

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: P294065

Luminaire Tested: **24GR-LD5-48-A19/156-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P294065
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33308)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-48-A19/156-UNV-L93050-W2A1-U-4000K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (336) 90 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4332.0 lumens
Efficiency: N/A
Efficacy: 128.6 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.25
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

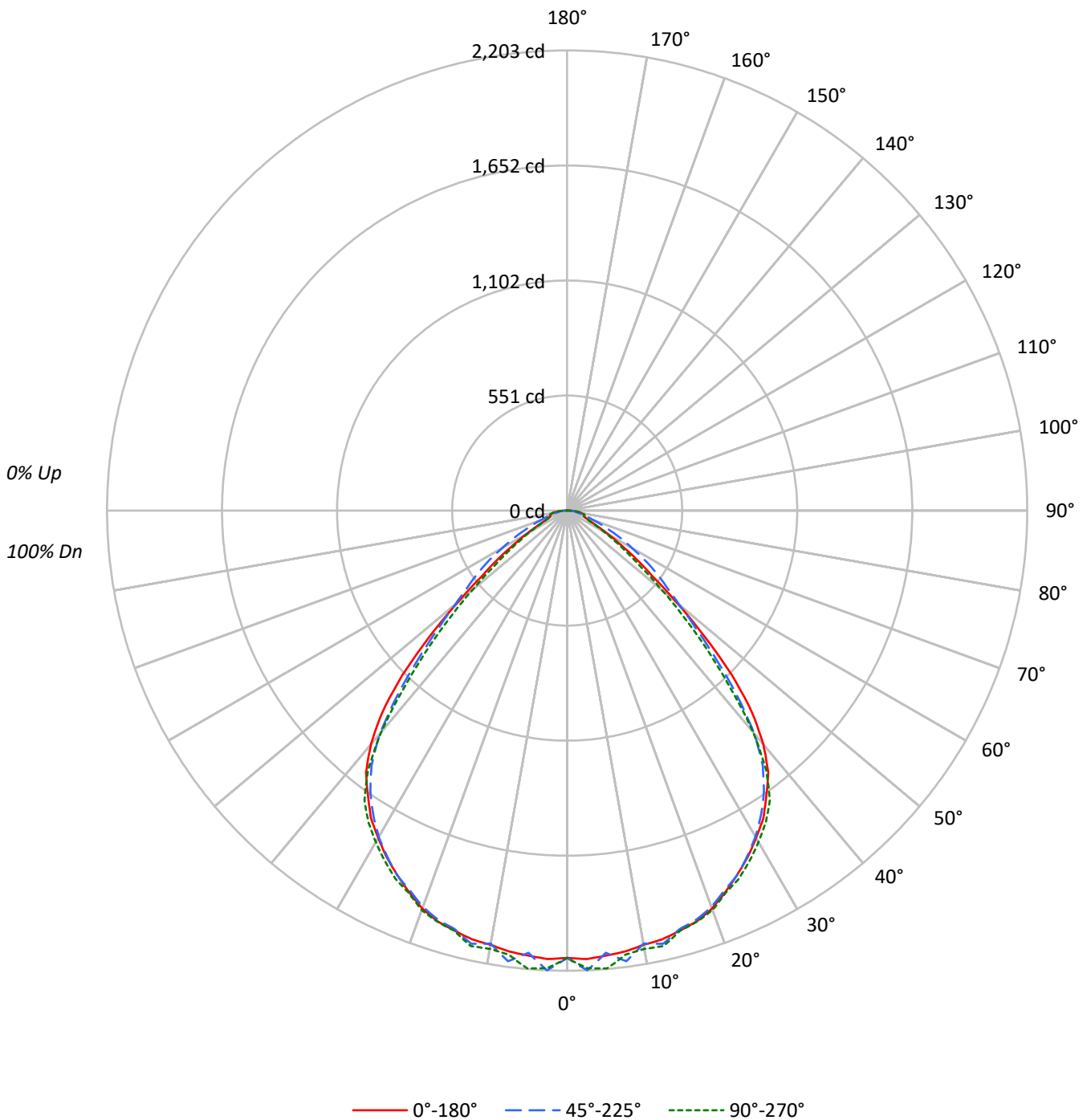
Input Watts (W): 33.682554
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77					77			
3	95	86	79	74	93	85	78	73	82	77	72	79	75	71	77	73	70	68					68			
4	88	78	71	65	86	77	70	64	74	68	64	72	67	63	70	66	62	60					60			
5	82	71	63	57	80	70	62	57	68	61	56	66	60	56	64	59	55	53					53			
6	76	65	57	51	75	64	56	51	62	55	50	60	55	50	59	54	50	48					48			
7	71	59	51	46	70	58	51	46	57	50	45	56	50	45	54	49	45	43					43			
8	67	55	47	42	65	54	47	41	53	46	41	51	45	41	50	45	41	39					39			
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36					36			
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34	33					33			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2882	2882	2882
5°	2888	2870	2971
10°	2884	2875	2910
15°	2900	2891	2902
20°	2903	2891	2915
25°	2858	2860	2888
30°	2810	2802	2847
35°	2731	2698	2779
40°	2565	2450	2436
45°	2126	1923	1824
50°	1430	1459	1247
55°	943	1224	818
60°	605	966	560
65°	390	738	379
70°	345	528	345
75°	445	420	449
80°	545	361	571
85°	633	537	665



