

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: P276603

Luminaire Tested: **24CZ2-30HE-S-UNV-L92765-W2A1-U-5500K**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P276603
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-30HE-S-UNV-L92765-W2A1-U-5500K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (336) 90 CRI LEDS TUNED TO 5500K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2864.7 lumens
Efficiency: N/A
Efficacy: 141.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

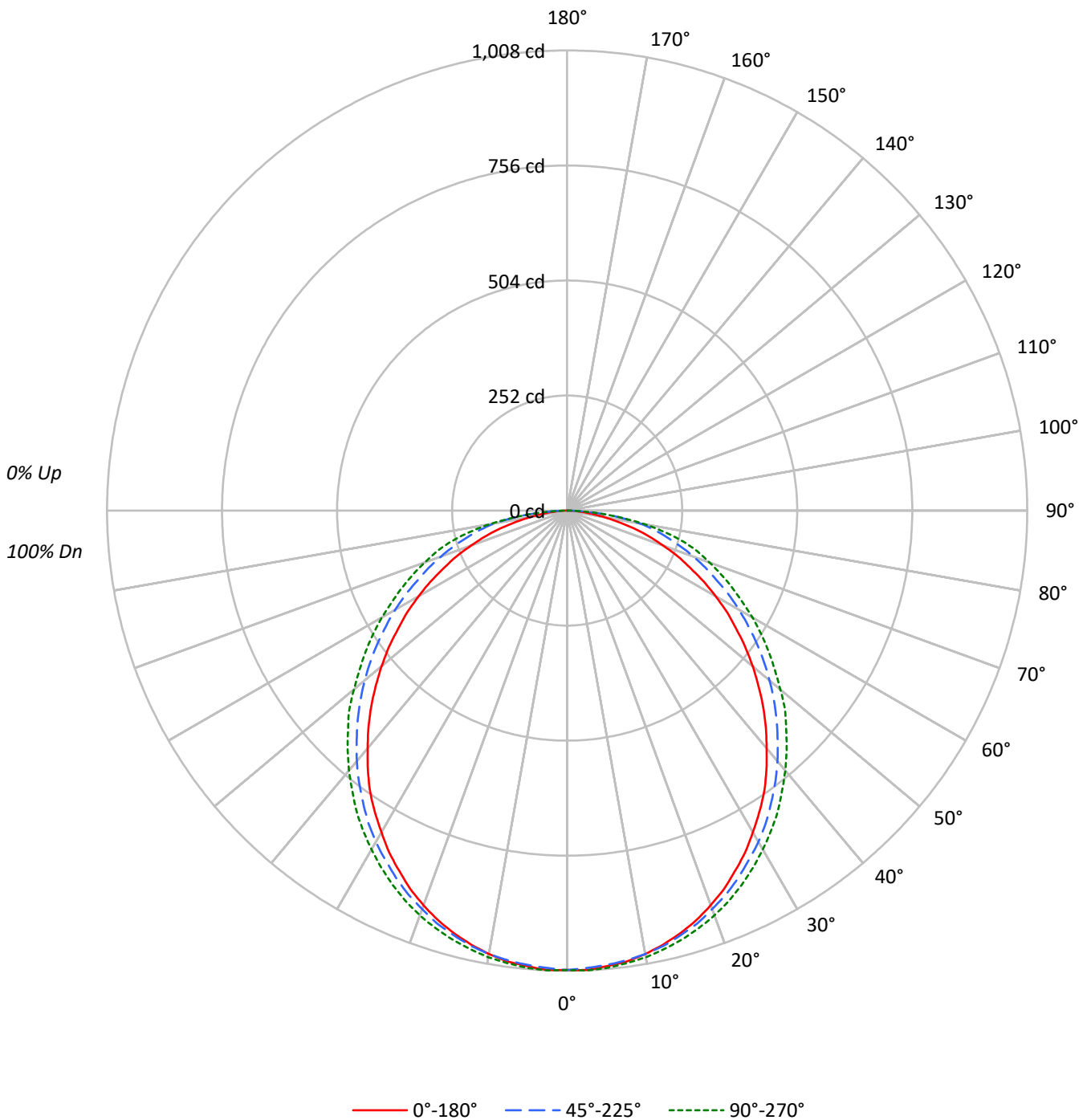
Input Watts (W): 20.181
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1354	1354	1354
5°	1353	1349	1358
10°	1348	1348	1358
15°	1335	1341	1355
20°	1317	1330	1351
25°	1293	1317	1343
30°	1264	1302	1332
35°	1236	1281	1321
40°	1194	1259	1306
45°	1155	1235	1292
50°	1110	1211	1276
55°	1061	1189	1264
60°	1011	1170	1261
65°	947	1150	1269
70°	877	1156	1303
75°	785	1178	1377
80°	635	1248	1347
85°	477	1096	1068



