

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: P260649

Luminaire Tested: **24CZ-LD5-50-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P260649  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25697)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-50-UNV-L93050-W2A1-U-4000K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (336) 90 CRI LEDS TUNED AT 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4613.9 lumens  
Efficiency: N/A  
Efficacy: 125.9 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

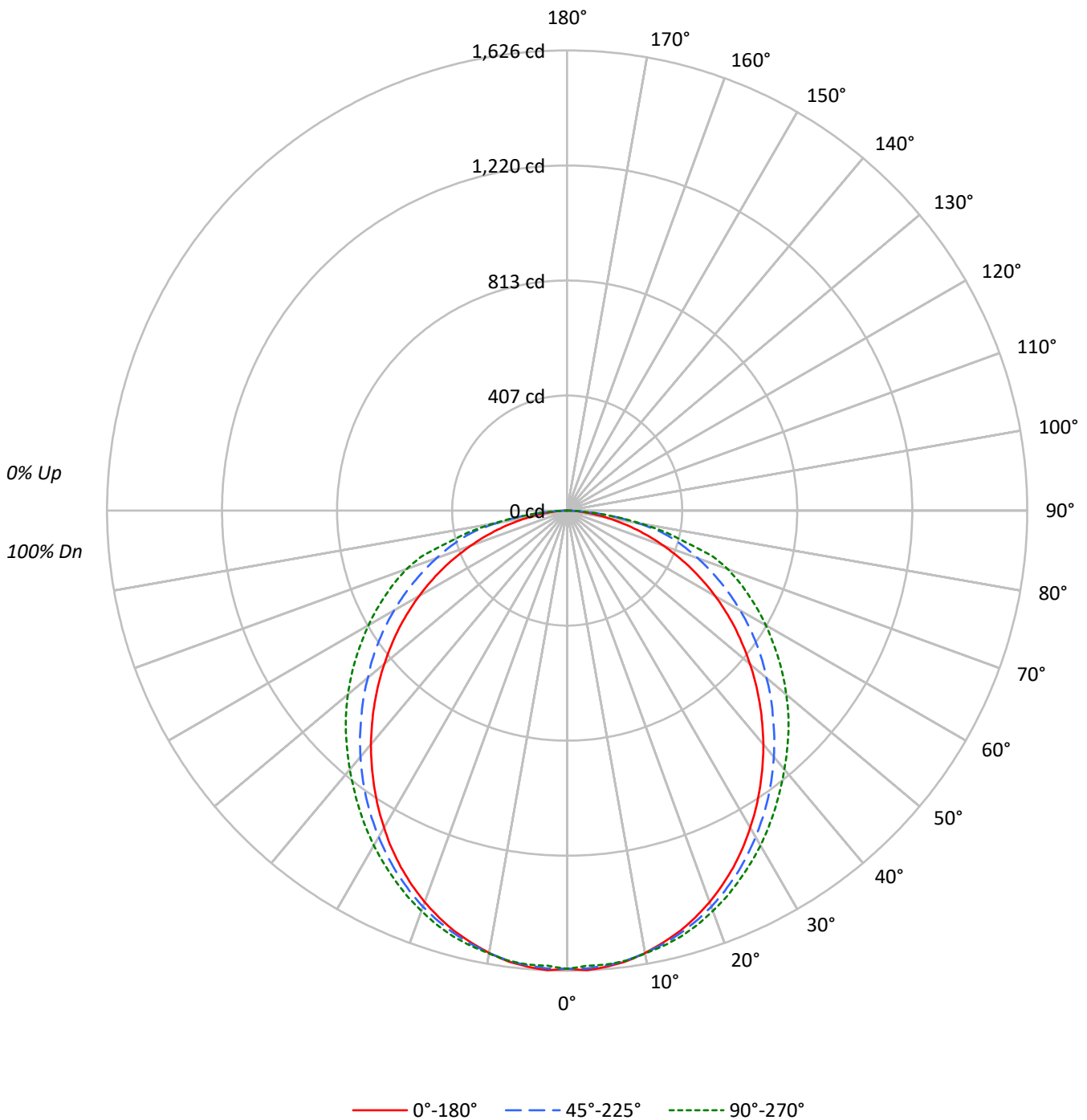
Input Watts (W): 36.640512  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	95	88	81	76	84	79	74	81	76	72	78	74	71	68					68			
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	60	57					57			
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42					42			
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37					37			
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	35	32					32			
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29					29			
9	56	42	34	28	54	42	34	28	41	33	28	40	33	28	38	32	28	26					26			
10	52	39	31	26	51	39	31	26	38	31	26	37	30	25	36	30	25	24					24			

