

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: P276827

Luminaire Tested: **24CZ2-50HE-RDP-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276827  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-50HE-RDP-UNV-L93050-W2A1-U-3000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH RDP LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2487.9 lumens  
Efficiency: N/A  
Efficacy: 68.1 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

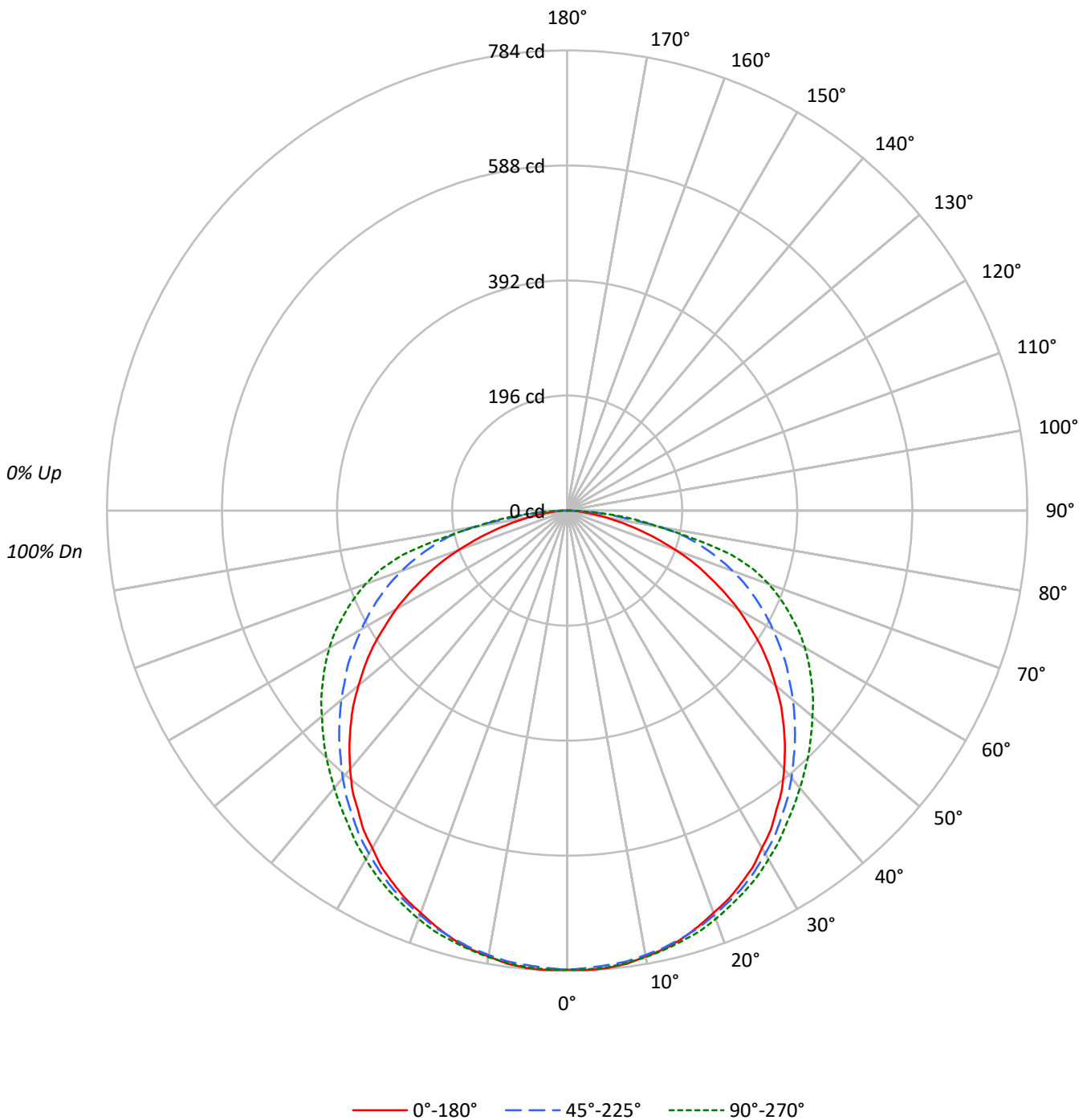
Input Watts (W): 36.533376  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