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.3	3.3
10°-20°	272.2	9.5
20°-30°	409.2	14.3
30°-40°	487.5	17.0
40°-50°	498.9	17.4
50°-60°	449.1	15.7
60°-70°	352.7	12.3
70°-80°	228.9	8.0
80°-90°	70.8	2.5
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°	776.7	27.1
0°-40°	1264.2	44.1
0°-60°	2212.2	77.2
0°-90°	2864.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2864.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1006	1006	1006	1006	1006	
5°	1002	1004	999	1005	1006	95
15°	958	961	963	971	973	270
25°	871	878	887	902	904	401
35°	752	762	780	799	804	469
45°	607	622	649	673	679	468
55°	452	472	507	533	539	405
65°	298	320	361	391	399	296
75°	151	180	227	258	265	160
85°	31	57	71	69	69	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1006.4	1006.4	1006.4	1006.4	1006.4
2.5°	1007.3	1007.3	1002.7	1007.3	1008.2
5°	1001.8	1003.7	999.1	1004.6	1005.5
7.5°	996.4	996.4	993.6	999.1	1000.0
10°	986.4	987.3	986.4	992.7	993.6
12.5°	973.6	975.4	976.4	982.7	983.6
15°	958.2	960.9	962.7	970.9	972.7
17.5°	940.9	943.6	948.1	957.2	959.1
20°	919.9	923.6	929.0	940.9	943.6
22.5°	897.2	900.8	909.9	920.9	925.4
25°	870.8	878.1	887.2	901.7	904.5
27.5°	844.4	850.8	862.6	878.1	881.7
30°	813.5	823.5	838.0	853.5	857.2
32.5°	783.5	793.5	810.7	827.1	831.7
35°	752.5	761.6	779.8	798.9	804.4
37.5°	717.0	728.9	748.9	768.0	773.4
40°	679.7	694.3	717.0	737.0	743.4
42.5°	644.2	659.7	682.4	704.3	711.6
45°	606.9	621.5	648.8	673.3	678.8
47.5°	568.7	585.1	614.2	638.8	647.9
50°	530.5	547.8	578.7	604.2	609.7
52.5°	492.3	510.5	543.2	570.5	573.3
55°	452.2	472.3	506.8	533.2	538.7
57.5°	415.8	433.1	470.4	497.7	504.1
60°	375.8	394.9	434.9	460.4	468.6
62.5°	337.6	357.6	399.5	424.9	432.2
65°	297.5	320.3	361.2	391.3	398.6
67.5°	263.0	284.8	328.5	357.6	364.9
70°	222.9	247.5	293.9	323.9	331.2
72.5°	188.4	213.8	260.2	289.4	300.3
75°	151.0	180.2	226.6	257.5	264.8
77.5°	114.7	148.3	195.6	219.3	219.3
80°	81.9	117.4	161.1	172.0	173.8
82.5°	53.7	88.3	119.2	118.3	118.3
85°	30.9	57.3	71.0	69.2	69.2
87.5°	11.8	23.7	25.5	25.5	24.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)