

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: P389692

Luminaire Tested: **24CZ2-30VHE-S-UNV-L940-CD1-SWPD1-U**

Issue Date: 2/28/2020

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: P389692
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-30VHE-S-UNV-L940-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2669.0 lumens
Efficiency: N/A
Efficacy: 130.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.27 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

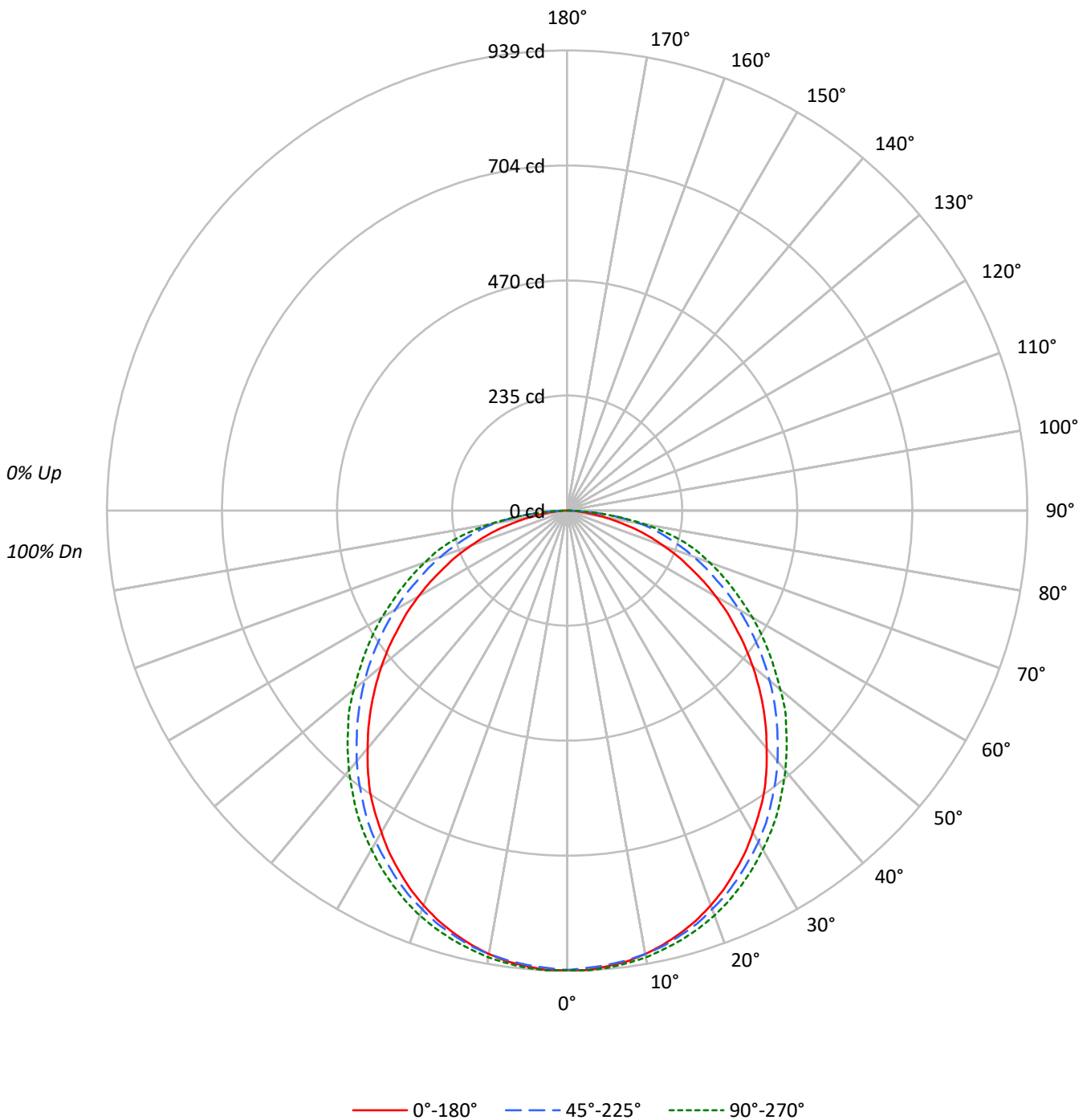
Input Watts (W): 20.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1262	1262	1262
5°	1261	1257	1265
10°	1256	1256	1265
15°	1243	1249	1262
20°	1227	1239	1259
25°	1204	1227	1251
30°	1178	1213	1241
35°	1152	1193	1231
40°	1112	1173	1216
45°	1076	1150	1203
50°	1035	1129	1189
55°	988	1108	1177
60°	942	1090	1175
65°	883	1072	1182
70°	817	1077	1214
75°	731	1097	1282
80°	591	1163	1254
85°	445	1020	994



