

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: P230085

Luminaire Tested: **24CZ-LD5-50SE-S-UNV-L935-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P230085  
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-LD5-50SE-S-UNV-L935-CD1-U  
Description: CRUZE 2x4 LED TROFFER  
WITH SMOOTH LENS  
Light Source: (84) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4467.0 lumens  
Efficiency: N/A  
Efficacy: 95.9 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

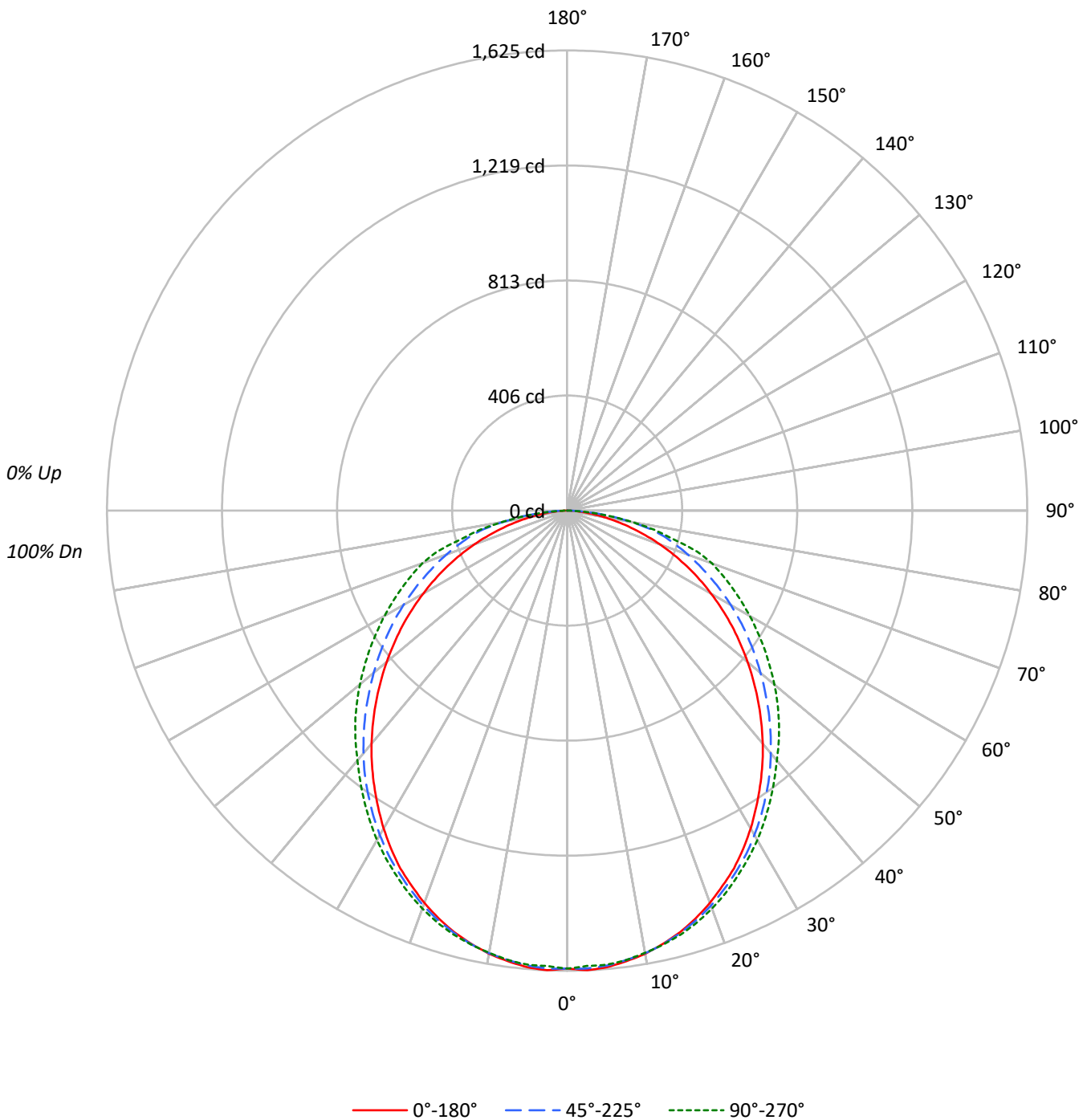
Input Watts (W): 46.56  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2176	2176	2176
5°	2186	2178	2174
10°	2171	2169	2167
15°	2147	2151	2159
20°	2111	2126	2141
25°	2070	2092	2114
30°	2014	2055	2087
35°	1951	2012	2053
40°	1887	1966	2023
45°	1816	1915	2014
50°	1742	1867	2000
55°	1667	1827	1994
60°	1580	1796	2004
65°	1486	1775	2044
70°	1368	1783	2140
75°	1213	1847	1994
80°	1013	1750	1797
85°	756	1400	1284



