

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: P261100

Luminaire Tested: **24CZ-LD5-30SE-S-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P261100  
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-L93050-W2A1-U-4500K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER  
WITH SMOOTH LENS  
Light Source: (168) 90 CRI LEDS TUNED AT 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2889.5 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

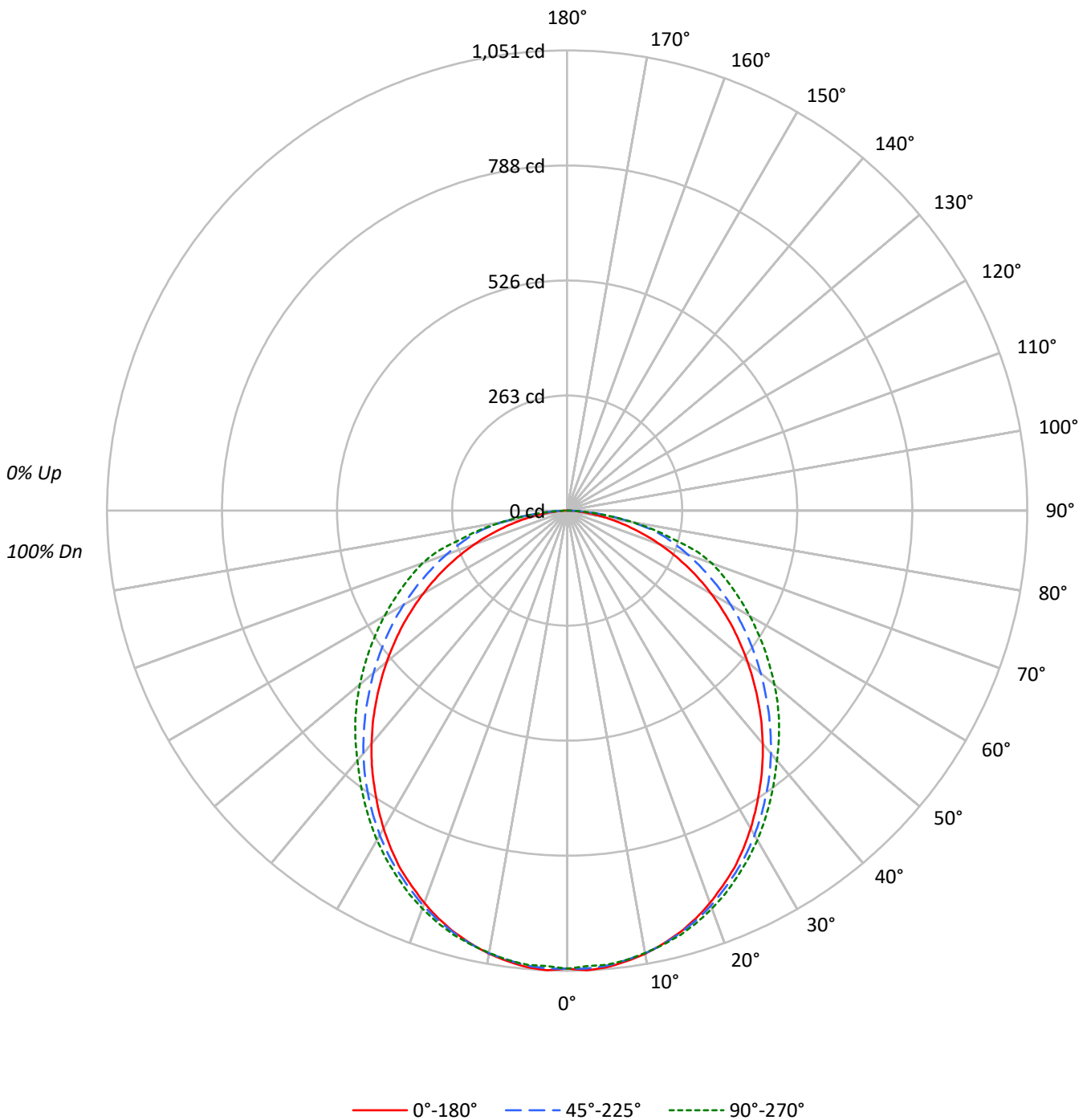
Input Watts (W): 22.676004  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1407	1407	1407
5°	1414	1409	1406
10°	1404	1403	1402
15°	1389	1391	1397
20°	1366	1375	1385
25°	1339	1353	1367
30°	1303	1329	1350
35°	1262	1301	1328
40°	1221	1272	1309
45°	1174	1239	1302
50°	1127	1208	1294
55°	1078	1182	1290
60°	1022	1162	1296
65°	961	1148	1322
70°	885	1153	1384
75°	784	1195	1290
80°	656	1132	1162
85°	489	905	831



