

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: P389695

Luminaire Tested: **24CZ2-30VHE-S-UNV-L950-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: P389695
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-L950-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2833.1 lumens
Efficiency: N/A
Efficacy: 138.9 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

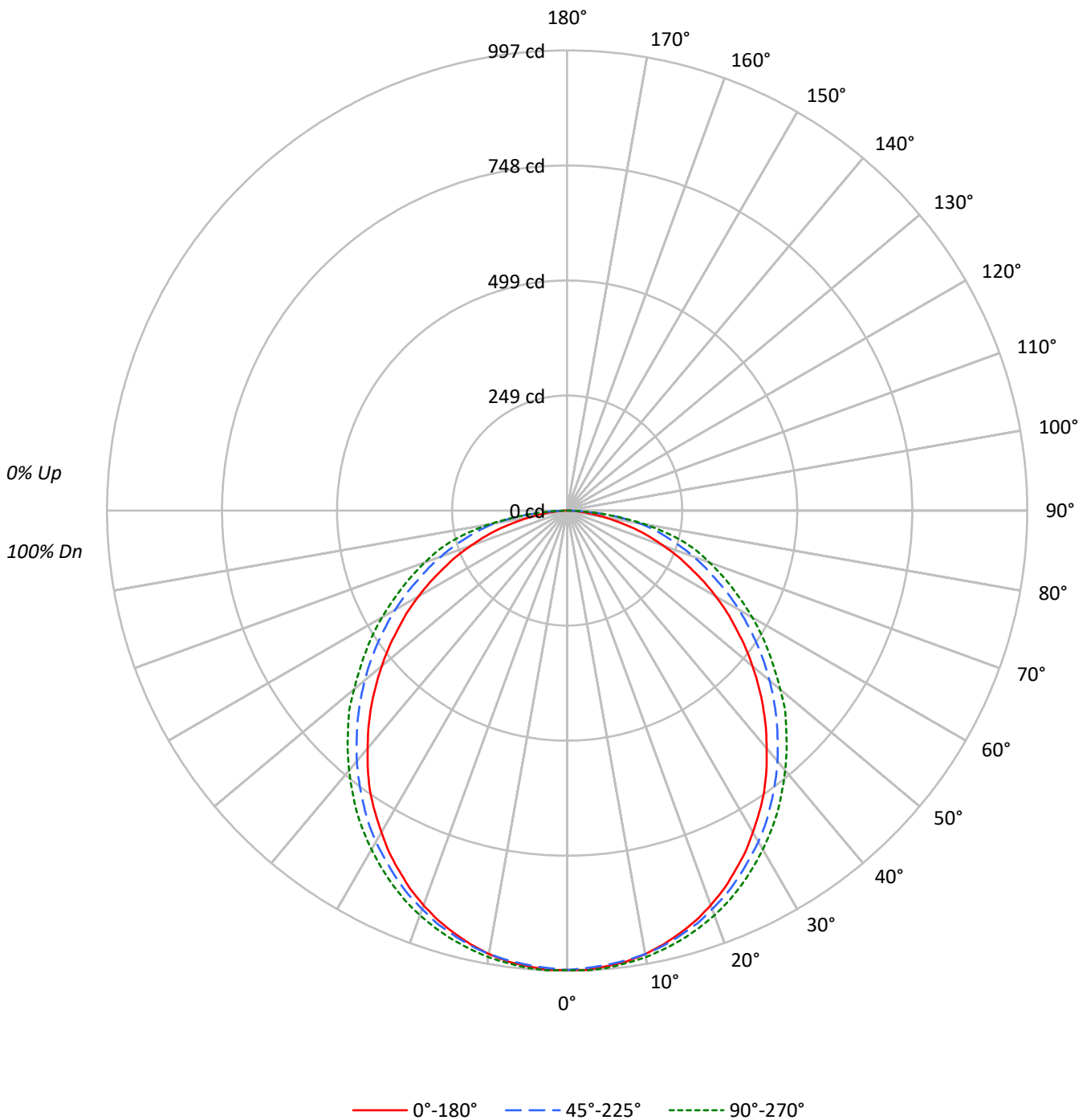
Input Watts (W): 20.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1339	1339	1339
5°	1338	1335	1343
10°	1333	1333	1343
15°	1320	1326	1340
20°	1303	1316	1336
25°	1279	1303	1328
30°	1250	1288	1317
35°	1222	1267	1307
40°	1181	1245	1291
45°	1142	1221	1277
50°	1098	1198	1262
55°	1049	1176	1250
60°	1000	1157	1247
65°	937	1137	1255
70°	867	1144	1289
75°	777	1165	1362
80°	628	1234	1332
85°	472	1084	1056



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.2	3.3
10°-20°	269.2	9.5
20°-30°	404.7	14.3
30°-40°	482.1	17.0
40°-50°	493.4	17.4
50°-60°	444.2	15.7
60°-70°	348.8	12.3
70°-80°	226.4	8.0
80°-90°	70.0	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°	768.2	27.1
0°-40°	1250.3	44.1
0°-60°	2187.8	77.2
0°-90°	2833.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2833.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	995	995	995	995	995	
5°	991	993	988	994	994	94
15°	948	950	952	960	962	267
25°	861	868	877	892	894	397
35°	744	753	771	790	796	464
45°	600	615	642	666	671	463
55°	447	467	501	527	533	401
65°	294	317	357	387	394	293
75°	149	178	224	255	262	158
85°	31	57	70	68	68	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	995.3	995.3	995.3	995.3	995.3
2.5°	996.2	996.2	991.7	996.2	997.1
5°	990.8	992.6	988.1	993.5	994.4
7.5°	985.4	985.4	982.7	988.1	989.0
10°	975.5	976.4	975.5	981.8	982.7
12.5°	962.9	964.7	965.6	971.9	972.8
15°	947.6	950.3	952.1	960.2	962.0
17.5°	930.5	933.2	937.7	946.7	948.5
20°	909.8	913.4	918.8	930.5	933.2
22.5°	887.3	890.9	899.9	910.7	915.2
25°	861.2	868.4	877.4	891.8	894.5
27.5°	835.1	841.4	853.1	868.4	872.0
30°	804.5	814.4	828.8	844.1	847.7
32.5°	774.8	784.7	801.8	818.0	822.5
35°	744.2	753.2	771.2	790.1	795.5
37.5°	709.1	720.8	740.6	759.5	764.9
40°	672.2	686.6	709.1	728.9	735.2
42.5°	637.1	652.4	674.9	696.5	703.7
45°	600.2	614.6	641.6	665.9	671.3
47.5°	562.4	578.6	607.4	631.7	640.7
50°	524.6	541.7	572.3	597.5	602.9
52.5°	486.8	504.8	537.2	564.2	566.9
55°	447.2	467.0	501.2	527.3	532.7
57.5°	411.2	428.3	465.2	492.2	498.5
60°	371.6	390.5	430.1	455.3	463.4
62.5°	333.9	353.6	395.0	420.2	427.4
65°	294.3	316.8	357.2	386.9	394.1
67.5°	260.1	281.7	324.9	353.6	360.8
70°	220.5	244.8	290.7	320.4	327.6
72.5°	186.3	211.5	257.4	286.2	297.0
75°	149.4	178.2	224.1	254.7	261.9
77.5°	113.4	146.7	193.5	216.9	216.9
80°	81.0	116.1	159.3	170.1	171.9
82.5°	53.1	87.3	117.9	117.0	117.0
85°	30.6	56.7	70.2	68.4	68.4
87.5°	11.7	23.4	25.2	25.2	24.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)