

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: P261159

Luminaire Tested: **24CZ-LD5-50-S-UNV-L82765-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P261159  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25694)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-50-S-UNV-L82765-W2A1-U-3000K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 80 CRI LEDS TUNED AT 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4840.0 lumens  
Efficiency: N/A  
Efficacy: 136.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

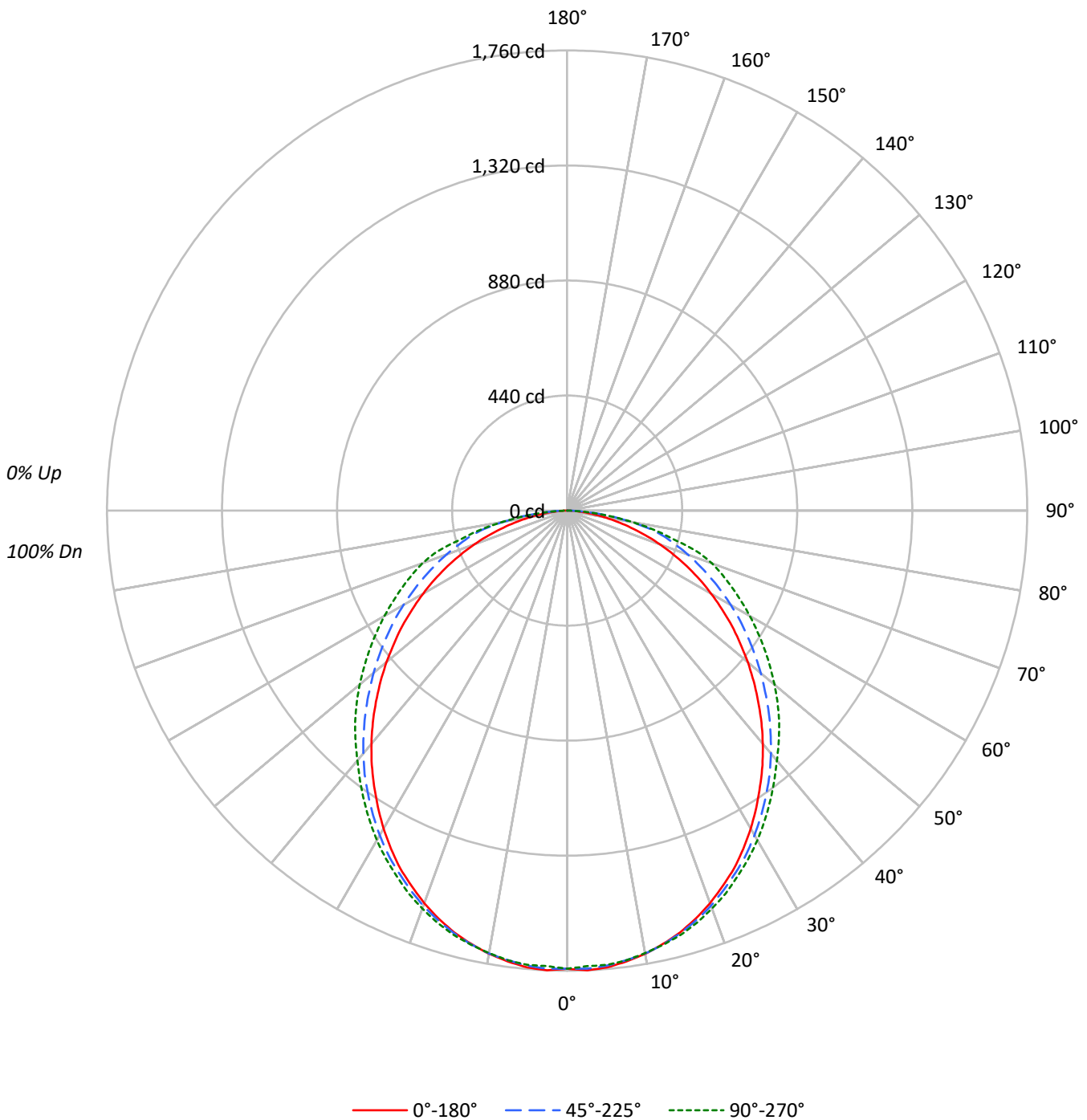
Input Watts (W): 35.433  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83					83			
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69					69			
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	69	60	54	66	59	53	64	58	52	62	56	52	50					50			
5	76	63	53	47	73	61	53	47	59	52	46	57	51	45	55	50	45	43					43			
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38					38			
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33					33			
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30					30			
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27					27			
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24					24			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2358	2358	2358
5°	2369	2360	2356
10°	2352	2350	2348
15°	2326	2331	2340
20°	2288	2304	2320
25°	2243	2267	2290
30°	2182	2227	2262
35°	2113	2180	2225
40°	2045	2130	2192
45°	1967	2075	2182
50°	1888	2023	2168
55°	1806	1980	2161
60°	1712	1946	2171
65°	1610	1923	2215
70°	1482	1932	2319
75°	1314	2001	2160
80°	1098	1897	1946
85°	820	1516	1392



