

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: P276724

Luminaire Tested: **24CZ2-50-S-UNV-L92765-W2A1-U-3000K**

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: P276724  
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-3000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4051.5 lumens  
Efficiency: N/A  
Efficacy: 103.0 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

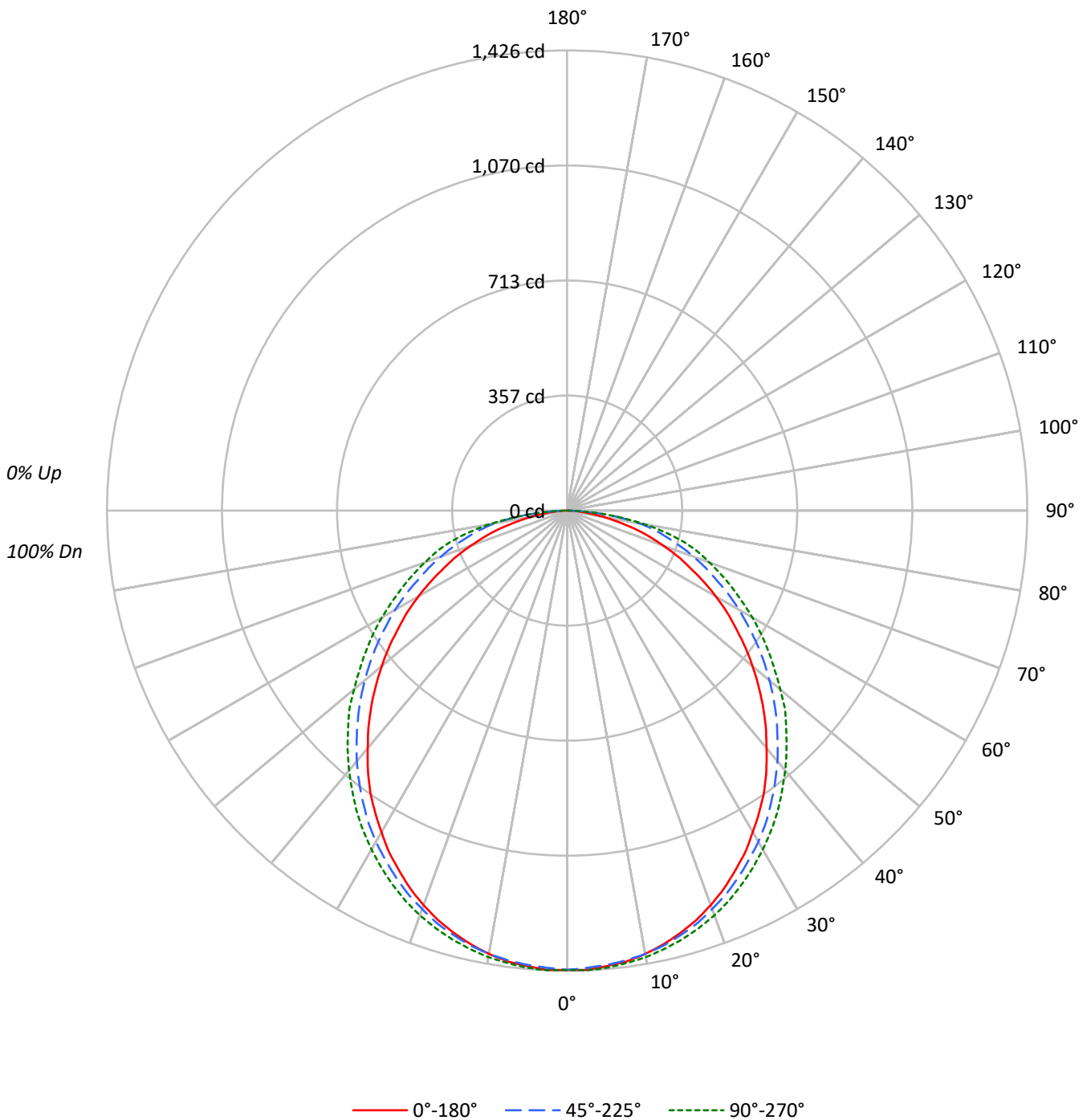
Input Watts (W): 39.339  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1915	1915	1915
5°	1914	1908	1921
10°	1906	1906	1920
15°	1888	1897	1916
20°	1863	1881	1911
25°	1828	1863	1899
30°	1787	1841	1883
35°	1748	1812	1869
40°	1688	1781	1847
45°	1633	1746	1827
50°	1571	1713	1805
55°	1500	1681	1787
60°	1430	1655	1784
65°	1340	1627	1795
70°	1240	1635	1843
75°	1110	1666	1947
80°	897	1765	1905
85°	676	1550	1510