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.1	4.7
10°-20°	588.9	13.6
20°-30°	886.6	20.5
30°-40°	1027.6	23.7
40°-50°	802.7	18.5
50°-60°	428.6	9.9
60°-70°	220.4	5.1
70°-80°	124.7	2.9
80°-90°	47.4	1.1
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°	1680.6	38.8
0°-40°	2708.2	62.5
0°-60°	3939.5	90.9
0°-90°	4332.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4332.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2142	2142	2142	2142	2142	
5°	2139	2198	2125	2183	2200	203
15°	2082	2095	2075	2088	2084	588
25°	1925	1919	1926	1924	1945	887
35°	1663	1655	1642	1675	1692	1037
45°	1117	1118	1011	1002	959	842
55°	402	509	522	470	348	371
65°	122	255	232	255	119	135
75°	86	161	81	150	86	87
85°	41	54	35	54	43	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2142.0	2142.0	2142.0	2142.0	2142.0
2.5°	2149.0	2188.0	2203.3	2184.5	2192.8
5°	2138.6	2198.4	2124.7	2183.1	2199.8
7.5°	2128.8	2122.6	2176.1	2120.5	2144.1
10°	2110.7	2114.9	2104.5	2144.1	2130.2
12.5°	2102.4	2126.7	2124.7	2104.5	2135.1
15°	2082.2	2095.4	2075.3	2088.5	2083.6
17.5°	2062.0	2055.8	2053.7	2059.3	2064.1
20°	2027.3	2006.4	2018.9	2020.3	2035.6
22.5°	1977.2	1964.6	1967.4	1980.0	1981.3
25°	1925.0	1918.7	1926.4	1923.6	1945.2
27.5°	1870.7	1862.4	1867.2	1877.7	1890.9
30°	1808.8	1806.7	1803.2	1812.3	1832.5
32.5°	1747.6	1730.9	1728.1	1746.9	1769.9
35°	1662.7	1655.1	1642.5	1675.2	1691.9
37.5°	1582.0	1558.4	1538.2	1557.7	1564.6
40°	1460.3	1442.2	1394.9	1397.0	1387.2
42.5°	1310.7	1297.5	1207.0	1191.0	1163.9
45°	1117.3	1118.0	1010.8	1001.8	958.7
47.5°	892.6	932.2	839.0	828.6	764.6
50°	683.2	754.8	697.1	680.4	595.5
52.5°	512.7	617.8	599.7	563.5	446.6
55°	402.1	508.6	521.8	470.3	348.5
57.5°	302.6	418.8	440.4	397.9	269.2
60°	224.7	352.7	359.0	342.3	208.0
62.5°	167.0	299.8	291.5	293.6	154.4
65°	122.4	255.3	231.7	254.6	119.0
67.5°	100.2	221.2	180.2	220.5	96.7
70°	87.7	196.2	134.3	194.1	87.7
72.5°	84.9	180.2	106.4	172.5	85.6
75°	85.6	160.7	80.7	150.3	86.3
77.5°	78.6	132.2	61.2	128.0	82.1
80°	70.3	100.2	46.6	101.6	73.7
82.5°	59.8	73.0	37.6	75.1	61.9
85°	41.0	53.6	34.8	53.6	43.1
87.5°	19.5	32.0	21.6	30.6	22.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)