

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: P261035

Luminaire Tested: **24CZ-LD5-40SE-S-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P261035  
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-LD5-40SE-S-UNV-L83050-W2A1-U-4500K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER  
WITH SMOOTH LENS  
Light Source: (168) 80 CRI LEDS TUNED AT 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4377.0 lumens  
Efficiency: N/A  
Efficacy: 137.2 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

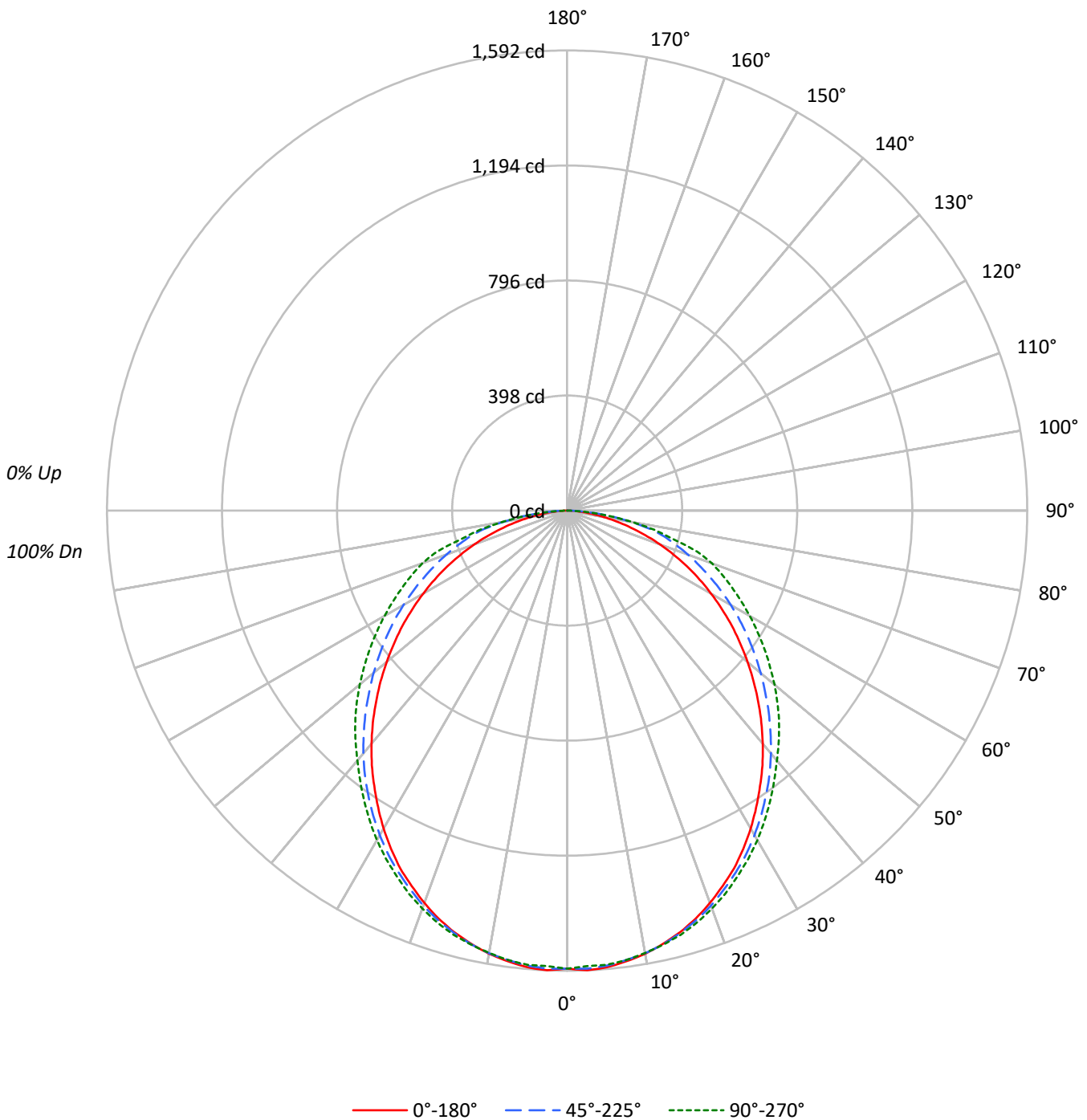
Input Watts (W): 31.901139  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	52	62	56	52	50
5	76	63	53	47	73	61	53	47	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	2132	2132	2132
5°	2142	2134	2130
10°	2127	2125	2123
15°	2104	2108	2116
20°	2069	2083	2098
25°	2028	2050	2071
30°	1973	2014	2046
35°	1911	1971	2012
40°	1850	1926	1982
45°	1779	1876	1973
50°	1707	1829	1960
55°	1633	1790	1954
60°	1548	1760	1964
65°	1456	1739	2003
70°	1341	1747	2097
75°	1189	1810	1953
80°	993	1715	1760
85°	743	1371	1260



