

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: P263210

Luminaire Tested: **24CZ-LD5-40SE-SQP-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P263210  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25695)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-40SE-SQP-UNV-L93050-W2A1-U-4500K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH SQP LENS  
Light Source: (168) 90 CRI LEDS TUNED AT 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2502.9 lumens  
Efficiency: N/A  
Efficacy: 79.0 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.31 / 1.42  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

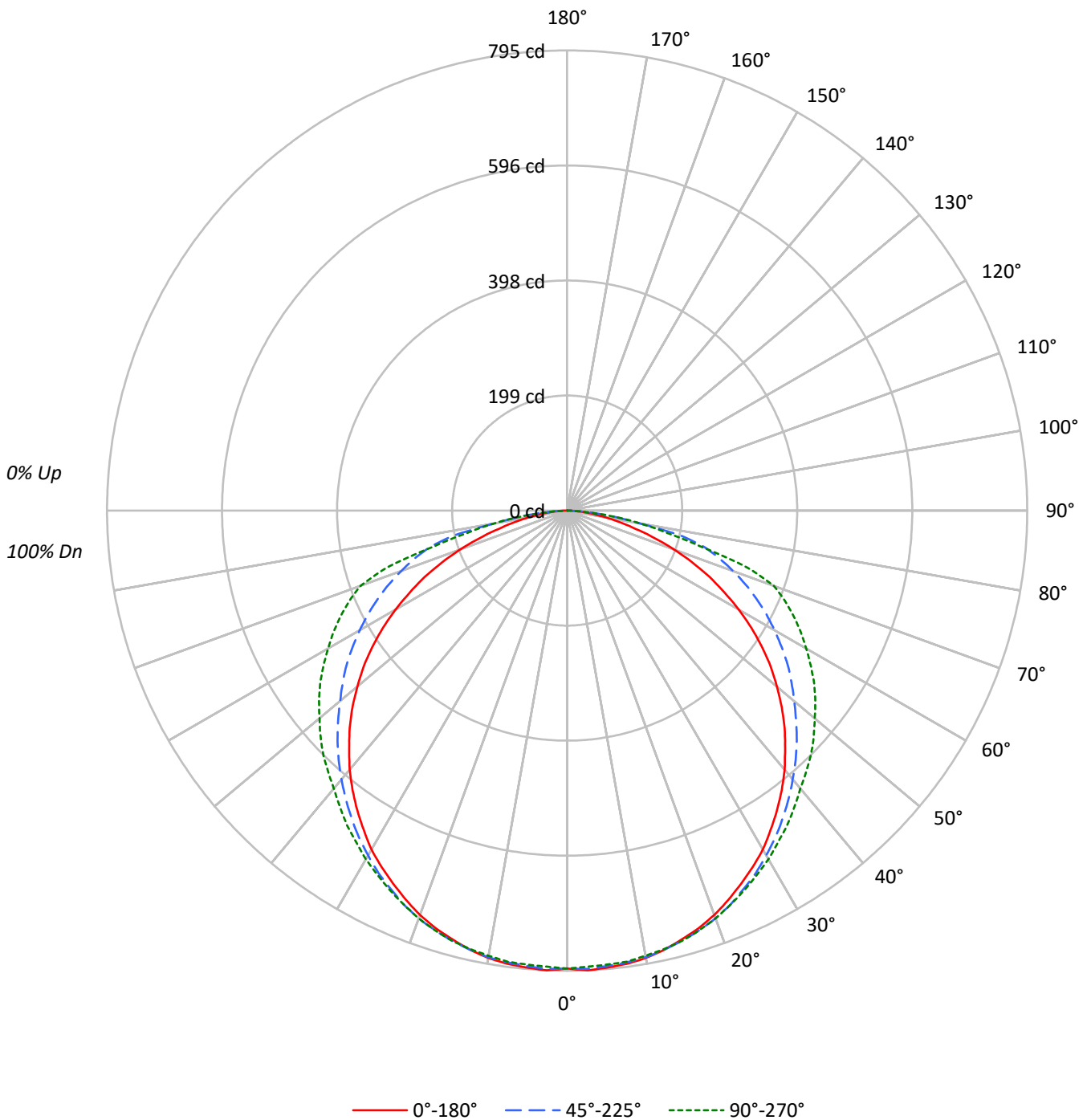
Input Watts (W): 31.688262  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P263210

