

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: P588690

Luminaire Tested: **24CGTS-NUV-MID-3500K**

Issue Date: 12/3/2021

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: P588690
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (LCS210329021BSA)
Test Lab:
Issue Date: 12/3/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CGTS-NUV-MID-3500K
Description: 2X4 CGT SELECT TROFFER AT MID LUMEN OUTPUT AND 3500K COLOR SETTING

Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

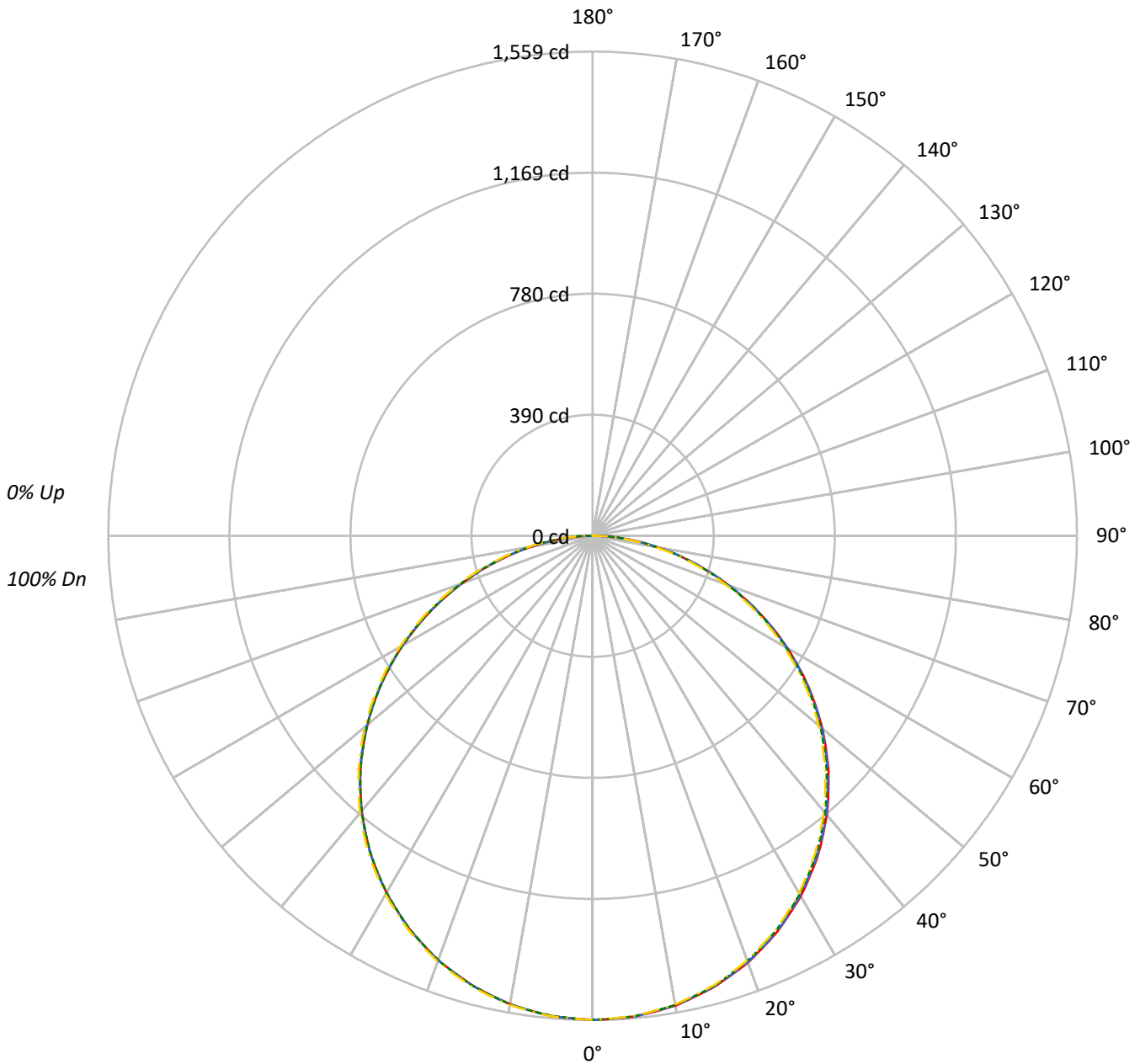
Lumens per Lamp: 4179.4 (1 lamp)
Luminaire Lumens: 4611.9 lumens
Efficiency: 110.3%
Efficacy: 117.1 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 39.4
Input Voltage (V): NR
Input Current (A_{in}): 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