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

	0°	45°	90°
0°	1053	1053	1053
5°	1057	1050	1055
10°	1054	1050	1055
15°	1052	1050	1057
20°	1044	1050	1060
25°	1041	1052	1063
30°	1031	1049	1066
35°	1021	1046	1070
40°	1010	1045	1084
45°	993	1045	1108
50°	971	1051	1142
55°	947	1068	1193
60°	907	1089	1259
65°	848	1128	1336
70°	772	1180	1437
75°	655	1245	1501
80°	516	1253	1214
85°	381	953	1067



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	74.2	3.0
10°-20°	213.6	8.6
20°-30°	326.6	13.1
30°-40°	399.3	16.0
40°-50°	425.5	17.1
50°-60°	406.9	16.4
60°-70°	344.7	13.9
70°-80°	231.7	9.3
80°-90°	65.3	2.6
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°	614.4	24.7
0°-40°	1013.7	40.7
0°-60°	1846.2	74.2
0°-90°	2487.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2487.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	782	782	782	782	782	
5°	782	781	777	781	781	74
15°	755	755	754	760	759	213
25°	701	703	708	714	716	323
35°	622	627	637	649	652	390
45°	522	531	549	573	582	403
55°	404	418	455	491	508	359
65°	266	294	354	401	420	265
75°	126	172	239	280	289	135
85°	25	51	62	67	69	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	782.4	782.4	782.4	782.4	782.4
2.5°	783.6	783.6	779.9	782.4	782.4
5°	782.4	781.1	777.4	781.1	781.1
7.5°	778.7	777.4	775.0	778.7	777.4
10°	771.3	771.3	768.8	772.5	772.5
12.5°	765.1	763.9	762.6	767.6	766.3
15°	755.2	755.2	754.0	760.1	758.9
17.5°	742.9	744.1	745.3	750.3	751.5
20°	729.3	731.8	733.0	740.4	740.4
22.5°	717.0	718.2	720.7	728.1	728.1
25°	700.9	703.4	708.3	714.5	715.7
27.5°	684.9	686.1	692.3	700.9	702.2
30°	663.9	667.6	675.0	684.9	686.1
32.5°	645.4	649.1	657.7	667.6	670.1
35°	621.9	626.9	636.7	649.1	651.6
37.5°	601.0	604.7	617.0	630.6	634.3
40°	575.0	582.5	594.8	610.8	617.0
42.5°	549.1	556.5	571.3	592.3	599.7
45°	522.0	530.6	549.1	572.6	582.5
47.5°	494.8	504.7	525.7	552.8	563.9
50°	464.0	476.3	502.2	533.1	545.4
52.5°	434.4	449.2	477.6	512.1	528.2
55°	403.5	418.3	455.3	491.1	508.4
57.5°	369.0	388.7	429.4	470.2	488.7
60°	336.9	355.4	404.8	449.2	467.7
62.5°	302.3	327.0	380.1	427.0	445.5
65°	266.5	293.7	354.2	401.1	419.6
67.5°	234.5	264.1	328.2	375.1	393.6
70°	196.2	233.2	299.9	346.8	365.3
72.5°	160.4	201.1	270.2	315.9	333.2
75°	125.9	171.5	239.4	280.1	288.8
77.5°	93.8	141.9	207.3	224.6	218.4
80°	66.6	113.5	161.7	153.0	156.7
82.5°	43.2	86.4	100.0	113.5	117.2
85°	24.7	50.6	61.7	66.6	69.1
87.5°	11.1	18.5	24.7	24.7	23.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)