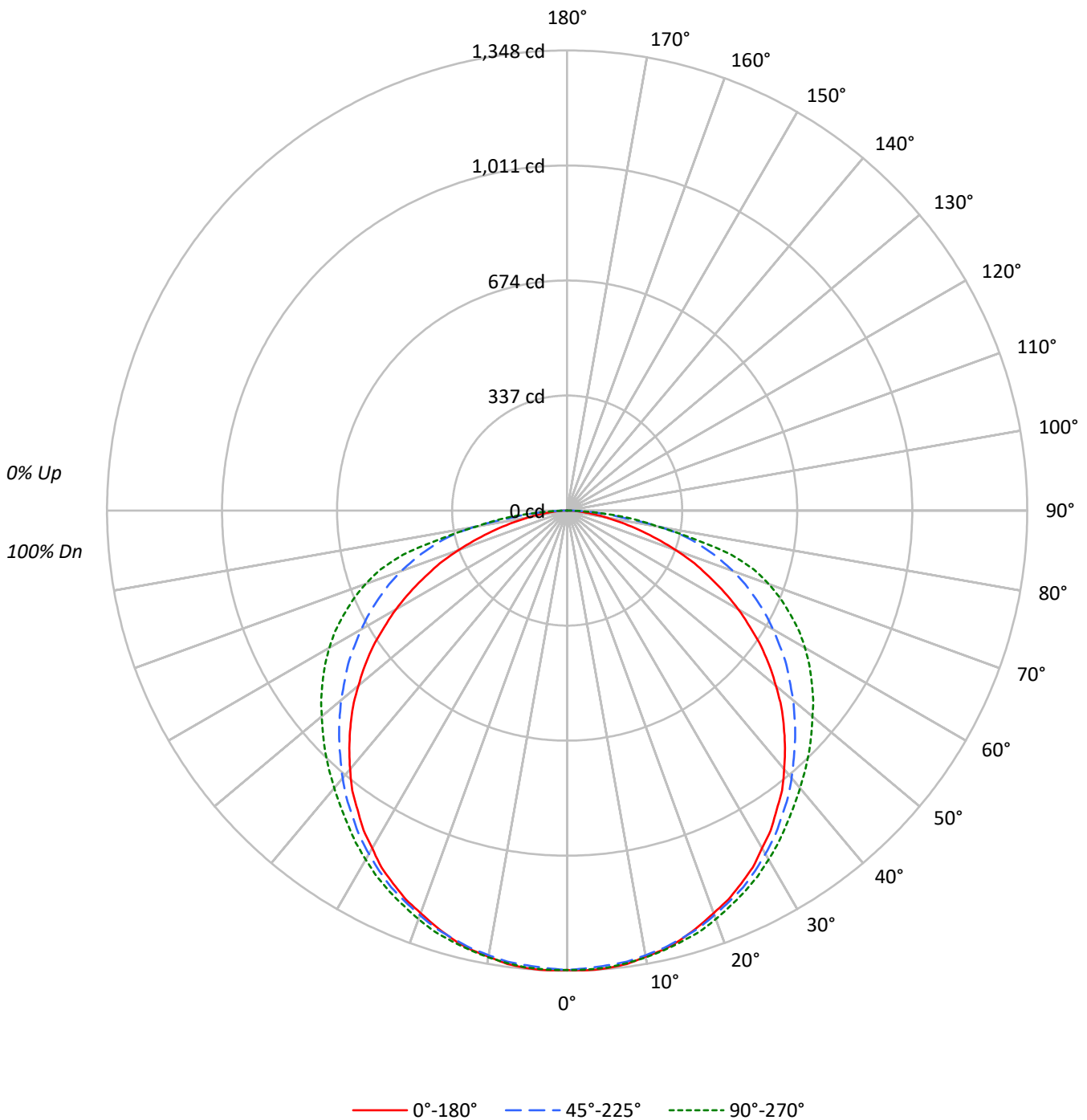
Input Watts (W): 51
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1811	1811	1811
5°	1818	1806	1815
10°	1813	1807	1816
15°	1810	1807	1819
20°	1797	1806	1824
25°	1790	1809	1828
30°	1774	1804	1834
35°	1758	1799	1841
40°	1738	1797	1864
45°	1709	1798	1907
50°	1671	1809	1964
55°	1628	1838	2052
60°	1560	1874	2165
65°	1460	1940	2298
70°	1328	2030	2472
75°	1125	2141	2583
80°	888	2155	2089
85°	656	1638	1836



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.7	3.0
10°-20°	367.4	8.6
20°-30°	561.9	13.1
30°-40°	686.9	16.0
40°-50°	732.1	17.1
50°-60°	700.0	16.4
60°-70°	593.0	13.9
70°-80°	398.5	9.3
80°-90°	112.4	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°	1057.0	24.7
0°-40°	1743.9	40.7
0°-60°	3176.1	74.2
0°-90°	4280.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4280.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1346	1346	1346	1346	1346	
5°	1346	1344	1337	1344	1344	128
15°	1299	1299	1297	1308	1306	366
25°	1206	1210	1219	1229	1231	556
35°	1070	1078	1095	1117	1121	670
45°	898	913	945	985	1002	693
55°	694	720	783	845	875	618
65°	459	505	609	690	722	455
75°	216	295	412	482	497	232
85°	42	87	106	115	119	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1345.9	1345.9	1345.9	1345.9	1345.9
2.5°	1348.1	1348.1	1341.7	1345.9	1345.9
