

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: P474026

Luminaire Tested: **24CZ2-65HE-S-UNV-L835-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474026
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-65HE-S-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6912.6 lumens
Efficiency: N/A
Efficacy: 141.4 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

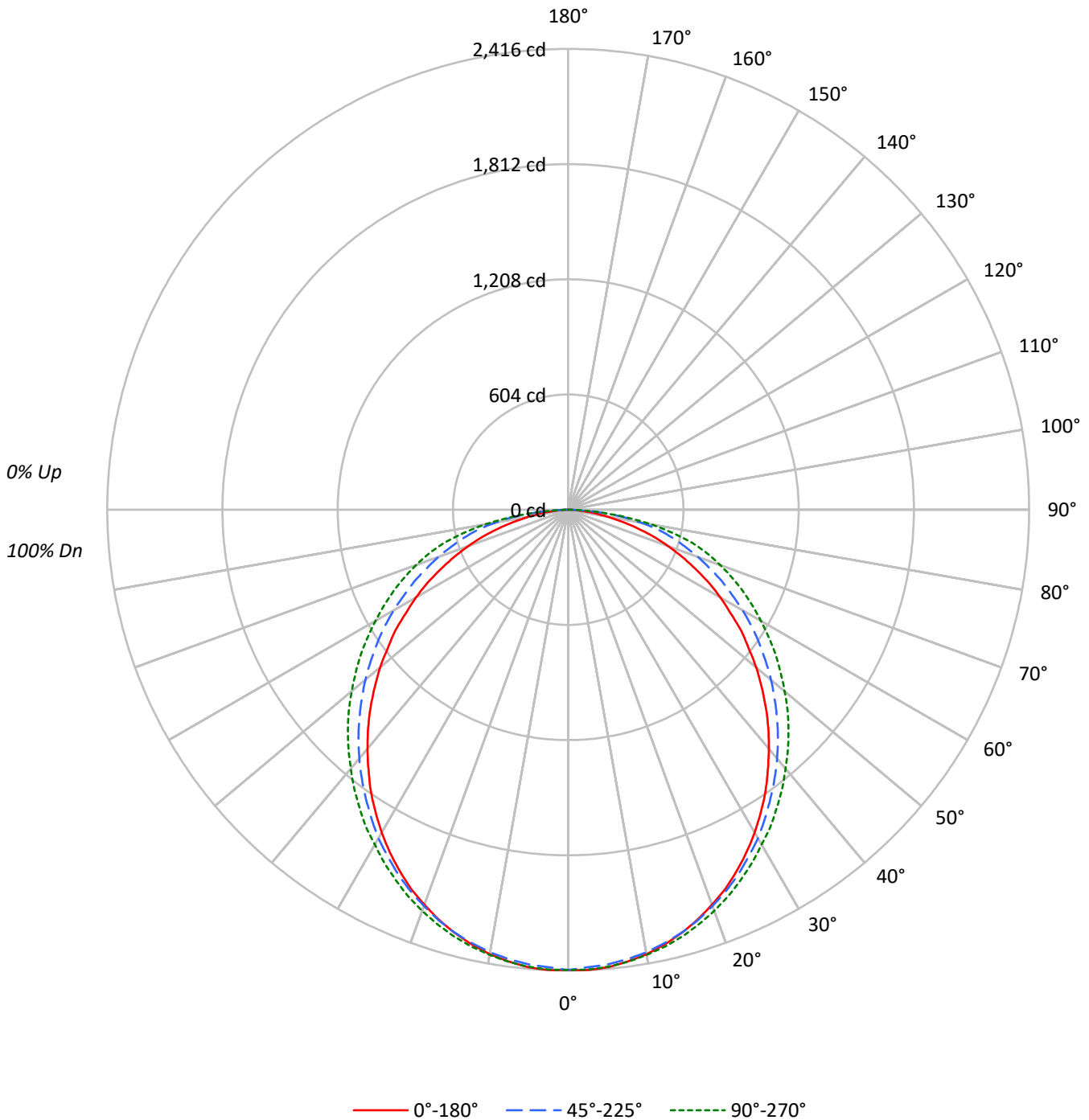
Input Watts (W): 48.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P474026

CATALOG NUMBER: 24CZ2-65HE-S-UNV-L835-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P474026

