

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: P473978

Luminaire Tested: **24CZ2-75HE-S-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473978
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-75HE-S-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

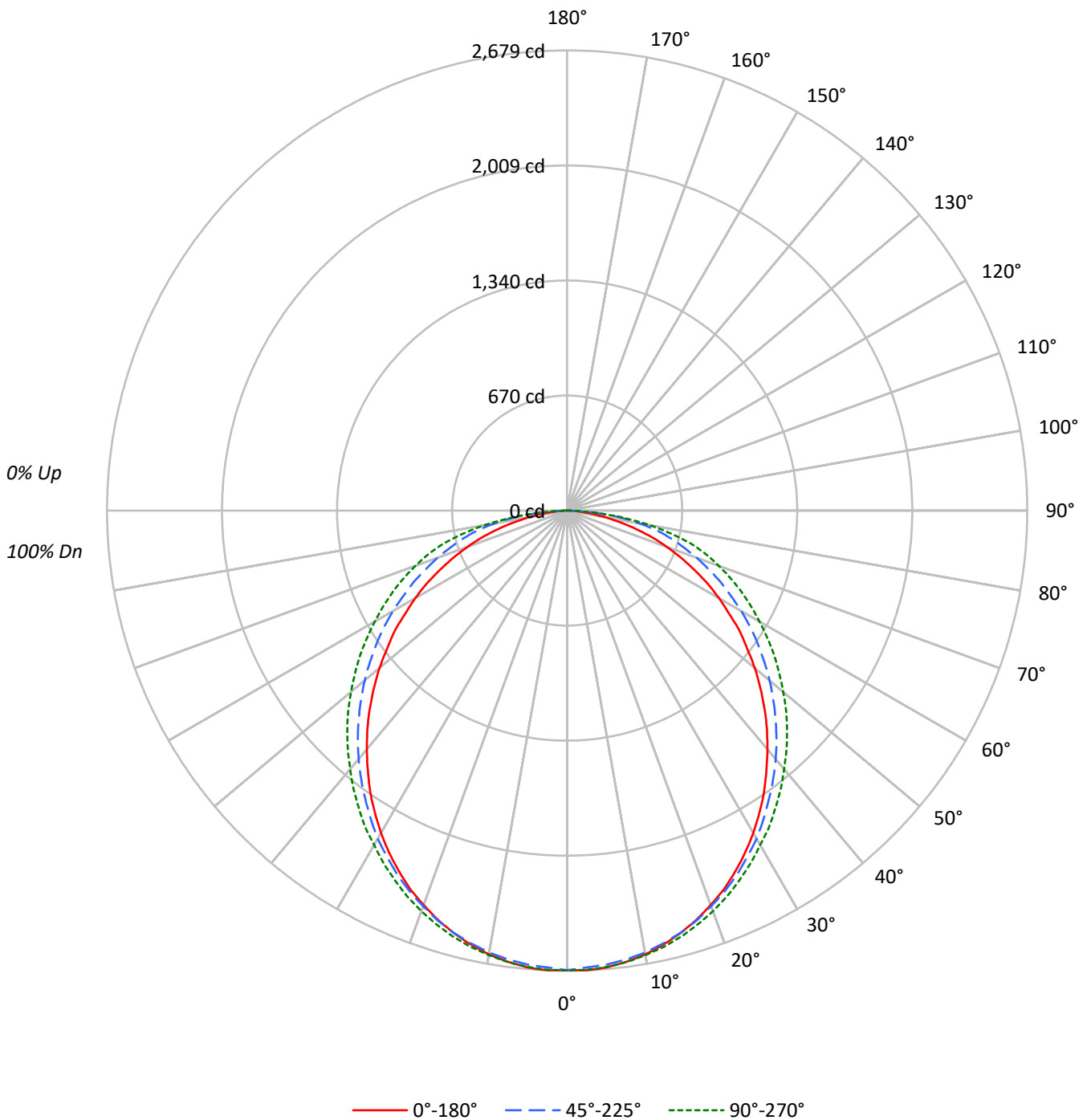
Lumens per Lamp: N/A
Luminaire Lumens: 7664.8 lumens
Efficiency: N/A
Efficacy: 138.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 55.4
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



TEST NUMBER: P473978
CATALOG NUMBER: 24CZ2-75HE-S-UNV-L830-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P473978

