

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: FAIL-SAFE

Report Number: 766705

Luminaire Tested: **QDEW-26xxxx**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: 766705
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: QDEW-26xxxx
Description: FAIL-SAFE WHITE 9 x 9
Light Source: #043, #044 - (2) PHILIPS PL-C 10mm/13W/27 1800 LUMENS
TOTAL INPUT WATTS = 37.0 AT 120 VOLTS
Ballast/Driver: TWO ROBERTSON #SP2

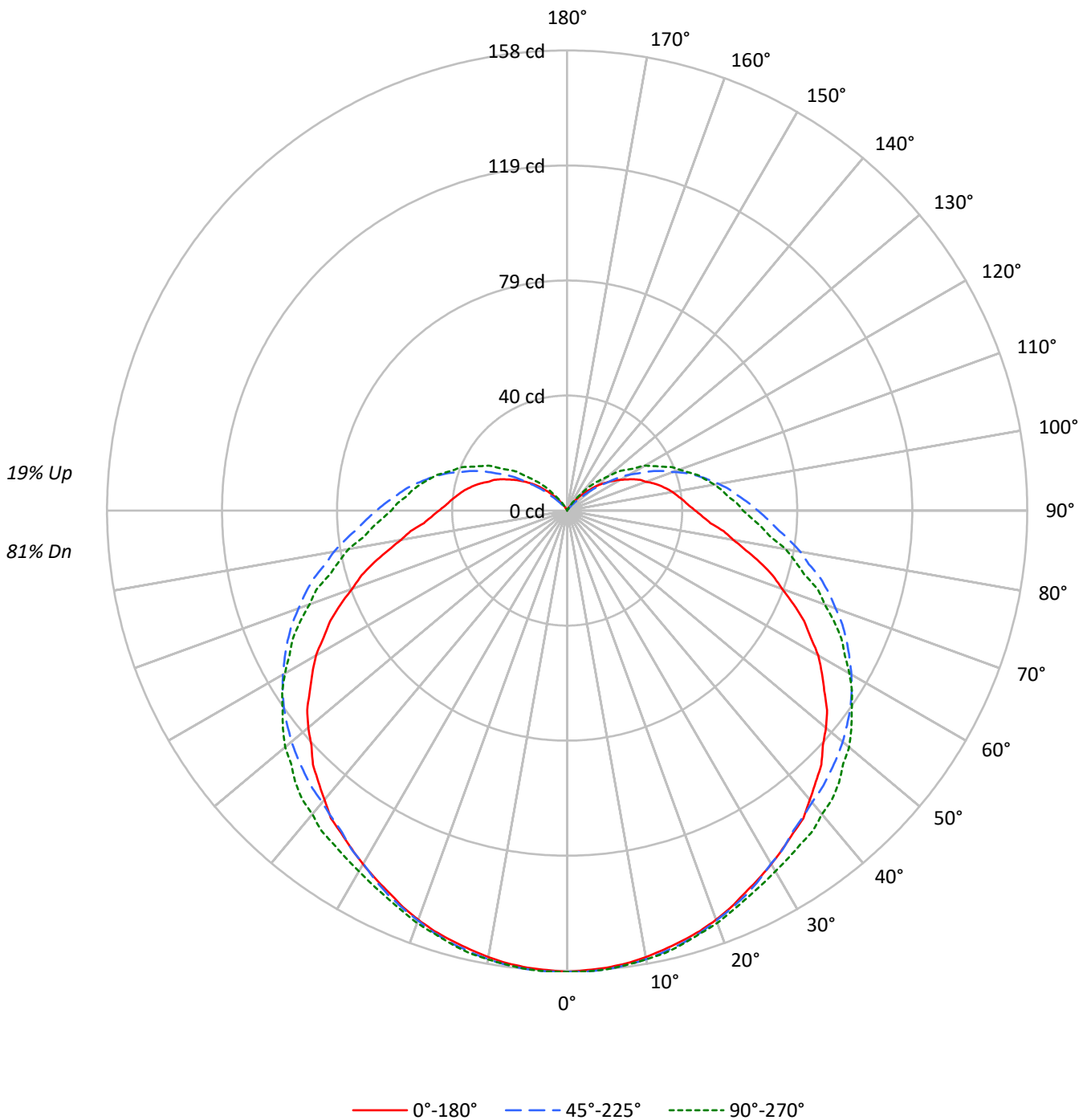
Summary

Lumens per Lamp: 900 (2 lamps)
Luminaire Lumens: 835.7 lumens
Efficiency: 46.4%
Efficacy: 32.1 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 1.36 / 1.53
Luminous Opening: Point Source (0' x 0' x 0')
CIE Type: Semi-Direct

