

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: P388395

Luminaire Tested: **24CZ2-150VHE-SQR-UNV-L935-CD2-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: P388395
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)
Test Lab: INNOVATION CENTER (G2)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-150VHE-SQR-UNV-L935-CD2-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11888.3 lumens
Efficiency: N/A
Efficacy: 114.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

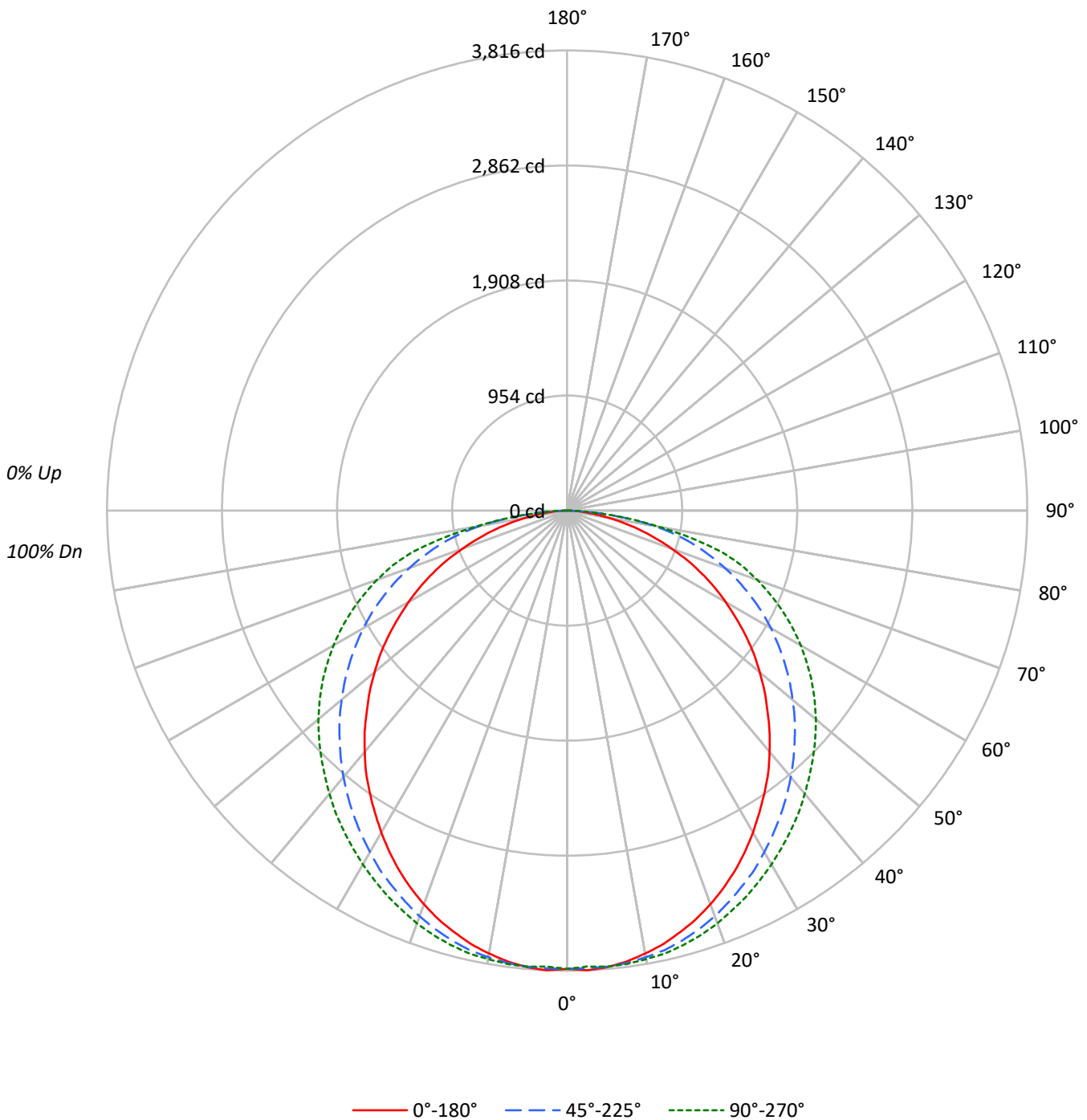
Input Watts (W): 104.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82					82			
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67					67			
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56					56			
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47					47			
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43	41					41			
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35					35			
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31					31			
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28					28			
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25					25			
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22					22			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5113	5113	5113
5°	5133	5127	5127
10°	5095	5138	5160
15°	5042	5140	5195
20°	4974	5126	5216
25°	4890	5100	5234
30°	4788	5081	5264
35°	4688	5068	5313
40°	4585	5068	5385
45°	4467	5080	5490
50°	4363	5111	5637
55°	4236	5166	5811
60°	4088	5250	6021
65°	3912	5349	6274
70°	3629	5482	6594
75°	3285	5673	6898
80°	2768	5688	5931
85°	2121	4303	4303



