

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: P277072

Luminaire Tested: **24CZ2-60HE-RDP-UNV-L92765-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277072  
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: 24CZ2-60HE-RDP-UNV-L92765-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: 3127.1 lumens  
Efficiency: N/A  
Efficacy: 71.2 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

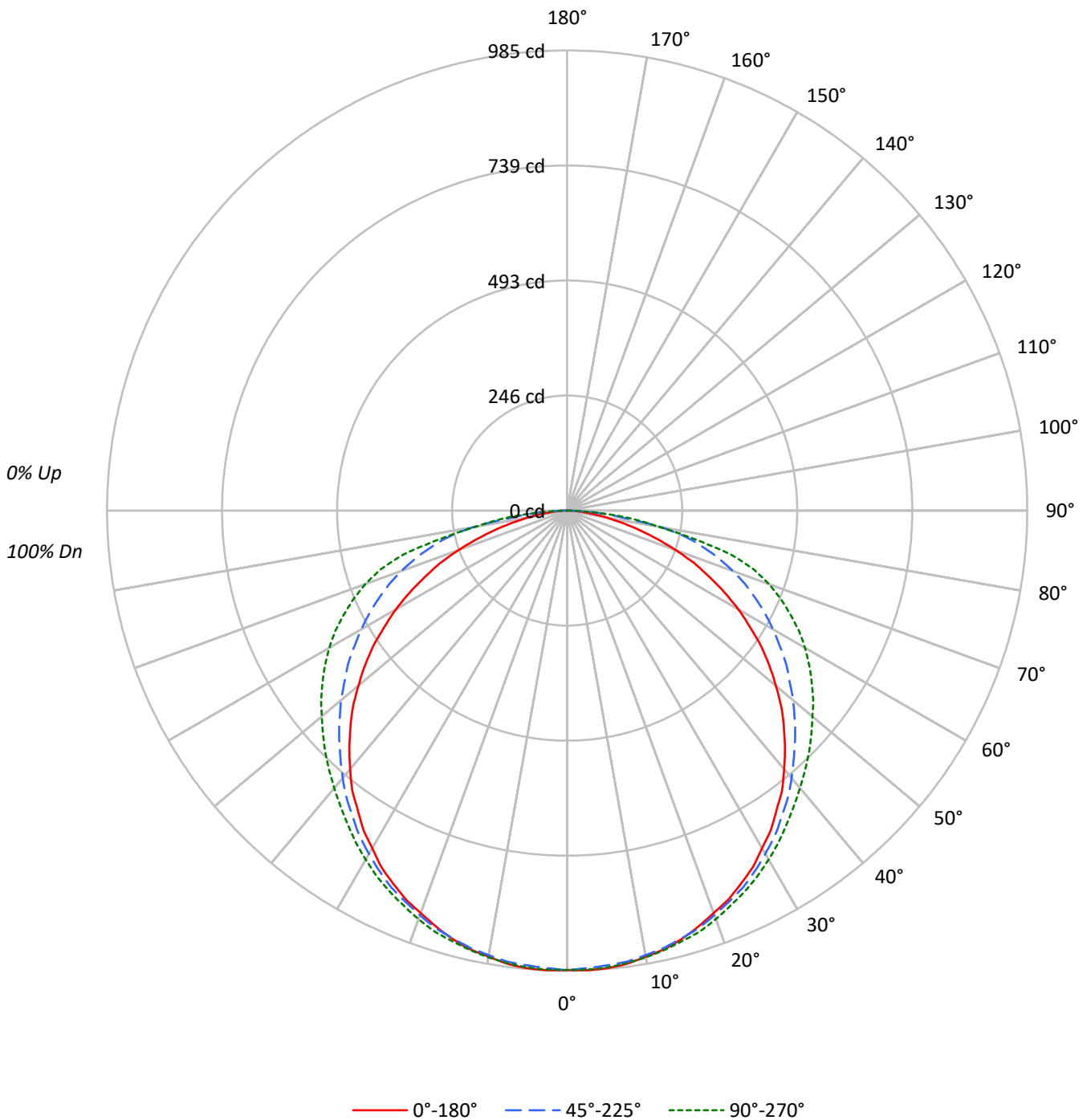
Input Watts (W): 43.896  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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					100			
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82					82			
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67					67			
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56					56			
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47					47			
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40					40			
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35					35			
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31					31			
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27					27			
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24					24			
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22					22			