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	149.8	3.4
10°-20°	426.1	9.7
20°-30°	635.0	14.5
30°-40°	747.4	17.1
40°-50°	759.6	17.4
50°-60°	682.9	15.6
60°-70°	539.5	12.3
70°-80°	342.3	7.8
80°-90°	94.5	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°	1210.8	27.7
0°-40°	1958.3	44.7
0°-60°	3400.8	77.7
0°-90°	4377.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4377.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1585	1585	1585	1585	1585	
5°	1586	1573	1580	1577	1577	150
15°	1510	1503	1513	1518	1519	425
25°	1366	1365	1381	1389	1395	628
35°	1164	1171	1200	1213	1225	728
45°	935	948	986	1015	1037	721
55°	696	714	763	813	833	622
65°	457	481	546	606	629	453
75°	229	268	348	379	376	243
85°	48	83	89	82	82	59
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1584.6	1584.6	1584.6	1584.6	1584.6
2.5°	1591.8	1580.2	1586.0	1583.1	1577.3
5°	1586.0	1572.9	1580.2	1577.3	1577.3
7.5°	1572.9	1562.7	1568.5	1567.1	1568.5
10°	1556.9	1546.7	1555.4	1555.4	1554.0
12.5°	1535.0	1526.3	1536.5	1536.5	1537.9
15°	1510.3	1503.0	1513.2	1517.6	1519.0
17.5°	1479.7	1472.4	1485.5	1489.9	1494.3
20°	1444.7	1441.8	1454.9	1459.3	1465.1
22.5°	1405.4	1405.4	1418.5	1424.4	1433.1
25°	1366.1	1364.6	1380.7	1389.4	1395.2
27.5°	1319.5	1320.9	1341.3	1350.1	1357.4
30°	1270.0	1272.9	1296.2	1306.4	1316.6
32.5°	1217.5	1223.4	1249.6	1261.2	1271.4
35°	1163.7	1170.9	1200.1	1213.2	1224.8
37.5°	1109.8	1120.0	1150.5	1163.7	1176.8
40°	1053.0	1061.7	1096.7	1112.7	1128.7
42.5°	994.7	1006.4	1041.3	1064.6	1083.6
45°	935.0	948.1	986.0	1015.1	1037.0
47.5°	875.3	892.8	929.2	968.5	987.4
50°	815.6	833.1	873.8	917.5	936.5
52.5°	754.4	771.9	818.5	863.6	884.0
55°	696.2	713.6	763.1	812.7	833.1
57.5°	635.0	653.9	709.3	760.2	780.6
60°	575.3	594.2	653.9	707.8	729.7
62.5°	517.0	537.4	600.0	656.8	678.7
65°	457.3	480.6	546.1	605.9	629.2
67.5°	399.1	425.3	493.7	556.3	581.1
70°	340.8	371.4	444.2	508.3	533.0
72.5°	284.0	317.5	394.7	458.8	471.9
75°	228.7	268.0	348.1	378.7	375.7
77.5°	176.2	219.9	295.6	301.5	310.2
80°	128.2	176.2	221.4	233.0	227.2
82.5°	84.5	132.5	158.7	152.9	151.5
85°	48.1	83.0	88.8	81.6	81.6
87.5°	20.4	33.5	29.1	21.8	20.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)