

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: P476259

Luminaire Tested: **14GR-LD5-20-A19/156-UNV-L840-CD1-U**

Issue Date: 02/10/2021



Test Information

Test Method: LM-79-08
Report Number: P476259
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14GR-LD5-20-A19/156-UNV-L840-CD1-U
Description: GR 1'X4' LED TROFFER w/ A19/156 LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

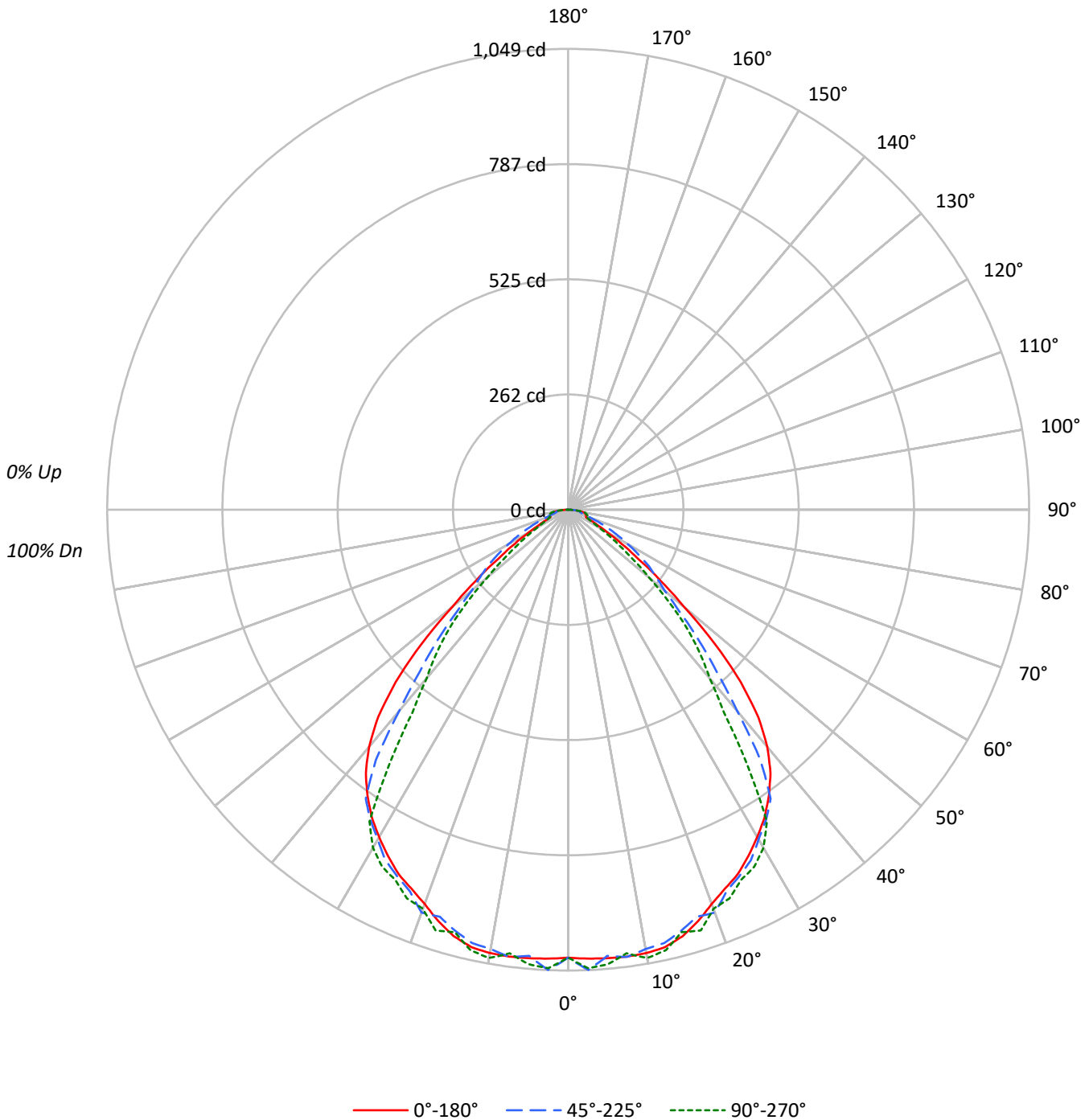
Lumens per Lamp: N/A
Luminaire Lumens: 1989.7 lumens
Efficiency: N/A
Efficacy: 124.4 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.2
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 16
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: P476259

