

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: P230071

Luminaire Tested: **24CZ-LD5-30SE-S-UNV-L950-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P230071  
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-LD5-30SE-S-UNV-L950-CD1-U  
Description: CRUZE 2x4 LED TROFFER  
WITH SMOOTH LENS  
Light Source: (84) 5000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2993.0 lumens  
Efficiency: N/A  
Efficacy: 127.4 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

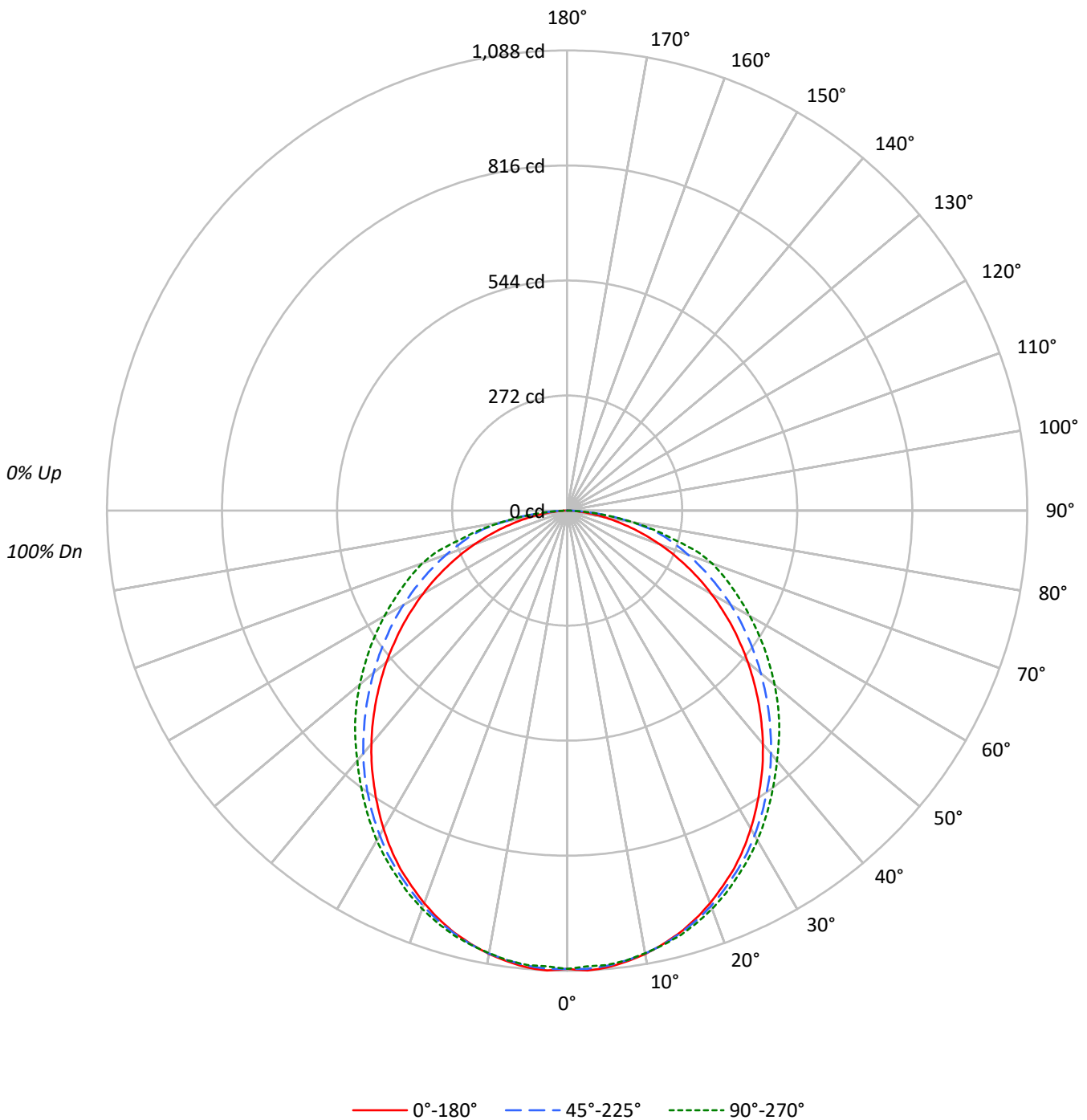
Input Watts (W): 23.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P230071

