

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: P276729

Luminaire Tested: **24CZ2-50-S-UNV-L92765-W2A1-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: P276729  
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-5500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 5500K CCT  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

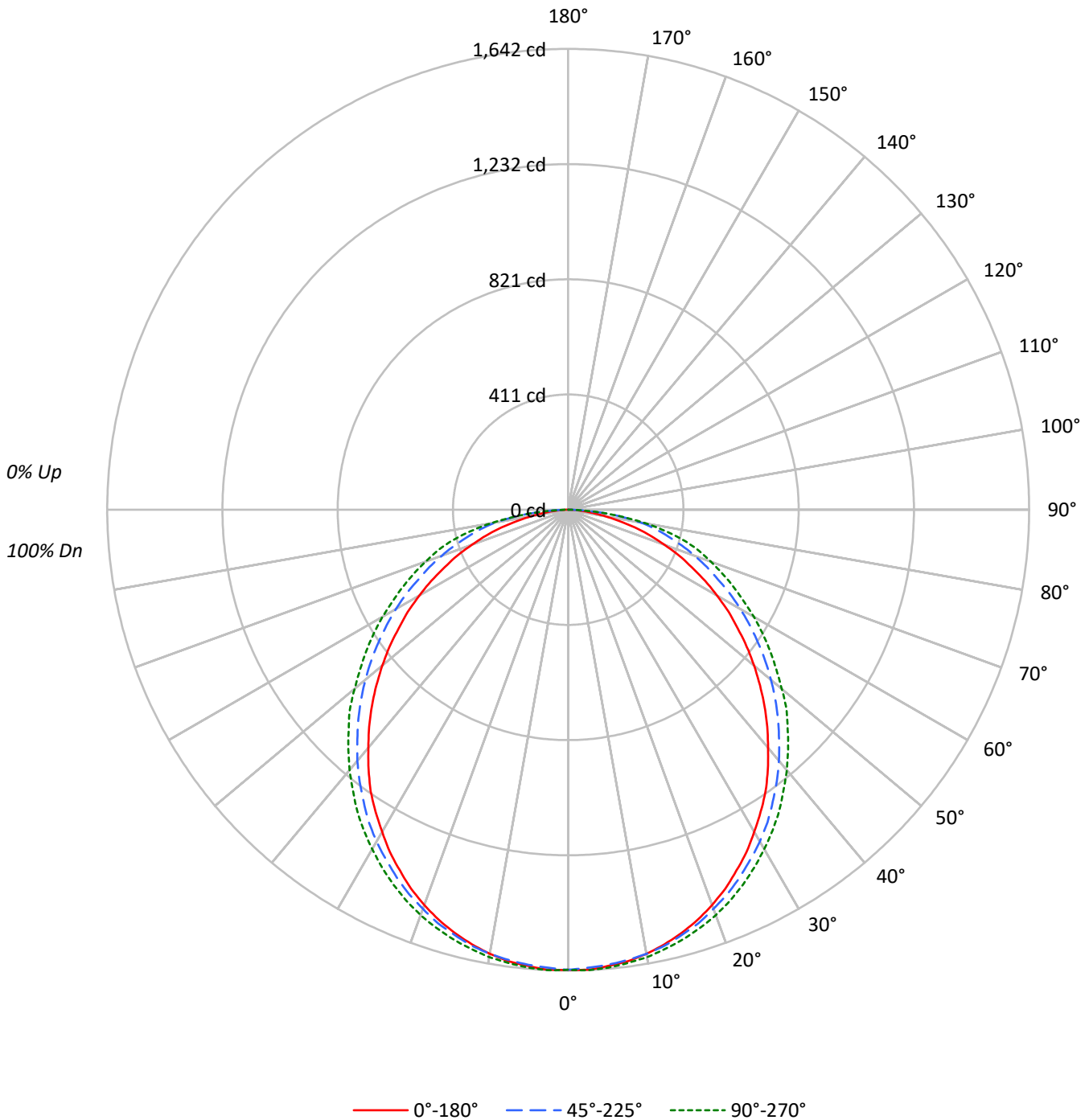
Lumens per Lamp: N/A  
Luminaire Lumens: 4666.8 lumens  
Efficiency: N/A  
Efficacy: 114.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 40.827  
Input Voltage (V): 120  
Input Current (Ain): 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°	2206	2206	2206
5°	2204	2198	2212
10°	2195	2195	2212
15°	2174	2185	2207
20°	2146	2167	2201
25°	2106	2146	2188
30°	2059	2121	2169
35°	2014	2087	2152
40°	1945	2052	2127
45°	1881	2011	2104
50°	1809	1973	2079
55°	1728	1937	2059
60°	1647	1907	2054
65°	1543	1874	2067
70°	1429	1884	2123
75°	1279	1919	2243
80°	1034	2033	2194
85°	778	1785	1740



