

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: P276010

Luminaire Tested: **24CZ2-70HE-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P276010
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-70HE-UNV-L93050-W2A1-U-4500K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER
WITH RIBBED LENS
Light Source: (336) 90 CRI LEDS TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6230.0 lumens
Efficiency: N/A
Efficacy: 111.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

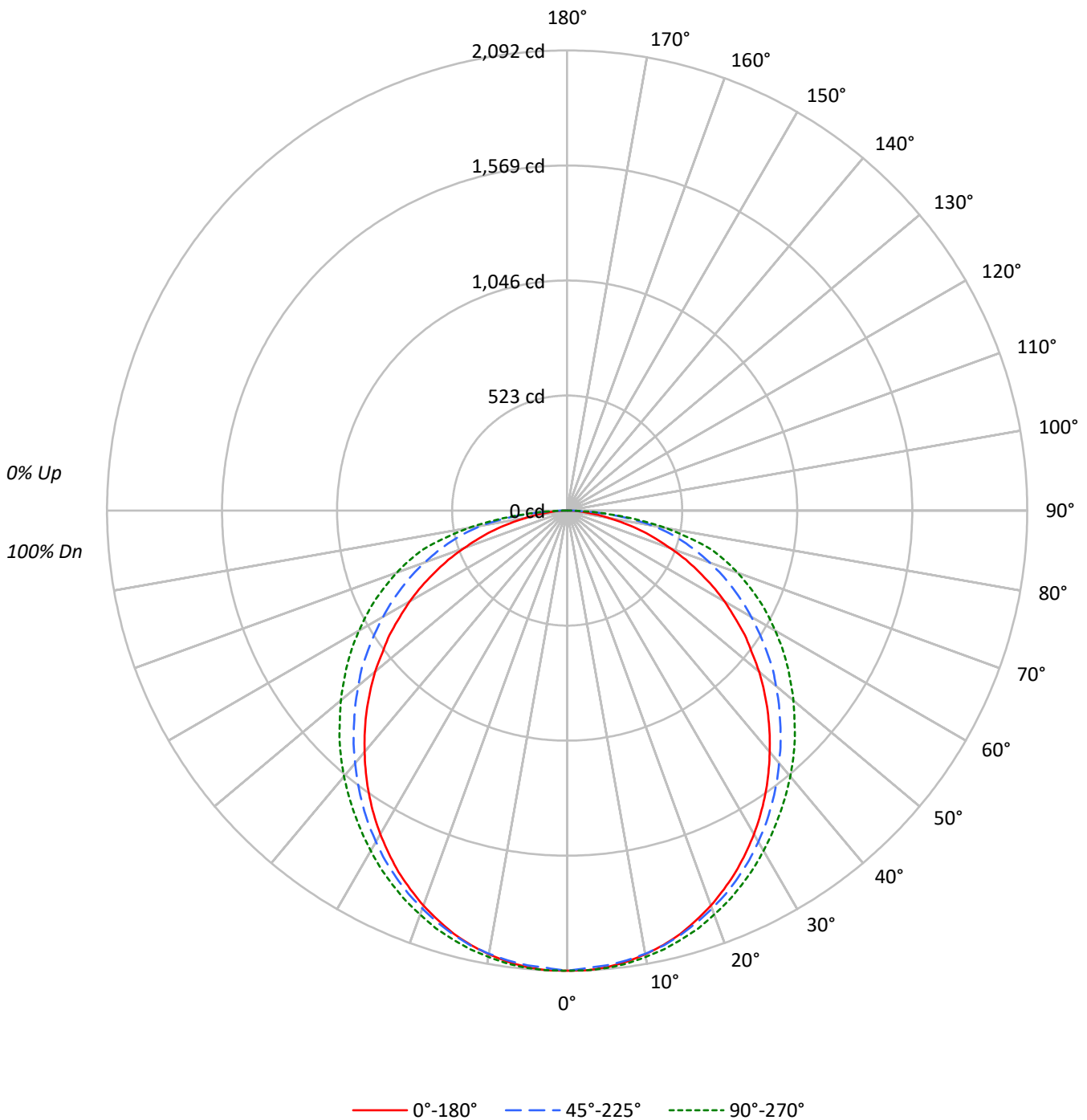
Input Watts (W): 55.914762
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67					67			
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56					56			
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48					48			
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41					41			
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36					36			
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32					32			
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28					28			
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25					25			
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23					23			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2814	2814	2814
5°	2814	2803	2819
10°	2798	2795	2815
15°	2775	2780	2809
20°	2736	2757	2799
25°	2692	2732	2787
30°	2639	2701	2775
35°	2582	2667	2766
40°	2516	2633	2772
45°	2453	2607	2785
50°	2385	2594	2812
55°	2312	2590	2863
60°	2221	2602	2937
65°	2105	2641	3065
70°	1955	2707	3239
75°	1784	2843	3513
80°	1466	3061	3512
85°	1124	2825	3017



