

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: P390220

Luminaire Tested: **22CZ2-29VHE-HRP-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: P390220
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-29VHE-HRP-UNV-L940-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2229.9 lumens
Efficiency: N/A
Efficacy: 102.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

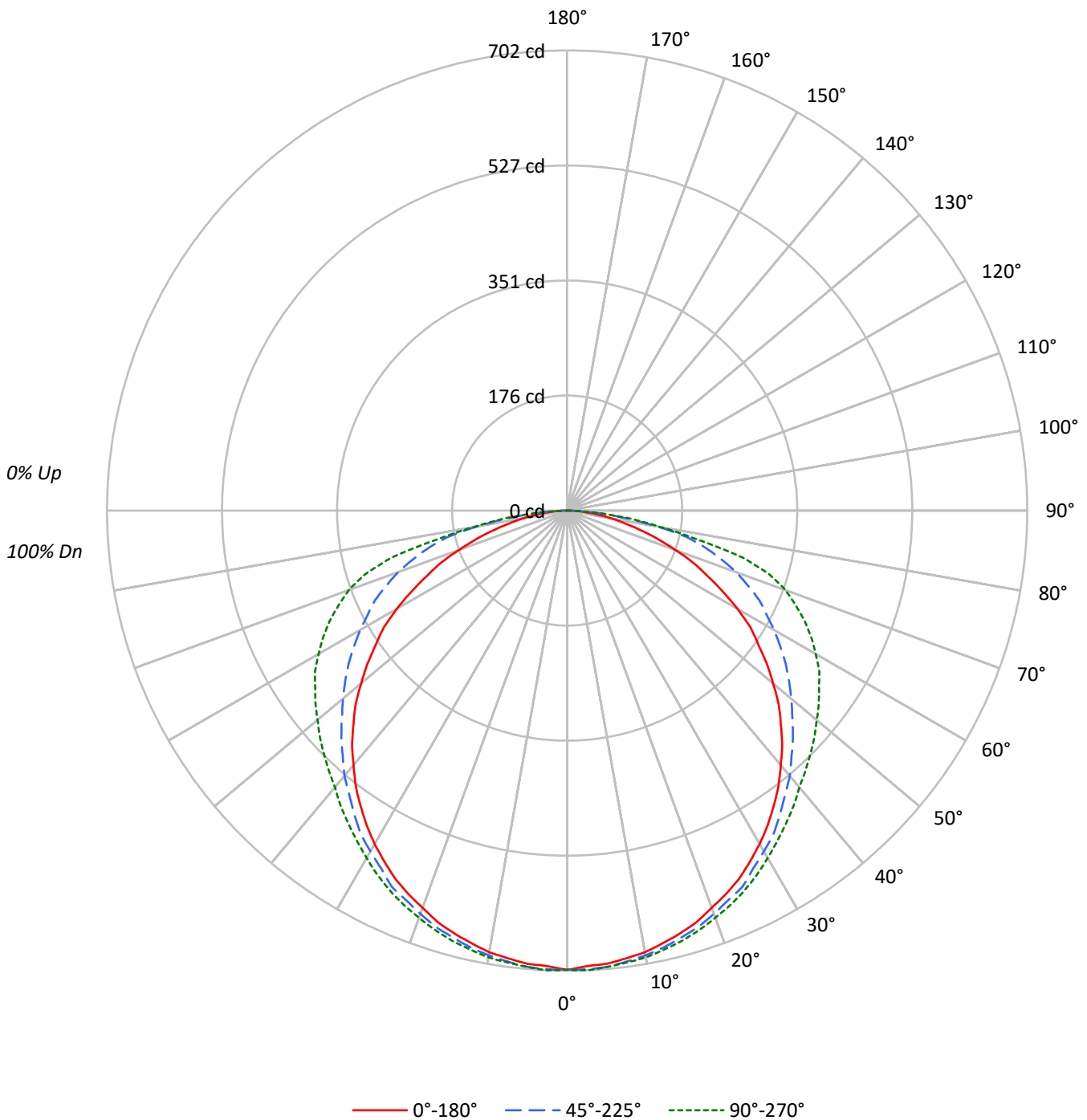
Input Watts (W): 21.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	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°	1885	1885	1885
5°	1874	1888	1888
10°	1869	1883	1891
15°	1860	1878	1892
20°	1846	1874	1893
25°	1841	1880	1900
30°	1825	1866	1901
35°	1805	1859	1913
40°	1781	1855	1936
45°	1754	1854	1998
50°	1717	1868	2081
55°	1670	1909	2201
60°	1616	1960	2357
65°	1504	2058	2549
70°	1381	2155	2788
75°	1211	2269	2882
80°	1043	2160	2263
85°	911	1572	1723



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.3	3.0
10°-20°	190.2	8.5
20°-30°	290.2	13.0
30°-40°	354.4	15.9
40°-50°	378.9	17.0
50°-60°	365.7	16.4
60°-70°	314.8	14.1
70°-80°	213.0	9.6
80°-90°	56.2	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°	546.7	24.5
0°-40°	901.1	40.4
0°-60°	1645.8	73.8
0°-90°	2229.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2229.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	700	700	700	700	700	
5°	694	696	699	699	699	66
15°	668	669	674	678	679	188
25°	620	623	633	636	640	285
35°	550	554	566	577	582	344
45°	461	469	487	512	525	356
55°	356	367	407	448	469	319
65°	236	259	323	374	400	235
75°	116	154	218	262	277	125
85°	30	41	51	52	56	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	700.5	700.5	700.5	700.5	700.5
2.5°	695.5	697.2	700.5	700.5	702.1
5°	693.9	695.5	698.8	698.8	698.8
7.5°	689.0	690.6	693.9	695.5	695.5
10°	684.0	685.7	689.0	690.6	692.2
12.5°	675.8	677.5	682.4	685.7	685.7
15°	667.6	669.3	674.2	677.5	679.1
17.5°	657.8	661.1	666.0	669.3	670.9
20°	644.7	648.0	654.5	659.4	661.1
22.5°	633.2	636.5	643.0	648.0	651.2
25°	620.1	623.4	633.2	636.5	639.8
27.5°	603.7	606.9	615.1	621.7	626.6
30°	587.3	590.5	600.4	608.6	611.9
32.5°	569.2	574.1	585.6	592.2	597.1
35°	549.5	554.5	565.9	577.4	582.3
37.5°	529.8	534.8	546.3	561.0	567.6
40°	506.9	513.4	528.2	547.9	551.2
42.5°	485.6	493.8	506.9	529.8	538.1
45°	461.0	469.2	487.2	511.8	524.9
47.5°	438.0	446.2	465.9	495.4	511.8
50°	410.1	421.6	446.2	480.6	497.0
52.5°	383.9	393.7	426.5	464.2	483.9
55°	356.0	367.4	406.8	447.8	469.2
57.5°	331.4	341.2	385.5	431.4	456.0
60°	300.2	313.3	364.2	413.4	438.0
62.5°	267.4	287.1	342.8	393.7	419.9
65°	236.2	259.2	323.2	374.0	400.3
67.5°	208.3	232.9	298.6	352.7	377.3
70°	175.5	206.7	273.9	326.4	354.3
72.5°	146.0	180.4	246.1	298.6	323.2
75°	116.5	154.2	218.2	262.5	277.2
77.5°	90.2	126.3	187.0	200.1	201.8
80°	67.3	100.1	139.4	141.1	146.0
82.5°	45.9	70.5	90.2	98.4	100.1
85°	29.5	41.0	50.9	52.5	55.8
87.5°	13.1	14.8	18.0	16.4	16.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)