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	155.2	3.3
10°-20°	443.5	9.5
20°-30°	666.7	14.3
30°-40°	794.1	17.0
40°-50°	812.7	17.4
50°-60°	731.7	15.7
60°-70°	574.6	12.3
70°-80°	372.9	8.0
80°-90°	115.3	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°	1265.4	27.1
0°-40°	2059.5	44.1
0°-60°	3603.9	77.2
0°-90°	4666.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4666.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1640	1640	1640	1640	1640	
5°	1632	1635	1628	1636	1638	155
15°	1561	1565	1568	1582	1585	440
25°	1419	1430	1445	1469	1474	654
35°	1226	1241	1270	1302	1310	765
45°	989	1012	1057	1097	1106	762
55°	737	769	826	869	878	660
65°	485	522	588	637	649	483
75°	246	294	369	420	431	260
85°	50	93	116	113	113	61
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1639.5	1639.5	1639.5	1639.5	1639.5
2.5°	1641.0	1641.0	1633.5	1641.0	1642.4
5°	1632.1	1635.0	1627.6	1636.5	1638.0
7.5°	1623.2	1623.2	1618.7	1627.6	1629.1
10°	1606.9	1608.3	1606.9	1617.2	1618.7
12.5°	1586.1	1589.1	1590.6	1600.9	1602.4
15°	1560.9	1565.4	1568.3	1581.7	1584.6
17.5°	1532.7	1537.2	1544.6	1559.4	1562.4
20°	1498.7	1504.6	1513.5	1532.7	1537.2
22.5°	1461.6	1467.5	1482.3	1500.1	1507.5
25°	1418.6	1430.5	1445.3	1469.0	1473.5
27.5°	1375.6	1386.0	1405.3	1430.5	1436.4
30°	1325.2	1341.5	1365.2	1390.4	1396.4
32.5°	1276.3	1292.6	1320.8	1347.5	1354.9
35°	1225.9	1240.7	1270.4	1301.5	1310.4
37.5°	1168.1	1187.4	1220.0	1251.1	1260.0
40°	1107.3	1131.0	1168.1	1200.7	1211.1
42.5°	1049.5	1074.7	1111.8	1147.3	1159.2
45°	988.7	1012.4	1056.9	1096.9	1105.8
47.5°	926.5	953.2	1000.6	1040.6	1055.4
50°	864.2	892.4	942.8	984.3	993.2
52.5°	802.0	831.6	885.0	929.4	933.9
55°	736.7	769.3	825.7	868.7	877.6
57.5°	677.4	705.6	766.4	810.8	821.2
60°	612.2	643.3	708.6	750.1	763.4
62.5°	550.0	582.6	650.8	692.3	704.1
65°	484.7	521.8	588.5	637.4	649.3
67.5°	428.4	464.0	535.1	582.6	594.4
70°	363.2	403.2	478.8	527.7	539.6
72.5°	306.8	348.4	424.0	471.4	489.2
75°	246.1	293.5	369.1	419.5	431.4
77.5°	186.8	241.6	318.7	357.2	357.2
80°	133.4	191.2	262.4	280.2	283.1
82.5°	87.5	143.8	194.2	192.7	192.7
85°	50.4	93.4	115.6	112.7	112.7
87.5°	19.3	38.5	41.5	41.5	40.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)