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.8	3.3
10°-20°	253.6	9.5
20°-30°	381.3	14.3
30°-40°	454.2	17.0
40°-50°	464.8	17.4
50°-60°	418.5	15.7
60°-70°	328.6	12.3
70°-80°	213.3	8.0
80°-90°	66.0	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°	723.7	27.1
0°-40°	1177.8	44.1
0°-60°	2061.1	77.2
0°-90°	2669.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2669.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	938	938	938	938	938	
5°	933	935	931	936	937	89
15°	893	895	897	905	906	252
25°	811	818	827	840	843	374
35°	701	710	726	744	749	437
45°	566	579	604	627	632	436
55°	421	440	472	497	502	378
65°	277	298	337	364	371	276
75°	141	168	211	240	247	149
85°	29	53	66	64	64	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	937.6	937.6	937.6	937.6	937.6
2.5°	938.5	938.5	934.2	938.5	939.3
5°	933.4	935.1	930.9	935.9	936.8
7.5°	928.3	928.3	925.8	930.9	931.7
10°	919.0	919.8	919.0	924.9	925.8
12.5°	907.1	908.8	909.7	915.6	916.4
15°	892.7	895.2	896.9	904.6	906.3
17.5°	876.6	879.1	883.4	891.9	893.6
20°	857.1	860.5	865.6	876.6	879.1
22.5°	835.9	839.3	847.8	857.9	862.2
25°	811.3	818.1	826.6	840.1	842.7
27.5°	786.7	792.7	803.7	818.1	821.5
30°	757.9	767.2	780.8	795.2	798.6
32.5°	729.9	739.3	755.4	770.6	774.9
35°	701.1	709.6	726.5	744.3	749.4
37.5°	668.0	679.1	697.7	715.5	720.6
40°	633.3	646.9	668.0	686.7	692.6
42.5°	600.2	614.6	635.8	656.2	663.0
45°	565.5	579.0	604.5	627.4	632.4
47.5°	529.9	545.1	572.2	595.1	603.6
50°	494.3	510.4	539.2	562.9	568.0
52.5°	458.6	475.6	506.1	531.6	534.1
55°	421.3	440.0	472.2	496.8	501.9
57.5°	387.4	403.5	438.3	463.7	469.7
60°	350.1	367.9	405.2	429.0	436.6
62.5°	314.5	333.2	372.2	395.9	402.7
65°	277.2	298.4	336.6	364.5	371.3
67.5°	245.0	265.4	306.0	333.2	340.0
70°	207.7	230.6	273.8	301.8	308.6
72.5°	175.5	199.2	242.5	269.6	279.8
75°	140.7	167.9	211.1	239.9	246.7
77.5°	106.8	138.2	182.3	204.3	204.3
80°	76.3	109.4	150.1	160.2	161.9
82.5°	50.0	82.2	111.1	110.2	110.2
85°	28.8	53.4	66.1	64.4	64.4
87.5°	11.0	22.0	23.7	23.7	22.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)