Input Watts (W): 26
Input Voltage (V): NR
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: 766705
CATALOG NUMBER: QDEW-26xxxx

Luminous Intensity Polar Plot





TEST NUMBER: 766705
 CATALOG NUMBER: QDEW-26xxxx

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	53	53	53	53	51	51	51	51	47	47	47	43	43	43	39	39	39	38
1	47	44	41	39	44	42	39	37	38	36	34	35	33	32	32	30	29	28
2	42	37	33	30	40	35	32	29	32	29	27	29	27	25	27	25	23	22
3	38	32	28	24	36	31	27	23	28	25	22	25	23	20	23	21	19	17
4	34	28	24	20	32	27	23	19	24	21	18	22	19	17	20	18	16	14
5	31	25	20	17	30	24	20	16	22	18	15	20	17	14	18	16	13	12
6	29	22	18	15	27	21	17	14	19	16	13	18	15	12	16	14	12	10
7	27	20	16	13	25	19	15	12	18	14	12	16	13	11	15	12	10	9
8	25	18	14	11	23	17	14	11	16	13	10	15	12	10	14	11	9	8
9	23	17	13	10	22	16	12	10	15	11	9	14	11	9	12	10	8	7
10	21	15	11	9	20	15	11	9	14	10	8	13	10	8	12	9	7	6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	Luminaire represents a point source (luminous area is zero).		
5°	No luminance values can be calculated.		
10°			
15°			
20°			
25°			
30°			
35°			
40°			
45°			
50°			
55°			
60°			
65°			
70°			
75°			
80°			
85°			



TEST NUMBER: 766705
 CATALOG NUMBER: QDEW-26xxxx

ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	15.0	1.8	0.8	0°	158	158	158	158	158	
10°-20°	43.4	5.2	2.4	5°	158	158	158	158	158	15
20°-30°	67.2	8.0	3.7	15°	153	153	154	154	154	43
30°-40°	85.6	10.2	4.8	25°	145	145	146	146	147	67
40°-50°	98.4	11.8	5.5	35°	135	134	135	138	140	85
50°-60°	103.7	12.4	5.8	45°	123	124	128	131	132	95
60°-70°	100.5	12.0	5.6	55°	108	111	119	120	119	97
70°-80°	89.0	10.7	4.9	65°	90	97	106	106	104	89
80°-90°	73.1	8.8	4.1	75°	68	81	90	90	84	72
90°-100°	59.0	7.1	3.3	85°	49	63	72	73	67	42
100°-110°	45.0	5.4	2.5	90°	44	56	66	66	60	24
110°-120°	30.2	3.6	1.7	95°	40	50	59	60	55	32
120°-130°	16.8	2.0	0.9	105°	33	38	46	47	47	35
130°-140°	6.7	0.8	0.4	115°	25	26	32	34	36	25
140°-150°	1.5	0.2	0.1	125°	17	15	17	21	24	15
150°-160°	0.2	0.0	0.0	135°	9	7	5	10	13	7
160°-170°	0.1	0.0	0.0	145°	2	2	1	2	4	2
170°-180°	0.0	0.0	0.0	155°	0	0	0	0	0	0
0°-30°	125.7	15.0	7.0	165°	0	0	0	0	0	0
0°-40°	211.3	25.3	11.7	175°	0	0	0	0	0	0
0°-60°	413.5	49.5	23.0	180°	0	0	0	0	0	0
0°-90°	676.1	80.9	37.6							
90°-120°	134.3	16.1	7.5							
90°-150°	159.3	19.1	8.8							
90°-180°	160.0	19.1	8.9							
0°-180°	835.7	100.0	46.4							



