

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: P276728

Luminaire Tested: **24CZ2-50-S-UNV-L92765-W2A1-U-5000K**

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: P276728
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-50-S-UNV-L92765-W2A1-U-5000K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED TO 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4596.2 lumens
Efficiency: N/A
Efficacy: 113.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

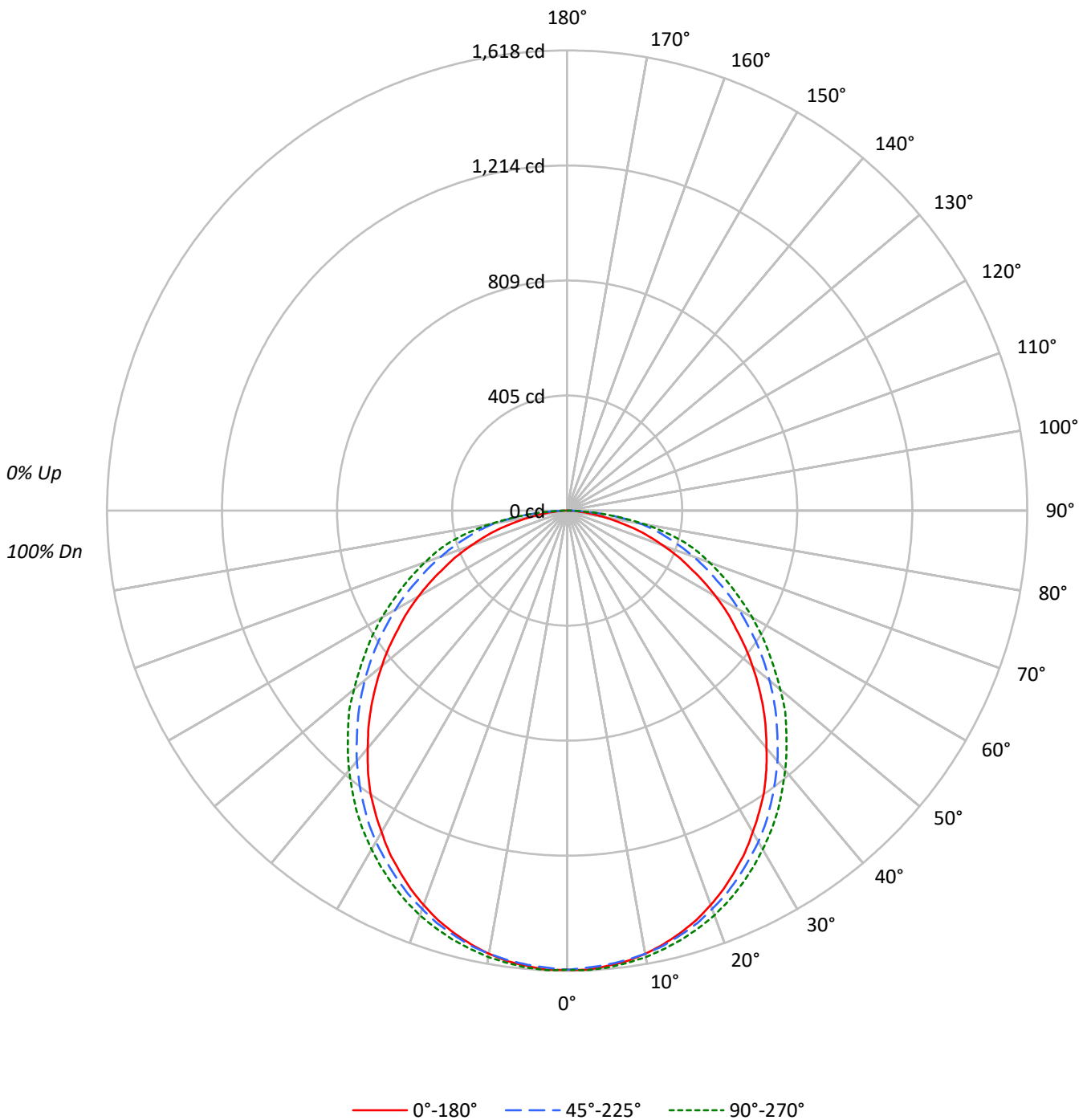
Input Watts (W): 40.641
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69					69			
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42					42			
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33					33			
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2173	2173	2173
5°	2171	2165	2179
10°	2162	2162	2178
15°	2141	2152	2174
20°	2113	2134	2168
25°	2074	2113	2154
30°	2028	2089	2137
35°	1983	2055	2120
40°	1916	2021	2095
45°	1853	1981	2072
50°	1782	1944	2048
55°	1702	1908	2027
60°	1623	1878	2023
65°	1520	1845	2036
70°	1407	1855	2090
75°	1260	1890	2208
80°	1018	2002	2160
85°	766	1758	1714