CATALOG NUMBER: 24CZ-LD5-30SE-S-UNV-L950-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P230071

CATALOG NUMBER: 24CZ-LD5-30SE-S-UNV-L950-CD1-U

**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°	1458	1458	1458
5°	1465	1459	1457
10°	1455	1453	1452
15°	1439	1441	1447
20°	1415	1425	1435
25°	1387	1402	1416
30°	1349	1377	1399
35°	1307	1348	1376
40°	1265	1317	1356
45°	1217	1283	1349
50°	1167	1251	1340
55°	1117	1224	1336
60°	1059	1203	1343
65°	996	1189	1370
70°	917	1195	1434
75°	813	1237	1336
80°	679	1173	1204
85°	508	937	861



TEST NUMBER: P230071

CATALOG NUMBER: 24CZ-LD5-30SE-S-UNV-L950-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	102.4	3.4
10°-20°	291.3	9.7
20°-30°	434.2	14.5
30°-40°	511.1	17.1
40°-50°	519.4	17.4
50°-60°	467.0	15.6
60°-70°	368.9	12.3
70°-80°	234.0	7.8
80°-90°	64.6	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°	828.0	27.7
0°-40°	1339.1	44.7
0°-60°	2325.5	77.7
0°-90°	2993.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2993.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1084	1084	1084	1084	1084	
5°	1084	1076	1080	1078	1078	103
15°	1033	1028	1035	1038	1039	291
25°	934	933	944	950	954	430
35°	796	801	821	830	838	498
45°	639	648	674	694	709	493
55°	476	488	522	556	570	425
65°	313	329	374	414	430	310
75°	156	183	238	259	257	166
85°	33	57	61	56	56	40
90°	0	0	0	0	0	



TEST NUMBER: P230071

CATALOG NUMBER: 24CZ-LD5-30SE-S-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1083.5	1083.5	1083.5	1083.5	1083.5
2.5°	1088.5	1080.5	1084.5	1082.5	1078.5
5°	1084.5	1075.6	1080.5	1078.5	1078.5
7.5°	1075.6	1068.6	1072.6	1071.6	1072.6
10°	1064.6	1057.6	1063.6	1063.6	1062.6
12.5°	1049.7	1043.7	1050.7	1050.7	1051.7
15°	1032.7	1027.8	1034.7	1037.7	1038.7
17.5°	1011.8	1006.8	1015.8	1018.8	1021.8
20°	987.9	985.9	994.9	997.9	1001.9
22.5°	961.0	961.0	970.0	974.0	979.9
25°	934.1	933.1	944.1	950.1	954.1
27.5°	902.3	903.3	917.2	923.2	928.2
30°	868.4	870.4	886.3	893.3	900.3
32.5°	832.6	836.5	854.5	862.4	869.4
35°	795.7	800.7	820.6	829.6	837.5
37.5°	758.9	765.8	786.7	795.7	804.7
40°	720.0	726.0	749.9	760.9	771.8
42.5°	680.2	688.2	712.1	728.0	740.9
45°	639.4	648.3	674.2	694.1	709.1
47.5°	598.5	610.5	635.4	662.3	675.2
50°	557.7	569.6	597.5	627.4	640.4
52.5°	515.9	527.8	559.7	590.6	604.5
55°	476.0	488.0	521.8	555.7	569.6
57.5°	434.2	447.2	485.0	519.9	533.8
60°	393.4	406.3	447.2	484.0	498.9
62.5°	353.5	367.5	410.3	449.1	464.1
65°	312.7	328.6	373.5	414.3	430.2
67.5°	272.9	290.8	337.6	380.4	397.4
70°	233.0	254.0	303.7	347.6	364.5
72.5°	194.2	217.1	269.9	313.7	322.7
75°	156.4	183.2	238.0	258.9	256.9
77.5°	120.5	150.4	202.2	206.1	212.1
80°	87.6	120.5	151.4	159.3	155.4
82.5°	57.8	90.6	108.6	104.6	103.6
85°	32.9	56.8	60.7	55.8	55.8
87.5°	13.9	22.9	19.9	14.9	13.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)