

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: P473953

Luminaire Tested: **24CZ2-145VHE-UNV-L850-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473953
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-145VHE-UNV-L850-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14783.4 lumens
Efficiency: N/A
Efficacy: 140.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

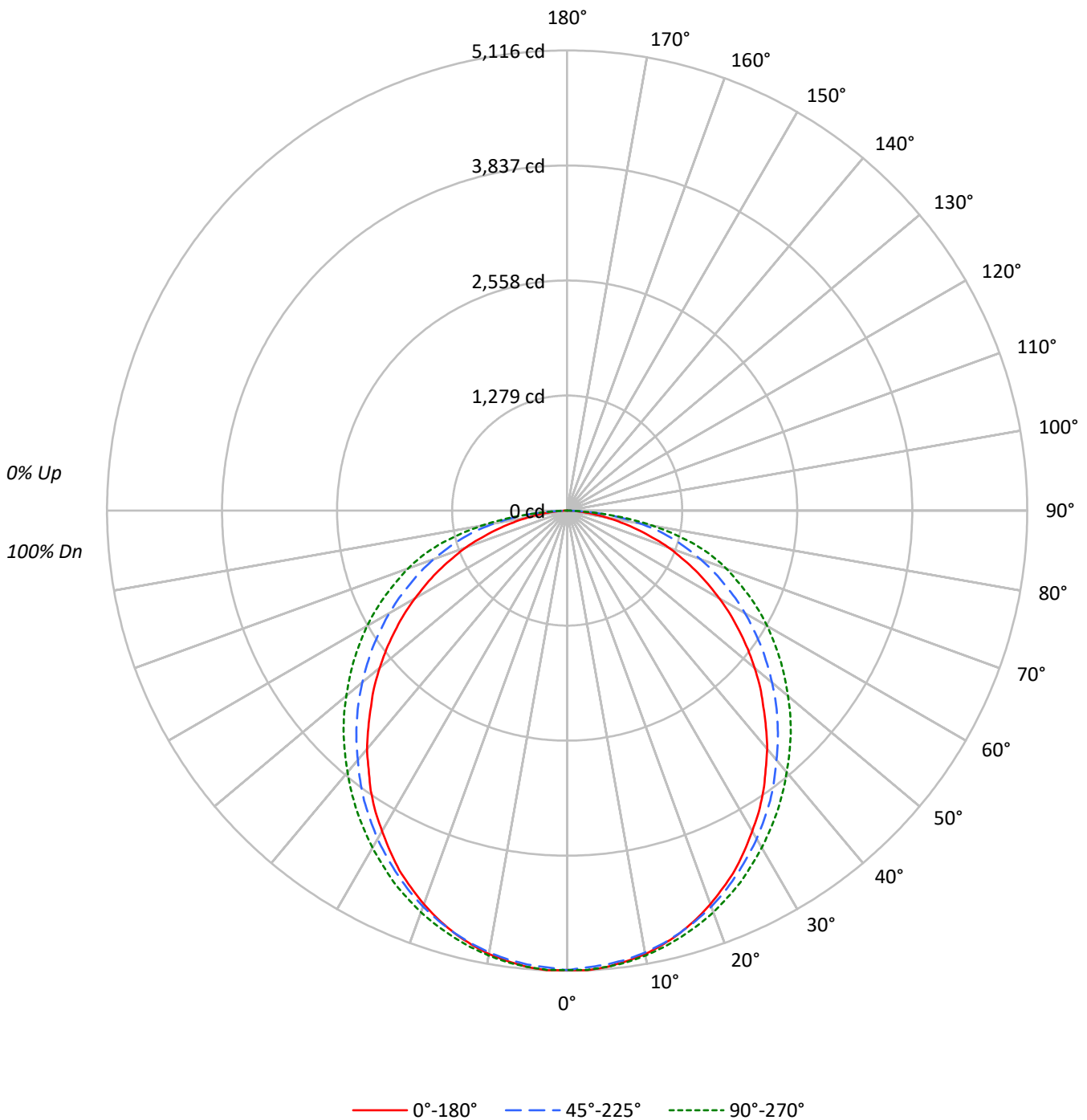
Input Watts (W): 105.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	89	82	76	95	88	81	75	84	78	74		81	76	72		78	74	70	68
3	89	78	70	63	87	77	69	63	74	67	61		71	65	60		68	63	59	57
4	82	69	60	53	79	68	59	53	65	58	52		63	57	51		61	55	51	48
5	75	62	53	46	73	61	52	46	58	51	45		56	50	44		55	49	44	42
6	69	56	46	40	67	55	46	40	53	45	39		51	44	39		49	43	39	37
7	64	50	41	35	62	50	41	35	48	40	35		47	40	35		45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31		43	36	31		41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28		39	33	28		38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25		36	30	25		36	30	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6874	6874	6874
5°	6877	6842	6877
10°	6839	6816	6862
15°	6770	6767	6833
20°	6668	6709	6805
25°	6552	6627	6772
30°	6393	6549	6724
35°	6249	6465	6696
40°	6078	6359	6670
45°	5871	6294	6690
50°	5694	6224	6709
55°	5485	6180	6784
60°	5257	6151	6909
65°	5011	6129	7087
70°	4716	6192	7413
75°	4147	6320	7710
80°	3460	6366	7439
85°	2470	5457	5530