CATALOG NUMBER: 24CZ2-75HE-S-UNV-L830-CD1-U

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	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83					83			
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68					68			
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	59	57					57			
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	55	51	49					49			
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42					42			
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37					37			
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32					32			
8	60	46	38	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29					29			
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26					26			
10	52	39	31	26	51	39	31	26	38	30	26	37	30	25	36	30	25	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3600	3600	3600
5°	3605	3583	3601
10°	3585	3569	3590
15°	3548	3546	3576
20°	3499	3510	3553
25°	3441	3471	3525
30°	3368	3427	3491
35°	3284	3367	3472
40°	3186	3317	3452
45°	3090	3265	3445
50°	2986	3220	3436
55°	2879	3181	3455
60°	2747	3151	3479
65°	2601	3138	3563
70°	2427	3155	3690
75°	2160	3247	3887
80°	1766	3317	3794
85°	1244	2896	2955



TEST NUMBER: P473978

CATALOG NUMBER: 24CZ2-75HE-S-UNV-L830-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	252.9	3.3
10°-20°	720.4	9.4
20°-30°	1079.8	14.1
30°-40°	1286.1	16.8
40°-50°	1326.1	17.3
50°-60°	1210.1	15.8
60°-70°	967.6	12.6
70°-80°	632.0	8.2
80°-90°	189.8	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°	2053.1	26.8
0°-40°	3339.2	43.6
0°-60°	5875.4	76.7
0°-90°	7664.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7664.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2675	2675	2675	2675	2675	
5°	2669	2664	2653	2669	2666	253
15°	2547	2548	2546	2567	2567	718
25°	2318	2322	2338	2372	2374	1067
35°	1999	2013	2050	2101	2114	1249
45°	1624	1653	1716	1788	1810	1252
55°	1228	1263	1356	1445	1473	1093
65°	817	872	986	1083	1119	810
75°	416	485	624	725	748	442
85°	81	145	188	191	191	102
90°	0	0	0	0	0	



TEST NUMBER: P473978

CATALOG NUMBER: 24CZ2-75HE-S-UNV-L830-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2675.4	2675.4	2675.4	2675.4	2675.4
2.5°	2679.1	2675.4	2661.5	2677.9	2675.4
5°	2669.1	2664.0	2652.7	2669.1	2666.5
7.5°	2648.9	2646.4	2635.1	2654.0	2651.4
10°	2623.7	2621.2	2612.4	2631.3	2627.5
12.5°	2588.5	2587.2	2580.9	2603.6	2601.1
15°	2546.9	2548.2	2545.7	2567.1	2567.1
17.5°	2499.1	2497.8	2502.9	2529.3	2526.8
20°	2443.7	2445.0	2451.3	2481.5	2481.5
22.5°	2385.8	2384.5	2398.4	2428.6	2431.1
25°	2317.8	2321.6	2337.9	2371.9	2374.5
27.5°	2244.8	2251.1	2271.2	2310.3	2314.0
30°	2168.0	2175.5	2205.8	2242.3	2247.3
32.5°	2083.6	2100.0	2127.7	2174.3	2186.9
35°	1999.3	2013.1	2049.6	2101.3	2113.8
37.5°	1906.1	1928.8	1970.3	2027.0	2043.3
40°	1814.2	1836.9	1888.5	1947.7	1965.3
42.5°	1721.0	1745.0	1804.1	1870.9	1889.7
45°	1624.1	1653.1	1716.0	1787.8	1810.4
47.5°	1524.6	1558.6	1626.6	1704.7	1729.9
50°	1426.4	1460.4	1538.5	1619.1	1641.7
52.5°	1320.7	1363.5	1446.6	1533.5	1556.1
55°	1227.5	1262.8	1355.9	1445.3	1473.0
57.5°	1118.0	1165.8	1265.3	1355.9	1382.4
60°	1021.0	1065.1	1170.9	1262.8	1293.0
62.5°	922.8	968.2	1073.9	1178.4	1206.1
65°	817.1	872.5	985.8	1082.7	1119.2
67.5°	716.4	774.3	890.1	993.3	1031.1
70°	616.9	676.1	802.0	907.7	937.9
72.5°	518.7	580.4	711.3	814.6	849.8
75°	415.5	484.7	624.5	725.2	747.8
77.5°	318.5	395.3	536.3	604.3	620.7
80°	227.9	312.2	428.1	477.2	489.7
82.5°	149.8	231.7	319.8	346.2	342.4
85°	80.6	144.8	187.6	191.4	191.4
87.5°	31.5	57.9	59.2	45.3	42.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)