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	98.9	3.4
10°-20°	281.3	9.7
20°-30°	419.2	14.5
30°-40°	493.4	17.1
40°-50°	501.4	17.4
50°-60°	450.8	15.6
60°-70°	356.2	12.3
70°-80°	225.9	7.8
80°-90°	62.4	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
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0°-30°	799.3	27.7
0°-40°	1292.8	44.7
0°-60°	2245.0	77.7
0°-90°	2889.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2889.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1046	1046	1046	1046	1046	
5°	1047	1038	1043	1041	1041	99
15°	997	992	999	1002	1003	281
25°	902	901	911	917	921	415
35°	768	773	792	801	809	481
45°	617	626	651	670	684	476
55°	460	471	504	536	550	410
65°	302	317	360	400	415	299
75°	151	177	230	250	248	161
85°	32	55	59	54	54	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1046.0	1046.0	1046.0	1046.0	1046.0
2.5°	1050.9	1043.2	1047.0	1045.1	1041.2
5°	1047.0	1038.4	1043.2	1041.2	1041.2
7.5°	1038.4	1031.6	1035.5	1034.5	1035.5
10°	1027.8	1021.0	1026.8	1026.8	1025.9
12.5°	1013.4	1007.6	1014.3	1014.3	1015.3
15°	997.0	992.2	998.9	1001.8	1002.8
17.5°	976.8	972.0	980.7	983.6	986.4
20°	953.7	951.8	960.5	963.4	967.2
22.5°	927.8	927.8	936.4	940.3	946.1
25°	901.8	900.9	911.4	917.2	921.1
27.5°	871.1	872.0	885.5	891.3	896.1
30°	838.4	840.3	855.7	862.4	869.1
32.5°	803.8	807.6	824.9	832.6	839.3
35°	768.2	773.0	792.2	800.9	808.6
37.5°	732.6	739.3	759.5	768.2	776.8
40°	695.1	700.9	724.0	734.5	745.1
42.5°	656.7	664.4	687.4	702.8	715.3
45°	617.2	625.9	650.9	670.1	684.5
47.5°	577.8	589.4	613.4	639.4	651.9
50°	538.4	549.9	576.9	605.7	618.2
52.5°	498.0	509.6	540.3	570.1	583.6
55°	459.6	471.1	503.8	536.5	549.9
57.5°	419.2	431.7	468.2	501.9	515.3
60°	379.8	392.3	431.7	467.3	481.7
62.5°	341.3	354.8	396.1	433.6	448.0
65°	301.9	317.3	360.5	400.0	415.3
67.5°	263.4	280.7	325.9	367.3	383.6
70°	225.0	245.2	293.2	335.5	351.9
72.5°	187.5	209.6	260.5	302.9	311.5
75°	150.9	176.9	229.8	250.0	248.1
77.5°	116.3	145.2	195.2	199.0	204.8
80°	84.6	116.3	146.1	153.8	150.0
82.5°	55.8	87.5	104.8	101.0	100.0
85°	31.7	54.8	58.6	53.8	53.8
87.5°	13.5	22.1	19.2	14.4	13.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)