

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: P230070

Luminaire Tested: **24CZ-LD5-30SE-S-UNV-L940-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P230070  
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-L940-CD1-U  
Description: CRUZE 2x4 LED TROFFER  
WITH SMOOTH LENS  
Light Source: (84) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2751.0 lumens  
Efficiency: N/A  
Efficacy: 117.1 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

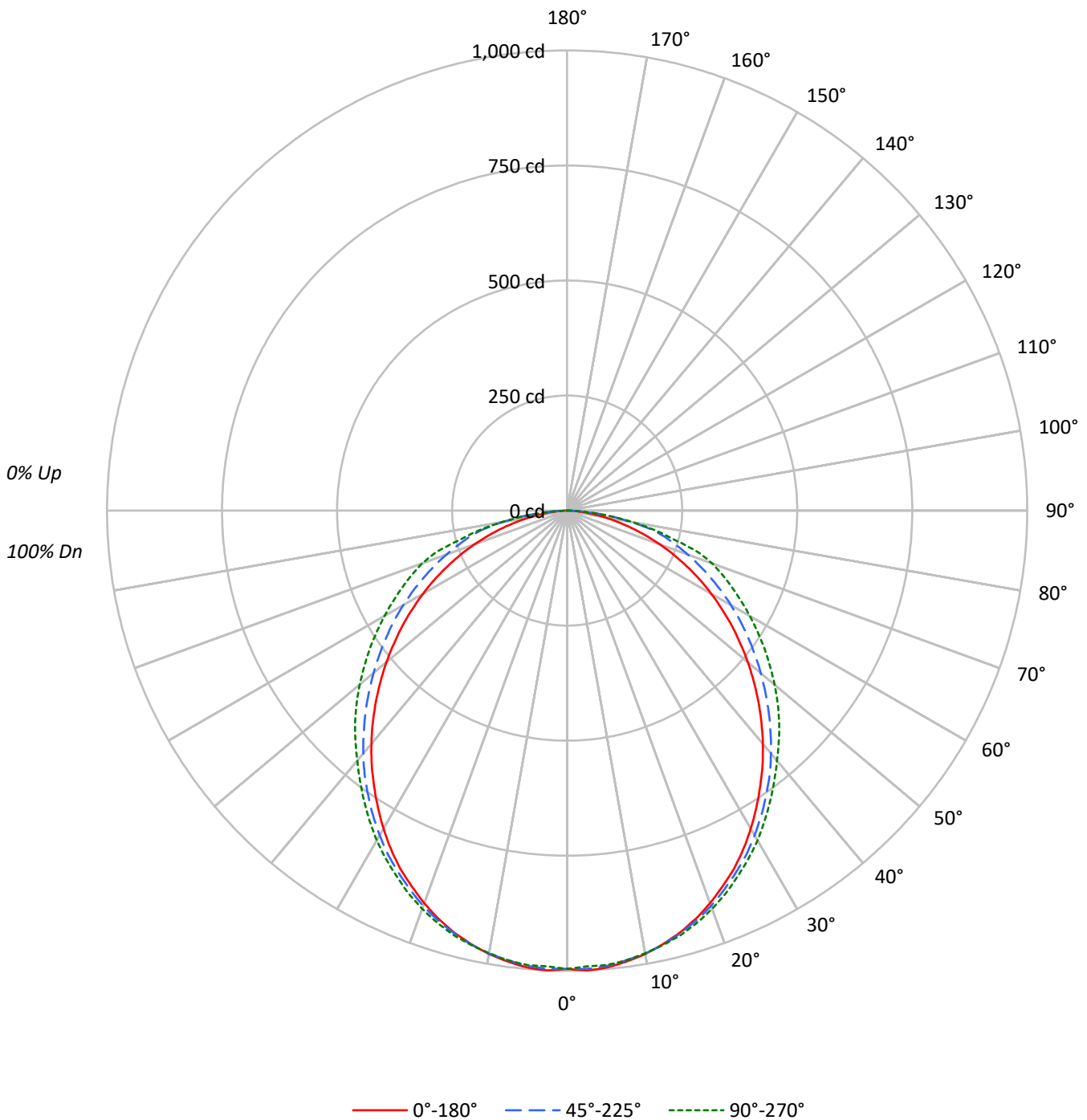
Input Watts (W): 23.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1340	1340	1340
5°	1346	1341	1339
10°	1337	1336	1334
15°	1322	1325	1330
20°	1300	1309	1319
25°	1275	1288	1302
30°	1240	1266	1286
35°	1201	1239	1264
40°	1162	1211	1246
45°	1118	1179	1240
50°	1073	1150	1232
55°	1026	1125	1228
60°	973	1106	1234
65°	915	1093	1259
70°	843	1098	1318
75°	747	1137	1228
80°	625	1078	1106
85°	466	861	792