TEST NUMBER: P588690

CATALOG NUMBER: 24CGTS-NUV-MID-3500K

Luminous Intensity Polar Plot





TEST NUMBER: P588690

CATALOG NUMBER: 24CGTS-NUV-MID-3500K

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	50	30	10	0
RCR																					
0	131	131	131	131	128	128	128	128	123	123	123	117	117	117	112	112	112	112	112	112	110
1	120	114	109	105	116	112	107	103	107	103	100	102	99	97	98	96	94	94	94	94	91
2	108	99	91	85	105	97	90	84	93	87	82	89	84	80	86	82	78	78	78	78	76
3	99	87	78	70	96	85	76	70	82	74	68	79	72	67	76	70	66	66	66	66	63
4	90	77	67	59	88	75	66	59	72	64	58	70	63	57	67	61	56	56	56	56	54
5	83	68	58	51	81	67	58	51	65	56	50	63	55	49	61	54	49	49	49	49	46
6	77	62	52	44	74	60	51	44	58	50	44	57	49	43	55	48	43	43	43	43	41
7	71	56	46	39	69	55	46	39	53	45	39	51	44	38	50	43	38	38	38	38	36
8	66	51	41	35	64	50	41	35	49	40	34	47	40	34	46	39	34	34	34	34	32
9	62	47	37	31	60	46	37	31	45	37	31	43	36	31	42	36	31	31	31	31	29
10	58	43	34	28	56	42	34	28	41	33	28	40	33	28	39	33	28	28	28	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	2098	2098	2098	2098
5°	2099	2097	2096	2095
10°	2099	2095	2092	2093
15°	2096	2093	2087	2088
20°	2094	2086	2082	2082
25°	2088	2079	2073	2072
30°	2082	2070	2062	2061
35°	2073	2060	2049	2048
40°	2060	2045	2031	2032
45°	2044	2027	2010	2010
50°	2021	2004	1981	1982
55°	1991	1975	1947	1948
60°	1951	1934	1898	1903
65°	1898	1883	1836	1845
70°	1833	1818	1755	1773
75°	1748	1741	1654	1685
80°	1632	1637	1513	1576
85°	1521	1453	1300	1419



TEST NUMBER: P588690

CATALOG NUMBER: 24CGTS-NUV-MID-3500K

ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	90°	180°	270°	360°	Flux
0°-10°	147.6	3.2	3.5	0°	1559	1559	1559	1559	1559	
10°-20°	423.7	9.2	10.1	5°	1554	1552	1552	1551	1554	148
20°-30°	645.3	14.0	15.4	15°	1505	1502	1498	1499	1505	425
30°-40°	783.4	17.0	18.7	25°	1407	1401	1396	1396	1407	648
40°-50°	819.6	17.8	19.6	35°	1262	1254	1248	1247	1262	789
50°-60°	748.1	16.2	17.9	45°	1074	1065	1056	1056	1074	828
60°-70°	580.1	12.6	13.9	55°	849	842	830	830	849	758
70°-80°	348.3	7.6	8.3	65°	596	591	577	580	596	590
80°-90°	107.9	2.3	2.6	75°	336	335	318	324	336	356
90°-100°	2.6	0.1	0.1	85°	98	94	84	92	98	105
100°-110°	1.0	0.0	0.0	90°	7	7	3	10	7	16
110°-120°	0.9	0.0	0.0	95°	1	1	1	1	1	2
120°-130°	0.7	0.0	0.0	105°	1	1	1	1	1	1
130°-140°	0.7	0.0	0.0	115°	1	1	1	1	1	1
140°-150°	0.7	0.0	0.0	125°	1	1	1	1	1	1
150°-160°	0.7	0.0	0.0	135°	1	1	1	1	1	0
160°-170°	0.5	0.0	0.0	145°	1	1	1	1	1	1
170°-180°	0.2	0.0	0.0	155°	1	2	2	1	1	1
0°-30°	1216.6	26.4	29.1	165°	1	2	2	1	1	0
0°-40°	2000.0	43.4	47.9	175°	2	2	2	2	2	0
0°-60°	3567.7	77.4	85.4	180°	2	2	2	2	2	
0°-90°	4604.0	99.8	110.2							
90°-120°	4.5	0.1	0.1							
90°-150°	6.6	0.1	0.2							
90°-180°	8.0	0.2	0.2							
0°-180°	4611.9	100.0	110.3							



