

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: P276828

Luminaire Tested: **24CZ2-50HE-RDP-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276828  
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-3500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH RDP LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2718.1 lumens  
Efficiency: N/A  
Efficacy: 74.7 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

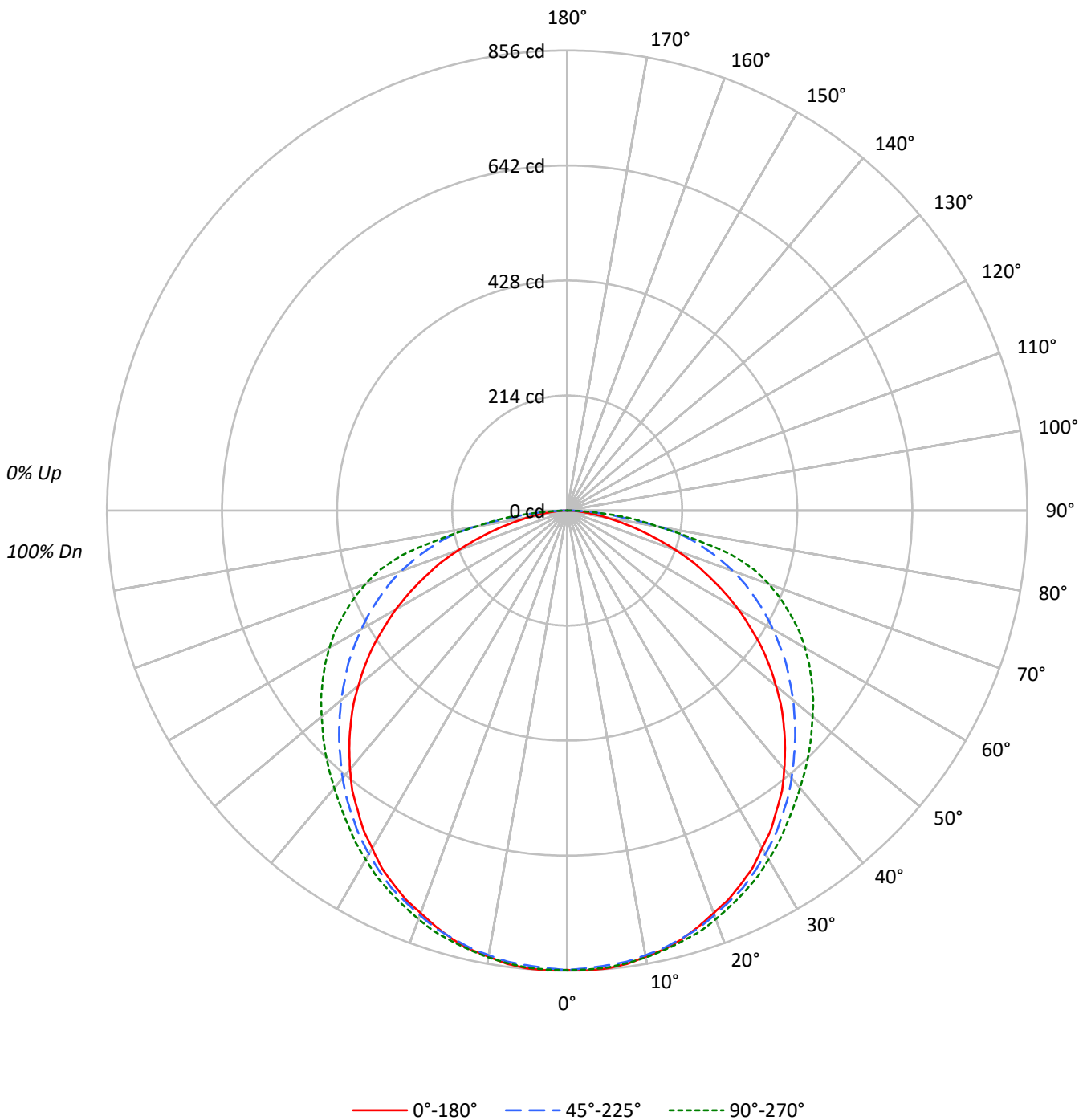
Input Watts (W): 36.390528  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1150	1150	1150
5°	1155	1147	1153
10°	1151	1148	1153
15°	1149	1148	1155
20°	1141	1147	1158
25°	1137	1149	1161
30°	1127	1146	1165
35°	1116	1143	1169
40°	1104	1141	1184
45°	1085	1142	1211
50°	1061	1149	1247
55°	1034	1167	1303
60°	991	1190	1375
65°	927	1232	1459
70°	843	1289	1570
75°	715	1360	1640
80°	564	1368	1327
85°	417	1041	1166



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	81.1	3.0
10°-20°	233.4	8.6
20°-30°	356.9	13.1
30°-40°	436.2	16.0
40°-50°	464.9	17.1
50°-60°	444.5	16.4
60°-70°	376.6	13.9
70°-80°	253.1	9.3
80°-90°	71.4	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
0°-30°	671.3	24.7
0°-40°	1107.5	40.7
0°-60°	2017.0	74.2
0°-90°	2718.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2718.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	855	855	855	855	855	
5°	855	853	849	853	853	81
15°	825	825	824	830	829	233
25°	766	768	774	781	782	353
35°	680	685	696	709	712	426
45°	570	580	600	626	636	440
55°	441	457	498	537	556	393
65°	291	321	387	438	458	289
75°	138	187	262	306	316	147
85°	27	55	67	73	76	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	854.8	854.8	854.8	854.8	854.8
2.5°	856.1	856.1	852.1	854.8	854.8
5°	854.8	853.4	849.4	853.4	853.4
7.5°	850.7	849.4	846.7	850.7	849.4
10°	842.6	842.6	839.9	844.0	844.0
12.5°	835.9	834.5	833.2	838.6	837.2
15°	825.1	825.1	823.8	830.5	829.1
17.5°	811.6	813.0	814.3	819.7	821.1
20°	796.8	799.5	800.8	808.9	808.9
22.5°	783.3	784.7	787.4	795.4	795.4
25°	765.8	768.5	773.9	780.6	782.0
27.5°	748.3	749.6	756.3	765.8	767.1
30°	725.3	729.4	737.5	748.3	749.6
32.5°	705.1	709.2	718.6	729.4	732.1
35°	679.5	684.9	695.7	709.2	711.9
37.5°	656.6	660.6	674.1	688.9	693.0
40°	628.3	636.4	649.8	667.4	674.1
42.5°	600.0	608.0	624.2	647.1	655.2
45°	570.3	579.7	600.0	625.6	636.4
47.5°	540.6	551.4	574.3	604.0	616.1
50°	506.9	520.4	548.7	582.4	595.9
52.5°	474.6	490.7	521.8	559.5	577.0
55°	440.9	457.0	497.5	536.6	555.5
57.5°	403.1	424.7	469.2	513.7	533.9
60°	368.1	388.3	442.2	490.7	511.0
62.5°	330.3	357.3	415.2	466.5	486.7
65°	291.2	320.9	386.9	438.2	458.4
67.5°	256.2	288.5	358.6	409.9	430.1
70°	214.4	254.8	327.6	378.8	399.1
72.5°	175.3	219.8	295.3	345.1	364.0
75°	137.5	187.4	261.6	306.0	315.5
77.5°	102.5	155.0	226.5	245.4	238.6
80°	72.8	124.0	176.6	167.2	171.2
82.5°	47.2	94.4	109.2	124.0	128.1
85°	27.0	55.3	67.4	72.8	75.5
87.5°	12.1	20.2	27.0	27.0	25.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)