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	165.7	3.4
10°-20°	471.1	9.7
20°-30°	702.1	14.5
30°-40°	826.5	17.1
40°-50°	839.9	17.4
50°-60°	755.2	15.6
60°-70°	596.6	12.3
70°-80°	378.5	7.8
80°-90°	104.5	2.2
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°	1338.9	27.7
0°-40°	2165.4	44.7
0°-60°	3760.5	77.7
0°-90°	4840.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4840.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1752	1752	1752	1752	1752	
5°	1754	1739	1747	1744	1744	166
15°	1670	1662	1673	1678	1680	470
25°	1511	1509	1527	1536	1543	695
35°	1287	1295	1327	1342	1354	805
45°	1034	1048	1090	1122	1147	798
55°	770	789	844	899	921	687
65°	506	531	604	670	696	501
75°	253	296	385	419	416	269
85°	53	92	98	90	90	65
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1752.2	1752.2	1752.2	1752.2	1752.2
2.5°	1760.2	1747.3	1753.8	1750.6	1744.1
5°	1753.8	1739.3	1747.3	1744.1	1744.1
7.5°	1739.3	1728.0	1734.5	1732.8	1734.5
10°	1721.6	1710.3	1720.0	1720.0	1718.3
12.5°	1697.4	1687.8	1699.0	1699.0	1700.6
15°	1670.0	1662.0	1673.3	1678.1	1679.7
17.5°	1636.2	1628.2	1642.7	1647.5	1652.3
20°	1597.6	1594.3	1608.8	1613.7	1620.1
22.5°	1554.1	1554.1	1568.6	1575.0	1584.7
25°	1510.6	1509.0	1526.7	1536.4	1542.8
27.5°	1459.1	1460.7	1483.2	1492.9	1500.9
30°	1404.3	1407.5	1433.3	1444.6	1455.8
32.5°	1346.3	1352.8	1381.8	1394.6	1405.9
35°	1286.7	1294.8	1327.0	1341.5	1354.4
37.5°	1227.2	1238.4	1272.3	1286.7	1301.2
40°	1164.4	1174.0	1212.7	1230.4	1248.1
42.5°	1099.9	1112.8	1151.5	1177.2	1198.2
45°	1033.9	1048.4	1090.3	1122.5	1146.6
47.5°	967.9	987.2	1027.5	1070.9	1091.9
50°	901.9	921.2	966.3	1014.6	1035.5
52.5°	834.2	853.5	905.1	955.0	977.5
55°	769.8	789.1	843.9	898.6	921.2
57.5°	702.2	723.1	784.3	840.7	863.2
60°	636.1	657.1	723.1	782.7	806.8
62.5°	571.7	594.3	663.5	726.3	750.5
65°	505.7	531.4	603.9	669.9	695.7
67.5°	441.3	470.3	545.9	615.2	642.6
70°	376.8	410.7	491.2	562.0	589.4
72.5°	314.0	351.1	436.4	507.3	521.8
75°	252.8	296.3	384.9	418.7	415.5
77.5°	194.9	243.2	326.9	333.4	343.0
80°	141.7	194.9	244.8	257.7	251.2
82.5°	93.4	146.6	175.5	169.1	167.5
85°	53.1	91.8	98.2	90.2	90.2
87.5°	22.5	37.0	32.2	24.2	22.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)