TEST NUMBER: P588690

CATALOG NUMBER: 24CGTS-NUV-MID-3500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1559.0	1559.0	1559.0	1559.0	1559.0	1559.0	1559.0	1559.0	1559.0	1559.0	1559.0
5°	1553.8	1553.2	1554.0	1551.9	1552.3	1552.7	1552.0	1551.0	1552.0	1551.0	1551.9
10°	1536.1	1535.2	1534.3	1533.3	1533.6	1533.9	1531.9	1530.9	1531.5	1530.8	1532.4
15°	1505.0	1503.9	1503.5	1501.6	1502.4	1501.9	1499.7	1497.8	1498.2	1498.0	1499.2
20°	1462.3	1462.6	1461.0	1457.7	1457.0	1455.5	1455.2	1452.8	1454.2	1453.2	1454.2
25°	1406.6	1406.8	1405.1	1401.5	1400.6	1399.9	1397.7	1396.1	1396.3	1395.4	1396.5
30°	1339.9	1338.6	1336.8	1333.7	1332.6	1331.3	1328.9	1326.8	1327.0	1326.7	1328.5
35°	1262.3	1260.4	1258.8	1255.6	1254.3	1250.5	1248.2	1247.0	1247.5	1246.7	1247.7
40°	1172.8	1171.0	1170.7	1165.2	1164.5	1160.7	1157.8	1156.2	1156.1	1156.3	1157.9
45°	1074.0	1072.4	1070.3	1066.3	1065.1	1061.6	1058.7	1056.1	1056.5	1055.9	1057.7
50°	965.4	964.5	962.9	958.6	957.2	953.1	950.0	947.3	946.3	946.6	948.2
55°	848.6	848.4	846.6	841.7	842.1	836.9	832.8	829.9	829.8	829.7	830.7
60°	724.9	725.2	723.4	718.7	718.7	713.5	709.5	706.8	705.3	705.2	706.9
65°	596.3	597.3	596.3	591.8	591.3	586.3	581.8	577.9	576.6	576.1	579.0
70°	466.0	466.6	466.7	463.0	462.1	457.2	452.2	448.2	446.2	446.2	448.8
75°	336.2	337.0	338.2	335.1	334.9	330.0	325.4	320.9	318.2	319.2	322.0
80°	210.6	212.4	212.6	209.9	211.3	206.7	202.6	197.6	195.3	196.4	200.3
85°	98.5	98.7	95.7	92.3	94.1	90.6	87.3	85.5	84.2	84.8	88.1
90°	6.9	6.2	5.3	4.3	6.7	5.9	4.7	3.4	2.7	3.9	6.5
95°	1.3	1.4	0.9	0.8	0.6	0.6	0.8	1.2	1.1	1.1	0.7
100°	1.3	1.2	0.8	0.7	0.6	0.6	0.8	1.3	1.4	1.2	0.7
105°	1.2	1.0	0.8	0.6	0.6	0.7	0.9	1.4	1.4	1.5	0.8
110°	1.0	0.8	0.8	0.6	0.8	0.8	1.1	1.4	1.4	1.4	1.1
115°	0.8	0.6	0.8	0.6	0.8	0.8	1.4	1.3	1.4	1.4	1.3
120°	0.6	0.4	0.8	0.6	0.8	0.9	1.4	0.6	1.3	0.9	1.4
125°	0.6	0.4	0.8	0.6	0.8	0.9	1.4	0.6	0.8	0.7	1.4
130°	0.6	0.4	0.8	0.6	0.9	1.1	1.4	0.6	0.8	0.7	1.4
135°	0.6	0.4	0.8	0.6	1.0	1.2	1.4	0.7	0.8	0.8	1.4
140°	0.6	0.5	0.8	0.7	1.2	1.4	1.5	0.8	0.8	0.9	1.4
145°	1.2	1.0	0.8	1.3	1.4	1.5	1.5	1.1	1.1	1.0	1.4
150°	1.4	1.4	1.4	1.5	1.6	1.7	1.8	1.4	1.4	1.2	1.4
155°	1.4	1.4	1.4	1.5	1.8	1.9	2.0	1.5	1.6	1.6	1.4
160°	1.5	1.4	1.4	1.5	2.1	2.0	2.2	1.7	1.6	1.6	1.6
165°	1.4	1.4	1.4	1.5	2.2	2.2	2.3	1.7	1.6	1.6	1.6
170°	1.6	1.5	1.5	1.6	2.3	2.2	2.5	1.7	1.6	1.6	1.5
175°	1.6	1.5	1.9	1.9	2.3	2.2	2.5	1.7	1.6	1.6	1.5
180°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6



