

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: P391230

Luminaire Tested: **24CZ2-30VHE-HRP-UNV-L950-CD1-SDWPD1-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: P391230  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-30VHE-HRP-UNV-L950-CD1-SDWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND HRP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2261.0 lumens  
Efficiency: N/A  
Efficacy: 110.8 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

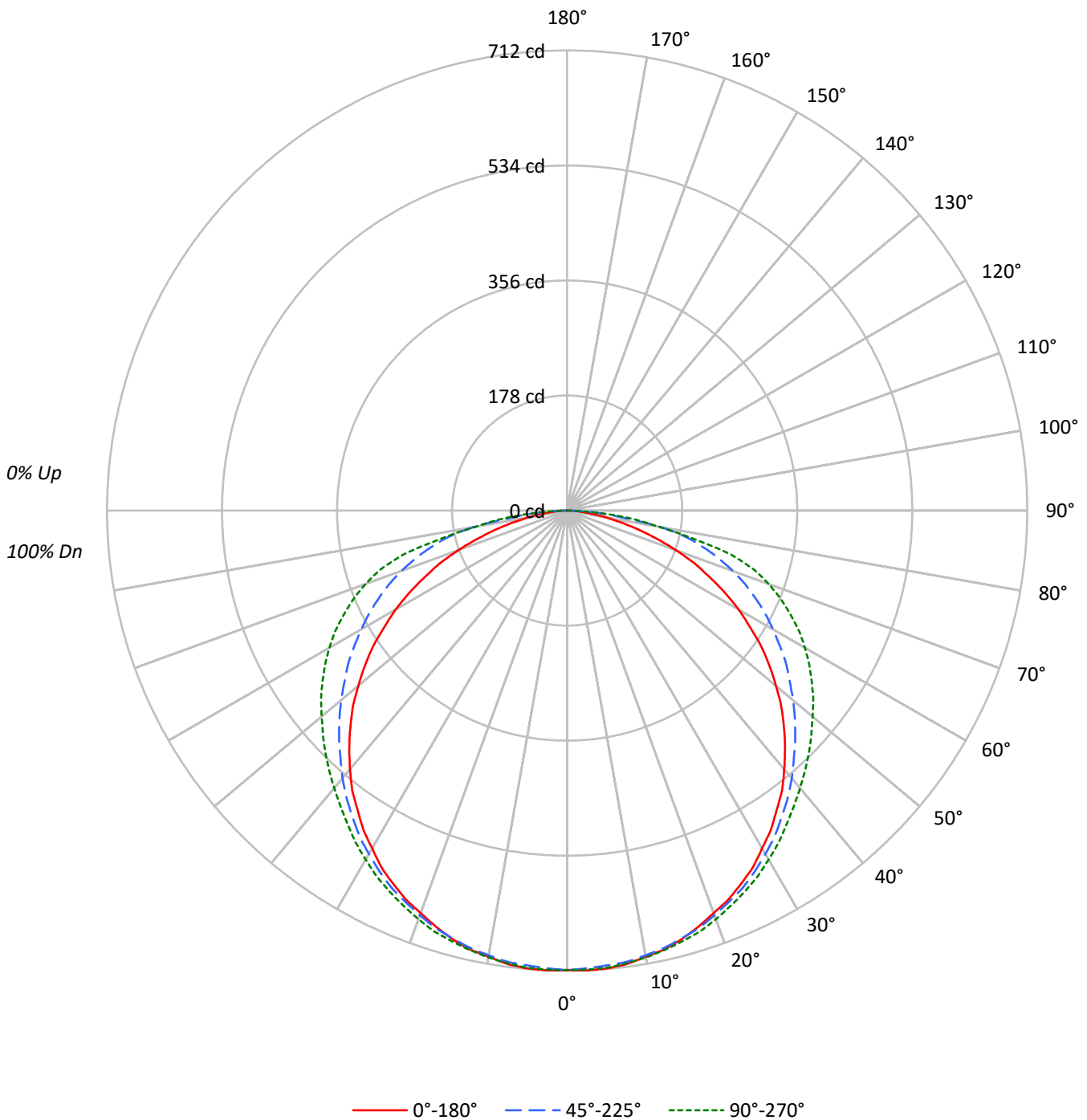
Input Watts (W): 20.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	957	957	957
5°	960	954	959
10°	958	955	959
15°	956	954	961
20°	949	954	963
25°	946	956	966
30°	937	953	969
35°	928	951	973
40°	918	950	985
45°	903	950	1007
50°	883	955	1038
55°	860	971	1084
60°	824	990	1144
65°	771	1025	1214
70°	701	1072	1306
75°	595	1131	1364
80°	470	1138	1103
85°	346	866	969



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.4	3.0
10°-20°	194.1	8.6
20°-30°	296.8	13.1
30°-40°	362.9	16.0
40°-50°	386.8	17.1
50°-60°	369.8	16.4
60°-70°	313.3	13.9
70°-80°	210.5	9.3
80°-90°	59.4	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°	558.4	24.7
0°-40°	921.3	40.7
0°-60°	1677.8	74.2
0°-90°	2261.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2261.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	711	711	711	711	711	
5°	711	710	706	710	710	68
15°	686	686	685	691	690	194
25°	637	639	644	649	650	294
35°	565	570	579	590	592	354
45°	474	482	499	520	529	366
55°	367	380	414	446	462	327
65°	242	267	322	364	381	240
75°	114	156	218	255	262	122
85°	22	46	56	61	63	28
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	711.0	711.0	711.0	711.0	711.0
2.5°	712.1	712.1	708.8	711.0	711.0
5°	711.0	709.9	706.5	709.9	709.9
7.5°	707.7	706.5	704.3	707.7	706.5
10°	700.9	700.9	698.7	702.0	702.0
12.5°	695.3	694.2	693.1	697.6	696.4
15°	686.3	686.3	685.2	690.8	689.7
17.5°	675.1	676.3	677.4	681.9	683.0
20°	662.8	665.0	666.2	672.9	672.9
22.5°	651.6	652.7	654.9	661.7	661.7
25°	637.0	639.2	643.7	649.3	650.5
27.5°	622.4	623.5	629.2	637.0	638.1
30°	603.4	606.7	613.5	622.4	623.5
32.5°	586.5	589.9	597.8	606.7	609.0
35°	565.2	569.7	578.7	589.9	592.1
37.5°	546.2	549.5	560.7	573.1	576.4
40°	522.6	529.3	540.6	555.1	560.7
42.5°	499.1	505.8	519.2	538.3	545.0
45°	474.4	482.2	499.1	520.4	529.3
47.5°	449.7	458.7	477.8	502.4	512.5
50°	421.7	432.9	456.4	484.5	495.7
52.5°	394.8	408.2	434.0	465.4	480.0
55°	366.7	380.2	413.8	446.4	462.1
57.5°	335.3	353.3	390.3	427.3	444.1
60°	306.2	323.0	367.8	408.2	425.0
62.5°	274.8	297.2	345.4	388.0	404.9
65°	242.2	266.9	321.9	364.5	381.3
67.5°	213.1	240.0	298.3	340.9	357.8
70°	178.3	212.0	272.5	315.1	332.0
72.5°	145.8	182.8	245.6	287.1	302.8
75°	114.4	155.9	217.6	254.6	262.4
77.5°	85.2	129.0	188.4	204.1	198.5
80°	60.6	103.2	146.9	139.1	142.4
82.5°	39.3	78.5	90.8	103.2	106.5
85°	22.4	46.0	56.1	60.6	62.8
87.5°	10.1	16.8	22.4	22.4	21.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)