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.9	3.3
10°-20°	436.8	9.5
20°-30°	656.6	14.3
30°-40°	782.1	17.0
40°-50°	800.4	17.4
50°-60°	720.6	15.7
60°-70°	565.9	12.3
70°-80°	367.3	8.0
80°-90°	113.6	2.5
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°	1246.2	27.1
0°-40°	2028.3	44.1
0°-60°	3549.4	77.2
0°-90°	4596.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4596.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1615	1615	1615	1615	1615	
5°	1607	1610	1603	1612	1613	153
15°	1537	1542	1545	1558	1561	433
25°	1397	1409	1423	1447	1451	644
35°	1207	1222	1251	1282	1291	753
45°	974	997	1041	1080	1089	751
55°	726	758	813	856	864	650
65°	477	514	580	628	640	475
75°	242	289	364	413	425	256
85°	50	92	114	111	111	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1614.7	1614.7	1614.7	1614.7	1614.7
2.5°	1616.1	1616.1	1608.8	1616.1	1617.6
5°	1607.4	1610.3	1603.0	1611.8	1613.2
7.5°	1598.6	1598.6	1594.2	1603.0	1604.5
10°	1582.6	1584.0	1582.6	1592.8	1594.2
12.5°	1562.1	1565.0	1566.5	1576.7	1578.2
15°	1537.3	1541.7	1544.6	1557.7	1560.7
17.5°	1509.6	1514.0	1521.2	1535.8	1538.8
20°	1476.0	1481.8	1490.6	1509.6	1514.0
22.5°	1439.5	1445.3	1459.9	1477.5	1484.8
25°	1397.2	1408.8	1423.4	1446.8	1451.2
27.5°	1354.8	1365.0	1384.0	1408.8	1414.7
30°	1305.2	1321.2	1344.6	1369.4	1375.3
32.5°	1257.0	1273.1	1300.8	1327.1	1334.4
35°	1207.4	1222.0	1251.2	1281.8	1290.6
37.5°	1150.4	1169.4	1201.5	1232.2	1240.9
40°	1090.6	1113.9	1150.4	1182.5	1192.8
42.5°	1033.6	1058.5	1094.9	1130.0	1141.7
45°	973.8	997.1	1040.9	1080.4	1089.1
47.5°	912.5	938.7	985.5	1024.9	1039.5
50°	851.1	878.9	928.5	969.4	978.2
52.5°	789.8	819.0	871.6	915.4	919.8
55°	725.6	757.7	813.2	855.5	864.3
57.5°	667.2	694.9	754.8	798.6	808.8
60°	603.0	633.6	697.8	738.7	751.9
62.5°	541.6	573.8	640.9	681.8	693.5
65°	477.4	513.9	579.6	627.8	639.5
67.5°	421.9	457.0	527.0	573.8	585.4
70°	357.7	397.1	471.6	519.7	531.4
72.5°	302.2	343.1	417.5	464.3	481.8
75°	242.3	289.1	363.5	413.2	424.8
77.5°	184.0	238.0	313.9	351.8	351.8
80°	131.4	188.3	258.4	275.9	278.8
82.5°	86.1	141.6	191.3	189.8	189.8
85°	49.6	92.0	113.9	111.0	111.0
87.5°	19.0	38.0	40.9	40.9	39.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)