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	94.2	3.4
10°-20°	267.8	9.7
20°-30°	399.1	14.5
30°-40°	469.8	17.1
40°-50°	477.4	17.4
50°-60°	429.2	15.6
60°-70°	339.1	12.3
70°-80°	215.1	7.8
80°-90°	59.4	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°	761.0	27.7
0°-40°	1230.8	44.7
0°-60°	2137.4	77.7
0°-90°	2751.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2751.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	996	996	996	996	996	
5°	997	989	993	991	991	95
15°	949	945	951	954	955	267
25°	859	858	868	873	877	395
35°	731	736	754	762	770	458
45°	588	596	620	638	652	453
55°	438	448	480	511	524	391
65°	287	302	343	381	395	285
75°	144	168	219	238	236	153
85°	30	52	56	51	51	37
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	995.9	995.9	995.9	995.9	995.9
2.5°	1000.5	993.2	996.8	995.0	991.3
5°	996.8	988.6	993.2	991.3	991.3
7.5°	988.6	982.2	985.8	984.9	985.8
10°	978.5	972.1	977.6	977.6	976.7
12.5°	964.8	959.3	965.7	965.7	966.6
15°	949.2	944.7	951.1	953.8	954.7
17.5°	930.0	925.4	933.7	936.4	939.2
20°	908.0	906.2	914.4	917.2	920.9
22.5°	883.3	883.3	891.6	895.2	900.7
25°	858.6	857.7	867.8	873.3	876.9
27.5°	829.3	830.2	843.0	848.5	853.1
30°	798.2	800.0	814.7	821.1	827.5
32.5°	765.2	768.9	785.4	792.7	799.1
35°	731.4	736.0	754.3	762.5	769.8
37.5°	697.5	703.9	723.1	731.4	739.6
40°	661.8	667.3	689.3	699.3	709.4
42.5°	625.2	632.5	654.5	669.1	681.0
45°	587.7	595.9	619.7	638.0	651.7
47.5°	550.1	561.1	584.0	608.7	620.6
50°	512.6	523.6	549.2	576.7	588.6
52.5°	474.2	485.1	514.4	542.8	555.6
55°	437.5	448.5	479.6	510.8	523.6
57.5°	399.1	411.0	445.8	477.8	490.6
60°	361.6	373.5	411.0	444.9	458.6
62.5°	325.0	337.8	377.1	412.8	426.6
65°	287.4	302.1	343.3	380.8	395.4
67.5°	250.8	267.3	310.3	349.7	365.2
70°	214.2	233.4	279.2	319.5	335.0
72.5°	178.5	199.5	248.1	288.3	296.6
75°	143.7	168.4	218.8	238.0	236.2
77.5°	110.8	138.2	185.8	189.5	195.0
80°	80.6	110.8	139.1	146.5	142.8
82.5°	53.1	83.3	99.8	96.1	95.2
85°	30.2	52.2	55.8	51.3	51.3
87.5°	12.8	21.1	18.3	13.7	12.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)