CATALOG NUMBER: 24CZ-LD5-40SE-SQP-UNV-L93050-W2A1-U-4500K

### Luminous Intensity Polar Plot





TEST NUMBER: P263210

CATALOG NUMBER: 24CZ-LD5-40SE-SQP-UNV-L93050-W2A1-U-4500K

**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	98	94	105	101	97	93	96	93	90		92	90	87		89	87	84	82
2	98	89	82	76	95	87	80	75	83	78	73		80	75	71		77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	60		70	64	59		67	63	58	56
4	81	68	59	52	79	67	58	52	64	57	51		62	56	50		60	54	50	47
5	74	61	51	45	72	60	51	44	57	50	44		55	49	43		54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38		50	43	38		48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34		45	39	33		44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30		42	35	30		40	34	29	28
9	55	41	33	27	54	41	33	27	39	32	27		38	32	27		37	31	27	25
10	51	38	30	24	50	37	30	24	36	29	24		35	29	24		35	28	24	22

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

	0°	45°	90°
0°	1065	1065	1065
5°	1070	1067	1063
10°	1072	1070	1067
15°	1068	1071	1071
20°	1064	1074	1074
25°	1056	1071	1075
30°	1051	1069	1081
35°	1038	1066	1089
40°	1026	1065	1101
45°	1011	1068	1134
50°	991	1072	1169
55°	964	1092	1222
60°	922	1113	1284
65°	864	1148	1375
70°	773	1200	1495
75°	638	1284	1237
80°	521	992	1002
85°	418	659	619



TEST NUMBER: P263210

CATALOG NUMBER: 24CZ-LD5-40SE-SQP-UNV-L93050-W2A1-U-4500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.1	3.0
10°-20°	216.8	8.7
20°-30°	331.4	13.2
30°-40°	405.3	16.2
40°-50°	433.7	17.3
50°-60°	415.3	16.6
60°-70°	351.3	14.0
70°-80°	222.7	8.9
80°-90°	51.2	2.0
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°	623.4	24.9
0°-40°	1028.7	41.1
0°-60°	1877.7	75.0
0°-90°	2502.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2502.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	791	791	791	791	791	
5°	792	789	790	789	787	75
15°	767	765	769	769	769	217
25°	711	711	721	724	724	328
35°	632	636	649	658	663	396
45°	531	540	561	584	596	409
55°	411	424	465	504	521	367
65°	272	297	361	410	432	267
75°	123	173	247	246	238	134
85°	27	41	43	39	40	32
90°	0	0	0	0	0	



TEST NUMBER: P263210

CATALOG NUMBER: 24CZ-LD5-40SE-SQP-UNV-L93050-W2A1-U-4500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	791.2	791.2	791.2	791.2	791.2
2.5°	795.1	791.2	792.5	791.2	788.6
5°	792.5	788.6	789.9	788.6	787.3
7.5°	789.9	786.0	787.3	786.0	786.0
10°	784.8	780.9	783.5	782.2	780.9
12.5°	777.0	774.4	777.0	775.7	775.7
15°	766.7	765.4	769.2	769.2	769.2
17.5°	756.3	755.0	760.2	760.2	760.2
20°	743.4	742.1	749.8	749.8	749.8
22.5°	727.9	726.6	736.9	736.9	736.9
25°	711.1	711.1	721.4	724.0	724.0
27.5°	694.3	694.3	705.9	709.8	709.8
30°	676.2	676.2	687.8	693.0	695.5
32.5°	654.2	656.8	669.7	676.2	678.7
35°	632.2	636.1	649.0	658.1	663.2
37.5°	608.9	612.8	628.3	638.7	645.1
40°	584.4	589.5	606.3	619.3	627.0
42.5°	557.2	565.0	584.4	601.2	611.5
45°	531.4	540.4	561.1	584.4	596.0
47.5°	502.9	513.3	536.5	566.3	577.9
50°	473.2	483.5	512.0	545.6	558.5
52.5°	443.4	455.1	488.7	524.9	540.4
55°	411.1	424.1	465.4	504.2	521.0
57.5°	377.5	393.0	439.6	480.9	499.0
60°	342.6	362.0	413.7	457.7	477.1
62.5°	306.4	329.7	387.9	434.4	455.1
65°	271.5	297.4	360.7	409.8	431.8
67.5°	234.0	266.3	333.6	386.6	407.2
70°	196.5	234.0	305.1	359.4	380.1
72.5°	159.0	204.3	276.7	325.8	325.8
75°	122.8	173.2	246.9	245.6	237.9
77.5°	93.1	144.8	203.0	173.2	174.5
80°	67.2	116.4	128.0	128.0	129.3
82.5°	45.2	89.2	82.7	81.4	84.0
85°	27.1	41.4	42.7	38.8	40.1
87.5°	12.9	14.2	11.6	7.8	7.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)