

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: P276847

Luminaire Tested: **24CZ2-70HE-RDP-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276847  
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: 24CZ2-70HE-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: 3490.3 lumens  
Efficiency: N/A  
Efficacy: 63.6 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

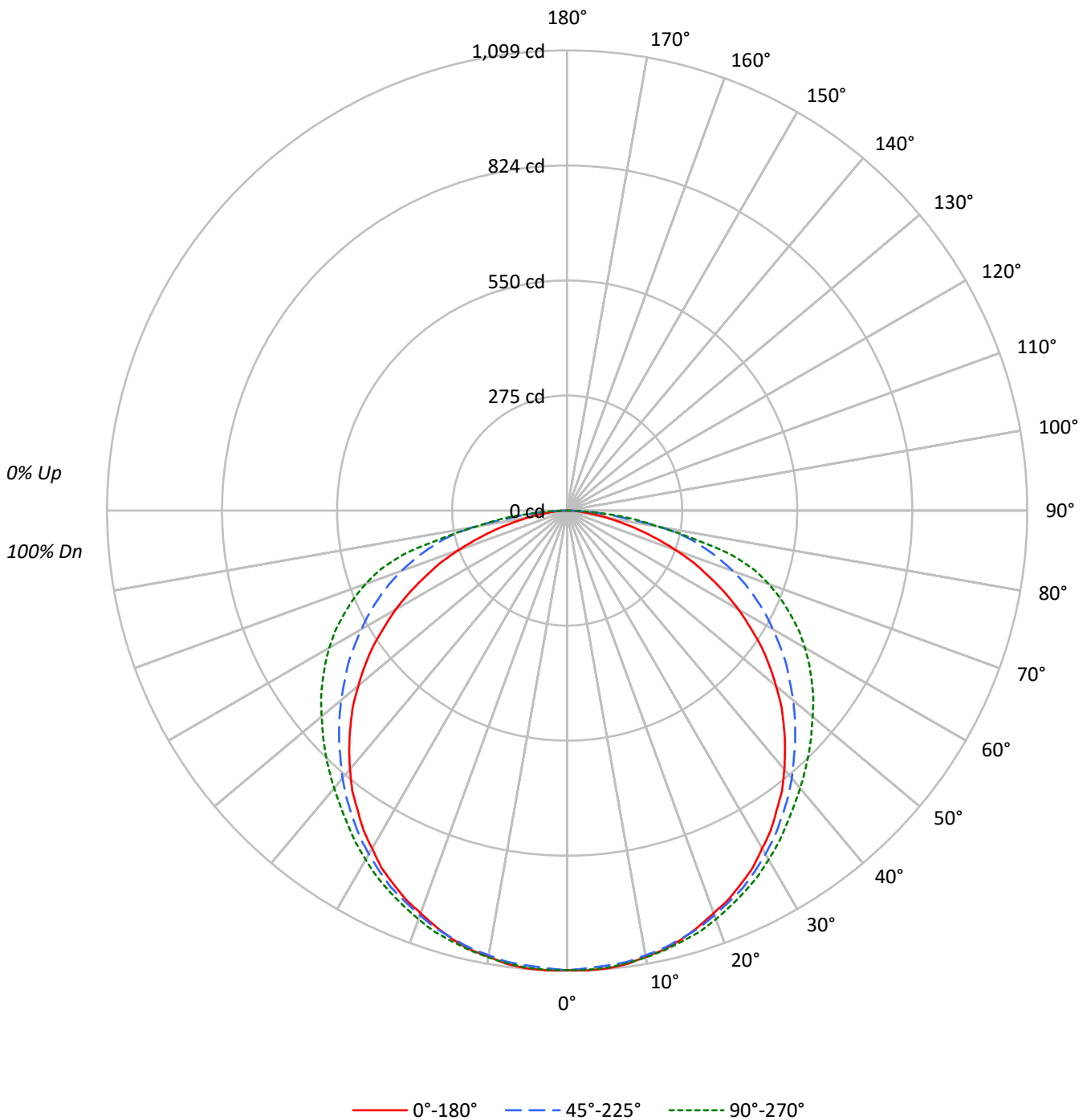
Input Watts (W): 54.895203  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1477	1477	1477
5°	1482	1473	1480
10°	1478	1473	1481
15°	1476	1473	1483
20°	1465	1472	1487
25°	1460	1475	1491
30°	1447	1471	1495
35°	1433	1467	1501
40°	1417	1466	1520
45°	1393	1466	1555
50°	1362	1475	1602
55°	1328	1498	1673
60°	1272	1528	1766
65°	1190	1582	1874
70°	1083	1655	2016
75°	918	1746	2106
80°	724	1757	1704
85°	534	1337	1496