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	134.7	3.3
10°-20°	385.0	9.5
20°-30°	578.8	14.3
30°-40°	689.4	17.0
40°-50°	705.6	17.4
50°-60°	635.2	15.7
60°-70°	498.9	12.3
70°-80°	323.8	8.0
80°-90°	100.1	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°	1098.5	27.1
0°-40°	1787.9	44.1
0°-60°	3128.8	77.2
0°-90°	4051.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4051.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1423	1423	1423	1423	1423	
5°	1417	1420	1413	1421	1422	135
15°	1355	1359	1362	1373	1376	382
25°	1232	1242	1255	1275	1279	567
35°	1064	1077	1103	1130	1138	664
45°	858	879	918	952	960	662
55°	640	668	717	754	762	573
65°	421	453	511	553	564	419
75°	214	255	320	364	374	226
85°	44	81	100	98	98	53
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1423.3	1423.3	1423.3	1423.3	1423.3
2.5°	1424.6	1424.6	1418.2	1424.6	1425.9
5°	1416.9	1419.5	1413.0	1420.8	1422.0
7.5°	1409.2	1409.2	1405.3	1413.0	1414.3
10°	1395.0	1396.3	1395.0	1404.0	1405.3
12.5°	1377.0	1379.6	1380.9	1389.9	1391.2
15°	1355.1	1359.0	1361.6	1373.1	1375.7
17.5°	1330.7	1334.5	1341.0	1353.8	1356.4
20°	1301.1	1306.2	1313.9	1330.7	1334.5
22.5°	1268.9	1274.0	1286.9	1302.4	1308.8
25°	1231.6	1241.9	1254.7	1275.3	1279.2
27.5°	1194.3	1203.3	1220.0	1241.9	1247.0
30°	1150.5	1164.7	1185.2	1207.1	1212.3
32.5°	1108.0	1122.2	1146.6	1169.8	1176.2
35°	1064.3	1077.1	1102.9	1129.9	1137.6
37.5°	1014.1	1030.8	1059.1	1086.2	1093.9
40°	961.3	981.9	1014.1	1042.4	1051.4
42.5°	911.1	933.0	965.2	996.1	1006.4
45°	858.4	879.0	917.6	952.3	960.0
47.5°	804.3	827.5	868.7	903.4	916.3
50°	750.3	774.7	818.5	854.5	862.2
52.5°	696.2	722.0	768.3	806.9	810.8
55°	639.6	667.9	716.8	754.1	761.9
57.5°	588.1	612.6	665.3	703.9	712.9
60°	531.5	558.5	615.1	651.2	662.8
62.5°	477.4	505.8	565.0	601.0	611.3
65°	420.8	453.0	510.9	553.4	563.7
67.5°	371.9	402.8	464.6	505.8	516.1
70°	315.3	350.0	415.7	458.1	468.4
72.5°	266.4	302.4	368.1	409.2	424.7
75°	213.6	254.8	320.4	364.2	374.5
77.5°	162.2	209.8	276.7	310.1	310.1
80°	115.8	166.0	227.8	243.2	245.8
82.5°	75.9	124.8	168.6	167.3	167.3
85°	43.8	81.1	100.4	97.8	97.8
87.5°	16.7	33.5	36.0	36.0	34.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)