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	482.9	3.3
10°-20°	1375.6	9.3
20°-30°	2063.6	14.0
30°-40°	2463.7	16.7
40°-50°	2551.9	17.3
50°-60°	2349.3	15.9
60°-70°	1895.1	12.8
70°-80°	1238.2	8.4
80°-90°	363.0	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°	3922.1	26.5
0°-40°	6385.8	43.2
0°-60°	11287.1	76.3
0°-90°	14783.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14783.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5109	5109	5109	5109	5109	
5°	5092	5087	5066	5094	5092	483
15°	4860	4860	4858	4906	4906	1369
25°	4414	4423	4464	4545	4562	2029
35°	3805	3838	3936	4043	4077	2377
45°	3086	3162	3308	3456	3516	2385
55°	2338	2438	2634	2828	2892	2093
65°	1574	1681	1925	2145	2226	1556
75°	798	948	1216	1426	1483	851
85°	160	277	354	375	358	198
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5108.6	5108.6	5108.6	5108.6	5108.6
2.5°	5115.8	5108.6	5082.3	5113.4	5111.0
5°	5091.9	5087.1	5065.6	5094.3	5091.9
7.5°	5053.7	5051.3	5034.6	5065.6	5065.6
10°	5005.9	5001.1	4989.2	5025.0	5022.6
12.5°	4939.0	4936.6	4929.5	4972.5	4970.1
15°	4860.2	4860.2	4857.8	4905.6	4905.6
17.5°	4764.7	4767.1	4776.6	4831.6	4833.9
20°	4657.2	4666.8	4685.9	4748.0	4752.7
22.5°	4535.4	4554.5	4580.8	4650.0	4657.2
25°	4413.6	4423.2	4463.8	4545.0	4561.7
27.5°	4265.5	4289.4	4342.0	4425.5	4442.3
30°	4115.1	4148.5	4215.4	4301.4	4327.6
32.5°	3967.0	3995.6	4074.5	4172.4	4203.4
35°	3804.6	3838.0	3935.9	4043.4	4076.8
37.5°	3625.5	3678.0	3780.7	3904.9	3940.7
40°	3460.7	3508.4	3620.7	3759.2	3797.4
42.5°	3272.0	3331.7	3467.8	3608.7	3656.5
45°	3085.7	3162.1	3307.8	3455.9	3515.6
47.5°	2911.4	2973.4	3145.4	3312.6	3365.1
50°	2720.3	2791.9	2973.4	3150.2	3205.1
52.5°	2531.6	2617.6	2801.5	2987.8	3047.5
55°	2338.2	2438.5	2634.3	2827.8	2892.2
57.5°	2151.9	2252.2	2455.2	2660.6	2727.5
60°	1953.6	2061.1	2285.6	2483.8	2567.4
62.5°	1762.6	1870.0	2106.5	2321.4	2400.3
65°	1573.9	1681.4	1925.0	2144.7	2225.9
67.5°	1378.1	1495.1	1755.4	1968.0	2046.8
70°	1198.9	1311.2	1573.9	1800.8	1884.4
72.5°	993.5	1127.3	1394.8	1619.3	1698.1
75°	797.7	948.2	1215.7	1425.8	1483.1
77.5°	616.2	766.6	1034.1	1191.8	1227.6
80°	446.6	599.5	821.6	931.4	960.1
82.5°	289.0	446.6	594.7	668.7	678.3
85°	160.0	277.0	353.5	375.0	358.2
87.5°	57.3	105.1	102.7	83.6	66.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)