CATALOG NUMBER: 14GR-LD5-20-A19/156-UNV-L840-CD1-U

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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	91	86	101	94	89	85	91	87	83	88	84	81	85	82	79	78
3	96	87	80	75	93	85	79	74	82	77	73	80	75	71	77	74	70	68
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61
5	83	71	64	58	81	70	63	58	68	62	57	67	61	57	65	60	56	54
6	77	65	58	52	75	64	57	52	63	56	51	61	55	51	60	55	51	49
7	72	60	52	47	70	59	52	47	58	51	46	56	50	46	55	50	46	44
8	67	55	48	42	66	55	47	42	53	47	42	52	46	42	51	46	42	40
9	63	51	44	39	62	51	43	39	49	43	38	48	43	38	48	42	38	36
10	60	47	40	35	58	47	40	35	46	40	35	45	39	35	44	39	35	33

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2744	2744	2744
5°	2769	2754	2805
10°	2801	2775	2832
15°	2800	2765	2774
20°	2735	2795	2768
25°	2715	2734	2762
30°	2673	2693	2761
35°	2614	2638	2340
40°	2477	2100	1760
45°	2112	1601	1459
50°	1443	1199	1007
55°	909	1050	669
60°	549	841	432
65°	345	650	332
70°	344	434	352
75°	434	346	454
80°	566	420	597
85°	546	577	577



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.4	4.9
10°-20°	282.0	14.2
20°-30°	425.6	21.4
30°-40°	474.7	23.9
40°-50°	345.2	17.3
50°-60°	189.3	9.5
60°-70°	96.3	4.8
70°-80°	56.6	2.8
80°-90°	21.8	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°	805.9	40.5
0°-40°	1280.6	64.4
0°-60°	1815.0	91.2
0°-90°	1989.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1989.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1020	1020	1020	1020	1020	
5°	1025	1047	1020	1038	1038	98
15°	1005	1001	993	1013	996	282
25°	914	914	921	938	930	420
35°	796	795	803	749	712	495
45°	555	512	421	391	383	417
55°	194	240	224	200	143	183
65°	54	116	102	105	52	60
75°	42	74	33	67	44	43
85°	18	23	19	24	19	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1019.7	1019.7	1019.7	1019.7	1019.7
2.5°	1022.8	1043.6	1048.8	1048.8	1044.7
5°	1024.9	1046.7	1019.7	1038.4	1038.4
7.5°	1025.9	1029.0	1027.0	1031.1	1018.6
10°	1024.9	1017.6	1015.5	1041.5	1036.3
12.5°	1019.7	991.5	1010.3	1002.0	1027.0
15°	1005.1	1000.9	992.6	1013.4	995.7
17.5°	982.2	984.3	971.8	982.2	1004.0
20°	955.1	964.5	975.9	979.0	966.5
22.5°	933.2	936.3	940.5	950.9	958.2
25°	914.5	914.5	920.7	938.4	930.1
27.5°	888.4	890.5	899.9	905.1	916.6
30°	860.3	862.4	866.6	890.5	888.4
32.5°	831.1	833.2	837.4	853.0	841.6
35°	795.7	794.7	803.0	748.9	712.4
37.5°	756.2	755.1	718.7	616.6	582.2
40°	705.1	701.0	597.8	517.6	501.0
42.5°	640.5	622.8	499.9	453.1	444.7
45°	555.1	512.4	420.8	390.6	383.3
47.5°	454.1	421.8	342.7	329.1	311.4
50°	344.7	346.8	286.4	277.0	240.6
52.5°	263.5	288.5	252.1	234.3	186.4
55°	193.7	239.6	223.9	200.0	142.7
57.5°	143.7	198.9	189.6	171.9	109.4
60°	102.1	165.6	156.2	147.9	80.2
62.5°	73.9	138.5	128.1	125.0	61.5
65°	54.2	115.6	102.1	105.2	52.1
67.5°	43.7	96.9	77.1	91.7	44.8
70°	43.7	86.4	55.2	81.2	44.8
72.5°	43.7	81.2	43.7	73.9	46.9
75°	41.7	73.9	33.3	66.7	43.7
77.5°	38.5	60.4	28.1	57.3	41.7
80°	36.5	44.8	27.1	44.8	38.5
82.5°	28.1	31.2	25.0	33.3	30.2
85°	17.7	22.9	18.7	24.0	18.7
87.5°	8.3	12.5	8.3	12.5	8.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)