TEST NUMBER: P588690

CATALOG NUMBER: 24CGTS-NUV-MID-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1559.0	1559.0	1559.0	1559.0	1559.0	1559.0
5°	1551.5	1551.0	1553.1	1552.8	1552.2	1553.8
10°	1531.7	1531.7	1533.1	1534.2	1534.7	1536.1
15°	1498.6	1499.2	1500.7	1502.6	1503.8	1505.0
20°	1453.3	1454.1	1456.4	1458.7	1459.7	1462.3
25°	1395.5	1395.9	1398.8	1401.5	1404.6	1406.6
30°	1327.5	1326.5	1330.9	1333.4	1337.7	1339.9
35°	1247.6	1247.0	1250.5	1254.5	1259.8	1262.3
40°	1157.2	1156.9	1160.7	1165.5	1170.3	1172.8
45°	1057.2	1056.5	1060.5	1065.1	1070.4	1074.0
50°	948.1	946.8	951.7	956.9	962.2	965.4
55°	831.4	830.3	834.3	840.4	844.4	848.6
60°	708.1	707.2	711.5	717.1	720.9	724.9
65°	580.0	579.5	584.7	589.7	593.7	596.3
70°	451.4	450.6	456.0	460.8	463.2	466.0
75°	325.3	324.1	328.2	332.3	334.2	336.2
80°	204.7	203.4	207.2	209.1	209.8	210.6
85°	92.7	91.9	94.9	96.8	97.4	98.5
90°	9.6	10.4	11.4	10.5	8.6	6.9
95°	0.6	0.9	0.8	0.9	1.3	1.3
100°	0.6	0.7	0.7	0.8	1.2	1.3
105°	0.6	0.6	0.7	0.8	1.1	1.2
110°	0.8	0.6	0.6	0.8	0.8	1.0
115°	0.8	0.6	0.6	0.8	0.7	0.8
120°	0.9	0.6	0.6	0.8	0.5	0.6
125°	0.9	0.6	0.6	0.8	0.5	0.6
130°	1.0	0.6	0.6	0.8	0.5	0.6
135°	1.1	0.6	0.6	0.8	0.5	0.6
140°	1.3	0.8	0.7	0.8	0.5	0.6
145°	1.4	1.4	1.2	0.8	1.0	1.2
150°	1.6	1.4	1.4	1.5	1.4	1.4
155°	1.8	1.4	1.4	1.4	1.4	1.4
160°	1.8	1.4	1.5	1.5	1.4	1.5
165°	1.8	1.4	1.5	1.5	1.4	1.4
170°	1.8	1.6	1.6	1.5	1.6	1.6
175°	1.8	2.0	2.1	1.7	1.7	1.6
180°	1.6	1.6	1.6	1.6	1.6	1.6



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270° - · - · 135°-315°









(END OF REPORT)