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	104.1	3.0
10°-20°	299.6	8.6
20°-30°	458.2	13.1
30°-40°	560.2	16.0
40°-50°	597.0	17.1
50°-60°	570.8	16.4
60°-70°	483.6	13.9
70°-80°	325.0	9.3
80°-90°	91.7	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°	862.0	24.7
0°-40°	1422.1	40.7
0°-60°	2590.0	74.2
0°-90°	3490.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3490.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1098	1098	1098	1098	1098	
5°	1098	1096	1091	1096	1096	104
15°	1060	1060	1058	1066	1065	299
25°	983	987	994	1002	1004	453
35°	872	879	893	911	914	547
45°	732	744	770	803	817	565
55°	566	587	639	689	713	504
65°	374	412	497	563	589	371
75°	177	241	336	393	405	189
85°	35	71	87	94	97	43
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1097.6	1097.6	1097.6	1097.6	1097.6
2.5°	1099.3	1099.3	1094.1	1097.6	1097.6
5°	1097.6	1095.8	1090.7	1095.8	1095.8
7.5°	1092.4	1090.7	1087.2	1092.4	1090.7
10°	1082.0	1082.0	1078.5	1083.7	1083.7
12.5°	1073.3	1071.6	1069.9	1076.8	1075.1
15°	1059.5	1059.5	1057.8	1066.4	1064.7
17.5°	1042.2	1043.9	1045.6	1052.6	1054.3
20°	1023.1	1026.6	1028.3	1038.7	1038.7
22.5°	1005.8	1007.6	1011.0	1021.4	1021.4
25°	983.3	986.8	993.7	1002.4	1004.1
27.5°	960.8	962.5	971.2	983.3	985.1
30°	931.4	936.6	947.0	960.8	962.5
32.5°	905.4	910.6	922.7	936.6	940.0
35°	872.5	879.4	893.3	910.6	914.1
37.5°	843.1	848.3	865.6	884.6	889.8
40°	806.7	817.1	834.4	856.9	865.6
42.5°	770.4	780.8	801.5	831.0	841.4
45°	732.3	744.4	770.4	803.3	817.1
47.5°	694.2	708.1	737.5	775.6	791.2
50°	650.9	668.2	704.6	747.9	765.2
52.5°	609.4	630.2	670.0	718.4	741.0
55°	566.1	586.9	638.8	689.0	713.3
57.5°	517.6	545.3	602.5	659.6	685.6
60°	472.6	498.6	567.8	630.2	656.1
62.5°	424.1	458.8	533.2	599.0	625.0
65°	373.9	412.0	496.9	562.6	588.6
67.5°	328.9	370.5	460.5	526.3	552.3
70°	275.3	327.2	420.7	486.5	512.4
72.5°	225.1	282.2	379.1	443.2	467.4
75°	176.6	240.6	335.9	393.0	405.1
77.5°	131.6	199.1	290.8	315.1	306.4
80°	93.5	159.3	226.8	214.7	219.9
82.5°	60.6	121.2	140.2	159.3	164.5
85°	34.6	71.0	86.6	93.5	96.9
87.5°	15.6	26.0	34.6	34.6	32.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)