

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: P229974

Luminaire Tested: **24CZ-LD5-50-UNV-L940-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P229974
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-L940-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH RIBBED LENS
Light Source: (168) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4401.0 lumens
Efficiency: N/A
Efficacy: 108.2 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

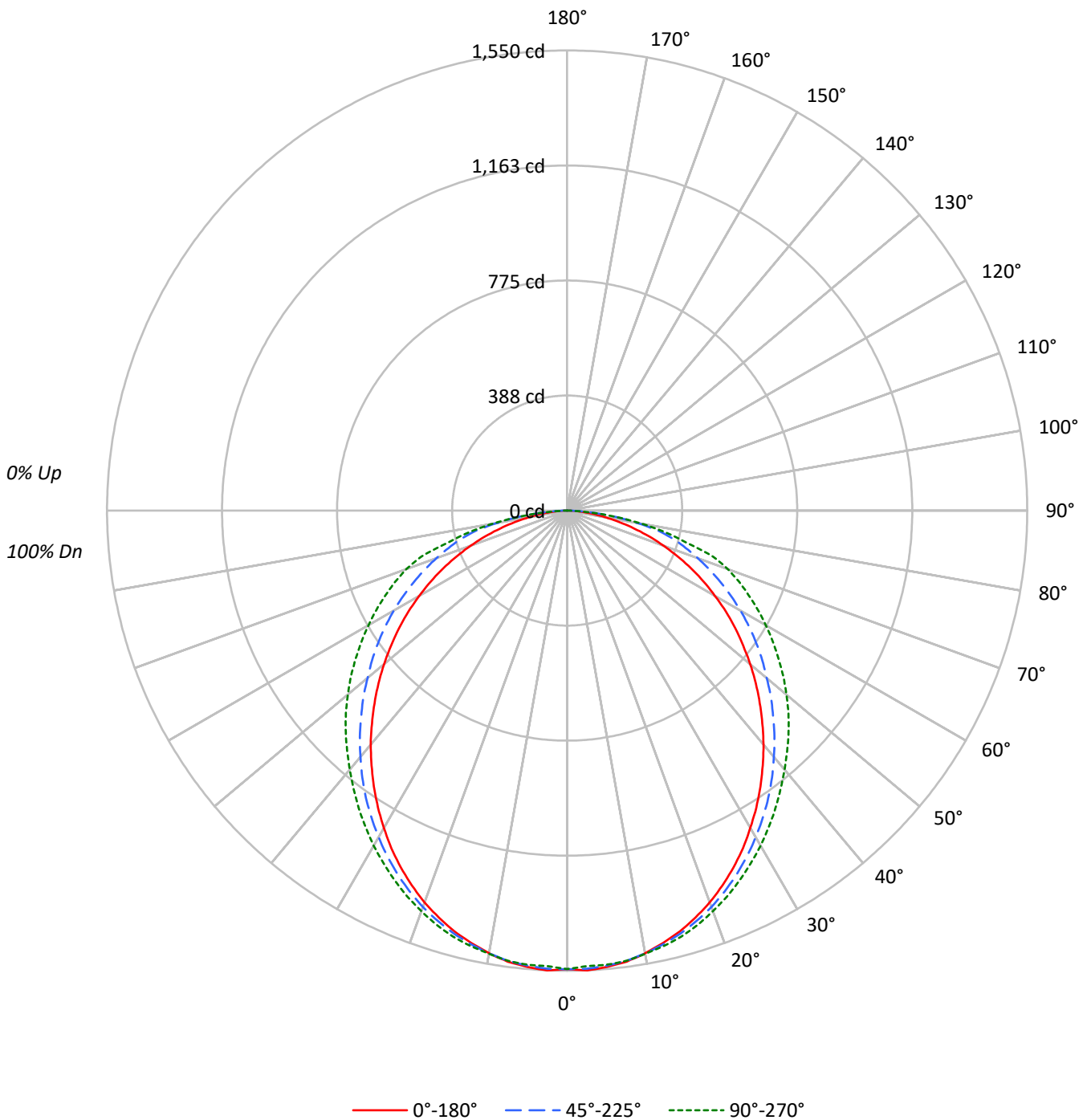
Input Watts (W): 40.68
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	60	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	35	32
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	40	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	31	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2078	2078	2078
5°	2084	2078	2074
10°	2069	2069	2071
15°	2044	2055	2070
20°	2011	2035	2056
25°	1969	2007	2040
30°	1917	1974	2025
35°	1864	1940	2010
40°	1808	1903	2001
45°	1746	1867	2007
50°	1684	1836	2019
55°	1622	1824	2040
60°	1549	1813	2080
65°	1468	1813	2149
70°	1358	1843	2264
75°	1214	1927	2154
80°	1016	1845	1974
85°	767	1419	1349