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	360.7	3.0
10°-20°	1037.8	8.7
20°-30°	1576.4	13.3
30°-40°	1917.4	16.1
40°-50°	2041.5	17.2
50°-60°	1944.4	16.4
60°-70°	1626.1	13.7
70°-80°	1084.1	9.1
80°-90°	300.0	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°	2974.9	25.0
0°-40°	4892.3	41.2
0°-60°	8878.2	74.7
0°-90°	11888.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11888.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3800	3800	3800	3800	3800	
5°	3800	3776	3796	3796	3796	360
15°	3620	3627	3690	3718	3729	1021
25°	3294	3337	3435	3494	3525	1516
35°	2854	2936	3086	3188	3235	1786
45°	2348	2473	2670	2819	2885	1815
55°	1806	1963	2202	2395	2477	1614
65°	1229	1409	1680	1888	1971	1214
75°	632	832	1091	1276	1327	670
85°	137	255	279	275	279	166
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3800.1	3800.1	3800.1	3800.1	3800.1
2.5°	3815.8	3788.3	3800.1	3800.1	3784.4
5°	3800.1	3776.5	3796.2	3796.2	3796.2
7.5°	3772.6	3753.0	3784.4	3792.2	3792.2
10°	3729.4	3721.6	3760.8	3772.6	3776.5
12.5°	3682.3	3678.4	3733.3	3749.0	3760.8
15°	3619.5	3627.3	3690.2	3717.6	3729.4
17.5°	3552.8	3568.5	3639.1	3678.4	3690.2
20°	3474.2	3497.8	3580.2	3619.5	3643.1
22.5°	3387.9	3423.2	3509.6	3556.7	3584.2
25°	3293.7	3336.8	3435.0	3493.9	3525.3
27.5°	3191.6	3246.6	3360.4	3427.1	3458.5
30°	3081.7	3144.5	3270.1	3348.6	3387.9
32.5°	2967.8	3042.4	3179.8	3266.2	3313.3
35°	2854.0	2936.4	3085.6	3187.7	3234.8
37.5°	2740.1	2822.6	2987.5	3097.4	3156.3
40°	2610.6	2708.7	2885.4	3007.1	3066.0
42.5°	2485.0	2591.0	2779.4	2912.9	2975.7
45°	2347.6	2473.2	2669.5	2818.7	2885.4
47.5°	2221.9	2347.6	2559.6	2716.6	2791.2
50°	2084.5	2218.0	2441.8	2614.5	2693.0
52.5°	1951.1	2088.5	2324.0	2508.5	2587.0
55°	1805.8	1962.9	2202.3	2394.7	2477.1
57.5°	1660.6	1829.4	2076.7	2276.9	2359.3
60°	1519.2	1692.0	1951.1	2151.3	2237.6
62.5°	1377.9	1550.7	1821.5	2025.7	2108.1
65°	1228.7	1409.3	1680.2	1888.3	1970.7
67.5°	1079.6	1268.0	1538.9	1746.9	1825.5
70°	922.5	1122.8	1393.6	1597.8	1676.3
72.5°	777.3	977.5	1244.4	1444.7	1519.2
75°	632.0	832.2	1091.3	1275.9	1326.9
77.5°	490.7	690.9	922.5	1044.2	1056.0
80°	357.2	545.7	734.1	769.4	765.5
82.5°	239.5	408.3	506.4	510.3	522.1
85°	137.4	255.2	278.7	274.8	278.7
87.5°	55.0	90.3	78.5	58.9	58.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)