5°	1345.9	1343.8	1337.4	1343.8	1343.8
7.5°	1339.6	1337.4	1333.2	1339.6	1337.4
10°	1326.8	1326.8	1322.6	1329.0	1329.0
12.5°	1316.2	1314.1	1312.0	1320.5	1318.3
15°	1299.2	1299.2	1297.1	1307.7	1305.6
17.5°	1278.0	1280.1	1282.2	1290.7	1292.9
20°	1254.7	1258.9	1261.0	1273.8	1273.8
22.5°	1233.4	1235.5	1239.8	1252.5	1252.5
25°	1205.8	1210.1	1218.6	1229.2	1231.3
27.5°	1178.2	1180.3	1191.0	1205.8	1207.9
30°	1142.1	1148.5	1161.2	1178.2	1180.3
32.5°	1110.3	1116.7	1131.5	1148.5	1152.8
35°	1070.0	1078.4	1095.4	1116.7	1120.9
37.5°	1033.9	1040.2	1061.5	1084.8	1091.2
40°	989.3	1002.0	1023.3	1050.9	1061.5
42.5°	944.7	957.4	982.9	1019.0	1031.7
45°	898.0	912.9	944.7	985.0	1002.0
47.5°	851.3	868.3	904.4	951.1	970.2
50°	798.2	819.5	864.0	917.1	938.3
52.5°	747.3	772.7	821.6	881.0	908.6
55°	694.2	719.7	783.4	844.9	874.6
57.5°	634.8	668.7	738.8	808.8	840.7
60°	579.6	611.4	696.3	772.7	804.6
62.5°	520.1	562.6	653.9	734.5	766.4
65°	458.6	505.3	609.3	690.0	721.8
67.5°	403.4	454.3	564.7	645.4	677.2
70°	337.5	401.2	515.9	596.5	628.4
72.5°	276.0	346.0	464.9	543.5	573.2
75°	216.5	295.1	411.8	481.9	496.8
77.5°	161.3	244.1	356.7	386.4	375.8
80°	114.6	195.3	278.1	263.2	269.6
82.5°	74.3	148.6	172.0	195.3	201.7
85°	42.5	87.0	106.1	114.6	118.9
87.5°	19.1	31.8	42.5	42.5	40.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)