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	152.9	3.4
10°-20°	434.8	9.7
20°-30°	648.0	14.5
30°-40°	762.8	17.1
40°-50°	775.2	17.4
50°-60°	697.0	15.6
60°-70°	550.6	12.3
70°-80°	349.3	7.8
80°-90°	96.4	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°	1235.7	27.7
0°-40°	1998.5	44.7
0°-60°	3470.7	77.7
0°-90°	4467.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4467.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1617	1617	1617	1617	1617	
5°	1619	1605	1613	1610	1610	153
15°	1541	1534	1544	1549	1550	434
25°	1394	1393	1409	1418	1424	641
35°	1188	1195	1225	1238	1250	743
45°	954	968	1006	1036	1058	736
55°	710	728	779	829	850	634
65°	467	490	557	618	642	462
75°	233	274	355	386	384	248
85°	49	85	91	83	83	60
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1617.1	1617.1	1617.1	1617.1	1617.1
2.5°	1624.6	1612.7	1618.6	1615.6	1609.7
5°	1618.6	1605.2	1612.7	1609.7	1609.7
7.5°	1605.2	1594.8	1600.8	1599.3	1600.8
10°	1588.9	1578.5	1587.4	1587.4	1585.9
12.5°	1566.6	1557.7	1568.1	1568.1	1569.6
15°	1541.3	1533.9	1544.3	1548.8	1550.3
17.5°	1510.1	1502.7	1516.1	1520.5	1525.0
20°	1474.4	1471.5	1484.9	1489.3	1495.3
22.5°	1434.3	1434.3	1447.7	1453.6	1462.6
25°	1394.2	1392.7	1409.0	1418.0	1423.9
27.5°	1346.6	1348.1	1368.9	1377.8	1385.3
30°	1296.1	1299.1	1322.8	1333.2	1343.6
32.5°	1242.6	1248.5	1275.3	1287.2	1297.6
35°	1187.6	1195.0	1224.7	1238.1	1250.0
37.5°	1132.6	1143.0	1174.2	1187.6	1201.0
40°	1074.6	1083.5	1119.2	1135.6	1151.9
42.5°	1015.2	1027.1	1062.7	1086.5	1105.8
45°	954.2	967.6	1006.3	1036.0	1058.3
47.5°	893.3	911.1	948.3	988.4	1007.7
50°	832.3	850.2	891.8	936.4	955.7
52.5°	769.9	787.8	835.3	881.4	902.2
55°	710.5	728.3	778.8	829.4	850.2
57.5°	648.0	667.4	723.8	775.9	796.7
60°	587.1	606.4	667.4	722.4	744.7
62.5°	527.7	548.5	612.4	670.3	692.6
65°	466.7	490.5	557.4	618.3	642.1
67.5°	407.3	434.0	503.9	567.8	593.0
70°	347.8	379.0	453.3	518.7	544.0
72.5°	289.8	324.0	402.8	468.2	481.6
75°	233.4	273.5	355.2	386.4	383.5
77.5°	179.8	224.4	301.7	307.7	316.6
80°	130.8	179.8	225.9	237.8	231.9
82.5°	86.2	135.3	162.0	156.1	154.6
85°	49.0	84.7	90.7	83.2	83.2
87.5°	20.8	34.2	29.7	22.3	20.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)