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.0	3.3
10°-20°	415.4	9.4
20°-30°	621.0	14.1
30°-40°	736.7	16.7
40°-50°	758.3	17.2
50°-60°	695.6	15.8
60°-70°	562.4	12.8
70°-80°	365.0	8.3
80°-90°	100.6	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°	1182.3	26.9
0°-40°	1919.1	43.6
0°-60°	3372.9	76.6
0°-90°	4401.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4401.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1544	1544	1544	1544	1544	
5°	1543	1532	1538	1537	1536	146
15°	1468	1462	1475	1481	1486	413
25°	1326	1328	1352	1364	1374	610
35°	1135	1144	1181	1207	1224	710
45°	918	933	981	1028	1055	708
55°	692	713	778	841	870	618
65°	461	488	570	645	675	456
75°	234	277	371	414	414	248
85°	50	84	92	89	87	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1544.5	1544.5	1544.5	1544.5	1544.5
2.5°	1550.5	1538.5	1544.5	1543.0	1535.5
5°	1543.0	1532.5	1538.5	1537.0	1535.5
7.5°	1532.5	1521.9	1529.5	1527.9	1529.5
10°	1514.4	1505.3	1514.4	1515.9	1515.9
12.5°	1491.8	1484.2	1496.3	1499.3	1502.3
15°	1467.7	1461.6	1475.2	1481.2	1485.8
17.5°	1437.5	1433.0	1449.6	1457.1	1463.2
20°	1404.4	1402.9	1421.0	1428.5	1436.0
22.5°	1366.7	1366.7	1387.8	1396.9	1407.4
25°	1326.0	1327.5	1351.6	1363.7	1374.2
27.5°	1282.3	1283.8	1312.5	1327.5	1339.6
30°	1234.1	1240.1	1270.3	1289.9	1303.4
32.5°	1185.9	1193.4	1226.6	1249.2	1264.2
35°	1134.7	1143.7	1181.4	1207.0	1223.6
37.5°	1081.9	1092.5	1133.2	1161.8	1181.4
40°	1029.2	1041.2	1083.4	1116.6	1139.2
42.5°	973.4	987.0	1033.7	1072.9	1097.0
45°	917.7	932.7	981.0	1027.7	1054.8
47.5°	861.9	880.0	931.2	982.5	1011.1
50°	804.7	822.7	877.0	935.8	964.4
52.5°	747.4	768.5	828.8	889.0	917.7
55°	691.6	712.7	777.5	840.8	869.5
57.5°	634.4	655.5	726.3	792.6	821.2
60°	575.6	599.7	673.6	741.4	773.0
62.5°	518.4	544.0	622.3	694.7	724.8
65°	461.1	488.2	569.6	644.9	675.1
67.5°	402.3	434.0	518.4	595.2	626.8
70°	345.1	379.7	468.6	545.5	575.6
72.5°	289.3	327.0	418.9	497.3	515.3
75°	233.6	277.3	370.7	414.4	414.4
77.5°	180.8	229.0	316.4	333.0	342.1
80°	131.1	183.8	238.1	257.7	254.7
82.5°	87.4	140.1	170.3	170.3	165.8
85°	49.7	84.4	91.9	88.9	87.4
87.5°	21.1	31.6	28.6	22.6	19.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)