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

	0°	45°	90°
0°	2179	2179	2179
5°	2185	2178	2174
10°	2169	2169	2171
15°	2143	2154	2170
20°	2108	2133	2156
25°	2064	2104	2139
30°	2010	2069	2123
35°	1954	2034	2107
40°	1895	1995	2098
45°	1831	1957	2104
50°	1766	1924	2116
55°	1701	1912	2138
60°	1624	1900	2181
65°	1539	1901	2253
70°	1423	1933	2374
75°	1273	2020	2258
80°	1065	1934	2069
85°	804	1488	1414



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	153.0	3.3
10°-20°	435.5	9.4
20°-30°	651.0	14.1
30°-40°	772.3	16.7
40°-50°	794.9	17.2
50°-60°	729.2	15.8
60°-70°	589.6	12.8
70°-80°	382.7	8.3
80°-90°	105.5	2.3
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°	1239.5	26.9
0°-40°	2011.9	43.6
0°-60°	3536.0	76.6
0°-90°	4613.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4613.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1619	1619	1619	1619	1619	
5°	1618	1607	1613	1611	1610	153
15°	1539	1532	1547	1553	1558	433
25°	1390	1392	1417	1430	1441	640
35°	1190	1199	1238	1265	1283	744
45°	962	978	1028	1077	1106	742
55°	725	747	815	882	912	648
65°	483	512	597	676	708	478
75°	245	291	389	434	434	260
85°	52	88	96	93	92	64
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1619.2	1619.2	1619.2	1619.2	1619.2
2.5°	1625.5	1612.9	1619.2	1617.6	1609.7
5°	1617.6	1606.6	1612.9	1611.3	1609.7
7.5°	1606.6	1595.5	1603.4	1601.9	1603.4
10°	1587.6	1578.2	1587.6	1589.2	1589.2
12.5°	1563.9	1556.0	1568.7	1571.8	1575.0
15°	1538.7	1532.3	1546.6	1552.9	1557.6
17.5°	1507.1	1502.3	1519.7	1527.6	1533.9
20°	1472.3	1470.7	1489.7	1497.6	1505.5
22.5°	1432.8	1432.8	1454.9	1464.4	1475.5
25°	1390.2	1391.7	1417.0	1429.7	1440.7
27.5°	1344.4	1345.9	1375.9	1391.7	1404.4
30°	1293.8	1300.1	1331.7	1352.3	1366.5
32.5°	1243.3	1251.1	1285.9	1309.6	1325.4
35°	1189.5	1199.0	1238.5	1265.4	1282.7
37.5°	1134.2	1145.3	1188.0	1218.0	1238.5
40°	1079.0	1091.6	1135.8	1170.6	1194.3
42.5°	1020.5	1034.7	1083.7	1124.8	1150.0
45°	962.1	977.9	1028.4	1077.4	1105.8
47.5°	903.6	922.6	976.3	1030.0	1060.0
50°	843.6	862.5	919.4	981.0	1011.0
52.5°	783.5	805.7	868.9	932.0	962.1
55°	725.1	747.2	815.1	881.5	911.5
57.5°	665.1	687.2	761.4	830.9	861.0
60°	603.5	628.7	706.1	777.2	810.4
62.5°	543.4	570.3	652.4	728.3	759.9
65°	483.4	511.8	597.1	676.1	707.7
67.5°	421.8	455.0	543.4	624.0	657.2
70°	361.8	398.1	491.3	571.9	603.5
72.5°	303.3	342.8	439.2	521.3	540.3
75°	244.9	290.7	388.6	434.4	434.4
77.5°	189.6	240.1	331.7	349.1	358.6
80°	137.4	192.7	249.6	270.1	267.0
82.5°	91.6	146.9	178.5	178.5	173.8
85°	52.1	88.5	96.4	93.2	91.6
87.5°	22.1	33.2	30.0	23.7	20.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)