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	197.8	3.2
10°-20°	564.8	9.1
20°-30°	849.9	13.6
30°-40°	1018.5	16.3
40°-50°	1061.4	17.0
50°-60°	987.5	15.9
60°-70°	813.3	13.1
70°-80°	553.9	8.9
80°-90°	182.9	2.9
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°	1612.5	25.9
0°-40°	2631.0	42.2
0°-60°	4679.9	75.1
0°-90°	6230.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6230.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2092	2092	2092	2092	2092	
5°	2083	2083	2075	2086	2088	198
15°	1992	1994	1996	2015	2017	561
25°	1813	1821	1840	1871	1878	835
35°	1572	1591	1624	1668	1684	983
45°	1289	1316	1370	1439	1464	994
55°	986	1019	1104	1191	1220	878
65°	661	717	830	927	963	656
75°	343	420	547	645	676	362
85°	73	141	183	195	195	90
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2091.7	2091.7	2091.7	2091.7	2091.7
2.5°	2091.7	2091.7	2081.3	2091.7	2091.7
5°	2083.4	2083.4	2075.1	2085.5	2087.5
7.5°	2068.8	2070.9	2062.6	2075.1	2077.1
10°	2048.0	2050.1	2046.0	2058.4	2060.5
12.5°	2023.1	2025.2	2025.2	2039.7	2041.8
15°	1991.9	1994.0	1996.1	2014.8	2016.9
17.5°	1952.4	1958.6	1962.8	1985.7	1989.8
20°	1910.8	1917.0	1925.4	1950.3	1954.5
22.5°	1863.0	1871.3	1885.9	1912.9	1919.1
25°	1813.1	1821.4	1840.1	1871.3	1877.5
27.5°	1756.9	1769.4	1792.3	1825.6	1833.9
30°	1698.7	1711.2	1738.2	1773.6	1786.1
32.5°	1636.4	1653.0	1684.2	1723.7	1736.2
35°	1571.9	1590.6	1623.9	1667.5	1684.2
37.5°	1503.3	1524.1	1563.6	1611.4	1632.2
40°	1432.6	1457.5	1499.1	1555.3	1578.1
42.5°	1361.9	1384.8	1436.7	1497.0	1522.0
45°	1289.1	1316.2	1370.2	1438.8	1463.8
47.5°	1214.3	1241.3	1305.8	1378.5	1401.4
50°	1139.4	1166.4	1239.2	1316.2	1343.2
52.5°	1058.3	1093.7	1176.8	1253.8	1280.8
55°	985.6	1018.8	1104.1	1191.4	1220.5
57.5°	902.4	941.9	1035.5	1126.9	1158.1
60°	825.5	867.0	966.8	1060.4	1091.6
62.5°	746.4	792.2	898.2	993.9	1029.2
65°	661.2	717.3	829.6	927.3	962.7
67.5°	584.3	642.5	761.0	860.8	892.0
70°	496.9	567.6	688.2	788.0	823.4
72.5°	422.1	492.8	619.6	717.3	752.7
75°	343.1	420.0	546.8	644.6	675.7
77.5°	264.1	349.3	476.1	551.0	561.4
80°	189.2	278.6	395.1	438.7	453.3
82.5°	133.1	214.2	291.1	320.2	328.5
85°	72.8	141.4	183.0	195.4	195.4
87.5°	31.2	60.3	72.8	74.9	76.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)