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

	0°	45°	90°
0°	1323	1323	1323
5°	1328	1320	1326
10°	1324	1320	1327
15°	1322	1320	1329
20°	1313	1319	1333
25°	1308	1322	1336
30°	1297	1318	1340
35°	1284	1315	1345
40°	1270	1313	1362
45°	1248	1313	1393
50°	1221	1321	1435
55°	1190	1343	1499
60°	1140	1369	1582
65°	1067	1417	1679
70°	970	1483	1806
75°	822	1564	1887
80°	649	1574	1526
85°	479	1198	1342



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	93.3	3.0
10°-20°	268.5	8.6
20°-30°	410.5	13.1
30°-40°	501.9	16.0
40°-50°	534.9	17.1
50°-60°	511.5	16.4
60°-70°	433.3	13.9
70°-80°	291.2	9.3
80°-90°	82.1	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°	772.3	24.7
0°-40°	1274.2	40.7
0°-60°	2320.6	74.2
0°-90°	3127.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3127.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	983	983	983	983	983	
5°	983	982	977	982	982	93
15°	949	949	948	956	954	268
25°	881	884	890	898	900	406
35°	782	788	800	816	819	490
45°	656	667	690	720	732	506
55°	507	526	572	617	639	452
65°	335	369	445	504	527	333
75°	158	216	301	352	363	169
85°	31	64	78	84	87	38
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	983.4	983.4	983.4	983.4	983.4
2.5°	984.9	984.9	980.3	983.4	983.4
5°	983.4	981.8	977.2	981.8	981.8
7.5°	978.7	977.2	974.1	978.7	977.2
10°	969.4	969.4	966.3	971.0	971.0
12.5°	961.7	960.1	958.6	964.8	963.2
15°	949.3	949.3	947.7	955.5	953.9
17.5°	933.8	935.3	936.9	943.1	944.6
20°	916.7	919.8	921.4	930.7	930.7
22.5°	901.2	902.7	905.8	915.1	915.1
25°	881.0	884.1	890.3	898.1	899.6
27.5°	860.9	862.4	870.2	881.0	882.6
30°	834.5	839.1	848.5	860.9	862.4
32.5°	811.2	815.9	826.7	839.1	842.2
35°	781.8	788.0	800.4	815.9	819.0
37.5°	755.4	760.0	775.5	792.6	797.3
40°	722.8	732.1	747.6	767.8	775.5
42.5°	690.2	699.5	718.2	744.5	753.8
45°	656.1	667.0	690.2	719.7	732.1
47.5°	622.0	634.4	660.8	694.9	708.9
50°	583.2	598.7	631.3	670.1	685.6
52.5°	546.0	564.6	600.3	643.7	663.9
55°	507.2	525.8	572.4	617.3	639.1
57.5°	463.8	488.6	539.8	591.0	614.2
60°	423.5	446.7	508.8	564.6	587.9
62.5°	380.0	411.0	477.7	536.7	559.9
65°	335.0	369.2	445.2	504.1	527.4
67.5°	294.7	331.9	412.6	471.5	494.8
70°	246.6	293.2	376.9	435.9	459.1
72.5°	201.6	252.8	339.7	397.1	418.8
75°	158.2	215.6	300.9	352.1	363.0
77.5°	117.9	178.4	260.6	282.3	274.5
80°	83.8	142.7	203.2	192.3	197.0
82.5°	54.3	108.6	125.6	142.7	147.4
85°	31.0	63.6	77.6	83.8	86.9
87.5°	14.0	23.3	31.0	31.0	29.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)