CATALOG NUMBER: 24CZ2-65HE-S-UNV-L835-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	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	108	103	99	95	105	101	97	93	97	93	90		93	90	87		89	87	85	83
2	98	90	83	77	95	88	81	76	84	79	74		81	76	72		78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62		71	65	61		68	64	59	57
4	82	69	60	54	79	68	60	53	66	58	52		63	57	52		61	55	51	49
5	75	62	53	46	73	61	52	46	59	51	45		57	50	45		55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40		51	44	39		50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35		47	40	35		45	39	34	32
8	60	46	38	32	58	45	37	31	44	37	31		43	36	31		42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26		37	30	25		36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3246	3246	3246
5°	3251	3231	3248
10°	3233	3219	3238
15°	3200	3198	3225
20°	3156	3165	3204
25°	3103	3130	3179
30°	3038	3091	3149
35°	2962	3036	3131
40°	2874	2992	3113
45°	2787	2945	3107
50°	2693	2904	3099
55°	2597	2869	3116
60°	2478	2842	3138
65°	2346	2830	3214
70°	2189	2845	3328
75°	1948	2928	3506
80°	1592	2991	3422
85°	1122	2612	2665



TEST NUMBER: P474026

CATALOG NUMBER: 24CZ2-65HE-S-UNV-L835-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	228.1	3.3
10°-20°	649.7	9.4
20°-30°	973.9	14.1
30°-40°	1159.9	16.8
40°-50°	1196.0	17.3
50°-60°	1091.3	15.8
60°-70°	872.7	12.6
70°-80°	570.0	8.2
80°-90°	171.1	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°	1851.6	26.8
0°-40°	3011.5	43.6
0°-60°	5298.8	76.7
0°-90°	6912.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6912.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2413	2413	2413	2413	2413	
5°	2407	2403	2392	2407	2405	228
15°	2297	2298	2296	2315	2315	648
25°	2090	2094	2108	2139	2141	962
35°	1803	1816	1848	1895	1906	1126
45°	1465	1491	1548	1612	1633	1130
55°	1107	1139	1223	1304	1328	986
65°	737	787	889	976	1009	731
75°	375	437	563	654	674	398
85°	73	131	169	173	173	92
90°	0	0	0	0	0	



TEST NUMBER: P474026

CATALOG NUMBER: 24CZ2-65HE-S-UNV-L835-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2412.8	2412.8	2412.8	2412.8	2412.8
2.5°	2416.2	2412.8	2400.3	2415.1	2412.8
5°	2407.1	2402.6	2392.4	2407.1	2404.9
7.5°	2389.0	2386.7	2376.5	2393.5	2391.2
10°	2366.3	2364.0	2356.0	2373.1	2369.7
12.5°	2334.5	2333.3	2327.6	2348.1	2345.8
15°	2297.0	2298.1	2295.9	2315.2	2315.2
17.5°	2253.8	2252.7	2257.2	2281.1	2278.8
20°	2203.9	2205.0	2210.7	2237.9	2237.9
22.5°	2151.7	2150.5	2163.0	2190.3	2192.5
25°	2090.3	2093.7	2108.5	2139.2	2141.4
27.5°	2024.5	2030.2	2048.3	2083.5	2086.9
30°	1955.2	1962.0	1989.3	2022.2	2026.8
32.5°	1879.1	1893.9	1918.9	1960.9	1972.3
35°	1803.1	1815.6	1848.5	1895.0	1906.4
37.5°	1719.1	1739.5	1777.0	1828.1	1842.8
40°	1636.2	1656.6	1703.2	1756.5	1772.4
42.5°	1552.1	1573.7	1627.1	1687.3	1704.3
45°	1464.7	1490.8	1547.6	1612.3	1632.8
47.5°	1375.0	1405.7	1467.0	1537.4	1560.1
50°	1286.5	1317.1	1387.5	1460.2	1480.6
52.5°	1191.1	1229.7	1304.6	1383.0	1403.4
55°	1107.1	1138.8	1222.9	1303.5	1328.5
57.5°	1008.3	1051.4	1141.1	1222.9	1246.7
60°	920.8	960.6	1056.0	1138.8	1166.1
62.5°	832.3	873.2	968.5	1062.8	1087.7
65°	736.9	786.9	889.0	976.5	1009.4
67.5°	646.1	698.3	802.8	895.9	929.9
70°	556.4	609.7	723.3	818.7	845.9
72.5°	467.8	523.4	641.5	734.6	766.4
75°	374.7	437.1	563.2	654.0	674.4
77.5°	287.3	356.5	483.7	545.0	559.8
80°	205.5	281.6	386.0	430.3	441.7
82.5°	135.1	208.9	288.4	312.2	308.8
85°	72.7	130.6	169.2	172.6	172.6
87.5°	28.4	52.2	53.4	40.9	38.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)