TEST NUMBER: 766705
 CATALOG NUMBER: QDEW-26xxxx

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	158.4	158.4	158.4	158.4	158.4
2.5°	157.9	158.4	158.4	158.4	158.4
5°	157.5	157.8	158.1	158.1	158.1
7.5°	156.8	157.2	157.4	157.5	157.3
10°	155.7	156.4	156.4	156.5	156.5
12.5°	154.3	154.8	155.1	155.4	155.6
15°	152.9	153.3	153.7	154.0	154.0
17.5°	151.4	151.7	152.0	152.3	152.2
20°	149.5	149.4	149.8	150.1	150.7
22.5°	147.3	147.2	147.7	148.6	148.6
25°	144.7	145.4	145.5	146.3	146.6
27.5°	142.5	142.2	142.9	143.9	144.8
30°	140.2	140.0	140.0	142.1	143.0
32.5°	137.7	137.8	137.9	140.1	141.4
35°	135.2	134.4	134.8	137.9	139.8
37.5°	133.2	132.6	132.8	136.7	138.6
40°	129.6	130.0	130.8	134.5	136.1
42.5°	126.4	127.0	129.4	132.5	134.6
45°	123.4	124.4	127.5	130.6	132.0
47.5°	119.1	121.4	125.6	127.8	128.6
50°	116.0	118.0	123.5	125.0	126.4
52.5°	112.5	114.8	121.1	122.7	123.0
55°	107.8	110.9	118.7	119.8	119.3
57.5°	103.7	108.2	115.8	116.1	116.0
60°	99.6	104.8	112.7	113.5	111.9
62.5°	94.2	100.5	109.3	109.9	107.5
65°	89.8	97.4	105.9	106.0	103.9
67.5°	84.2	93.9	102.3	102.9	99.2
70°	78.5	89.0	98.1	98.7	94.1
72.5°	74.0	84.8	94.2	94.3	90.3
75°	68.5	80.6	90.1	90.1	84.2
77.5°	62.8	75.5	85.0	86.0	80.1
80°	57.9	71.5	81.3	81.2	76.2
82.5°	54.2	67.1	76.8	77.1	70.6
85°	49.4	62.7	72.4	73.3	67.2
87.5°	46.5	59.5	68.9	69.2	63.5
90°	44.0	55.9	65.5	65.6	60.4
92.5°	41.7	52.6	62.2	62.9	58.3
95°	40.1	49.8	58.9	59.6	55.4
97.5°	38.3	46.4	56.1	56.5	53.6
100°	36.8	43.9	52.8	53.5	51.3
102.5°	34.9	40.6	49.5	50.0	48.8
105°	33.1	37.5	46.2	47.0	46.7
107.5°	31.1	34.6	42.8	43.5	43.6
110°	28.8	31.3	38.7	40.0	41.1



TEST NUMBER: 766705
 CATALOG NUMBER: QDEW-26xxxx

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	27.4	28.3	35.5	37.1	39.0
115°	25.4	25.7	32.0	33.8	35.6
117.5°	23.1	22.4	27.6	30.1	33.1
120°	21.1	19.6	24.6	27.3	30.8
122.5°	19.1	17.5	21.4	24.3	26.8
125°	17.0	14.8	16.7	20.9	24.3
127.5°	15.0	12.6	13.9	18.4	22.0
130°	13.1	10.9	11.0	15.7	18.1
132.5°	10.7	9.0	7.6	12.6	15.6
135°	8.9	6.8	5.2	10.3	13.2
137.5°	7.0	5.3	3.5	8.2	10.9
140°	5.4	4.1	2.1	5.5	7.5
142.5°	3.8	2.9	1.0	3.8	5.7
145°	2.5	1.5	0.8	2.5	3.9
147.5°	1.6	0.9	0.8	1.3	2.0
150°	0.9	0.7	0.6	0.6	1.1
152.5°	0.7	0.5	0.6	0.6	0.7
155°	0.5	0.4	0.5	0.5	0.5
157.5°	0.4	0.4	0.5	0.4	0.5
160°	0.4	0.4	0.4	0.4	0.5
162.5°	0.4	0.4	0.4	0.3	0.4
165°	0.4	0.4	0.3	0.3	0.2
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)