

Scaled data based on original data using
LM-66-11 Electrical and Photometric Measurements of Single-Ended Compact
Fluorescent Lamps

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: SHAPER

Report Number: 253P174

Luminaire Tested: **1240-OB-26-CFL/3/27**

Issue Date: 3/3/2020

Test Information

Test Method: LM-66-11
Report Number: 253P174
Test Lab: METALUX LABORATORIES
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 1240-OB-26-CFL/3/27
Description: SHAPER 26 INCH 1240 SERIES DIRECT/INDIRECT INDOOR PENDANT FIXTURE
Light Source: THREE - FT24DL - 1800 LUMENS - 24 WATTS
THREE GX24 T4 COMPACT FLUORESCENT LAMPS
Ballast/Driver: SWB-26-2-120

Summary

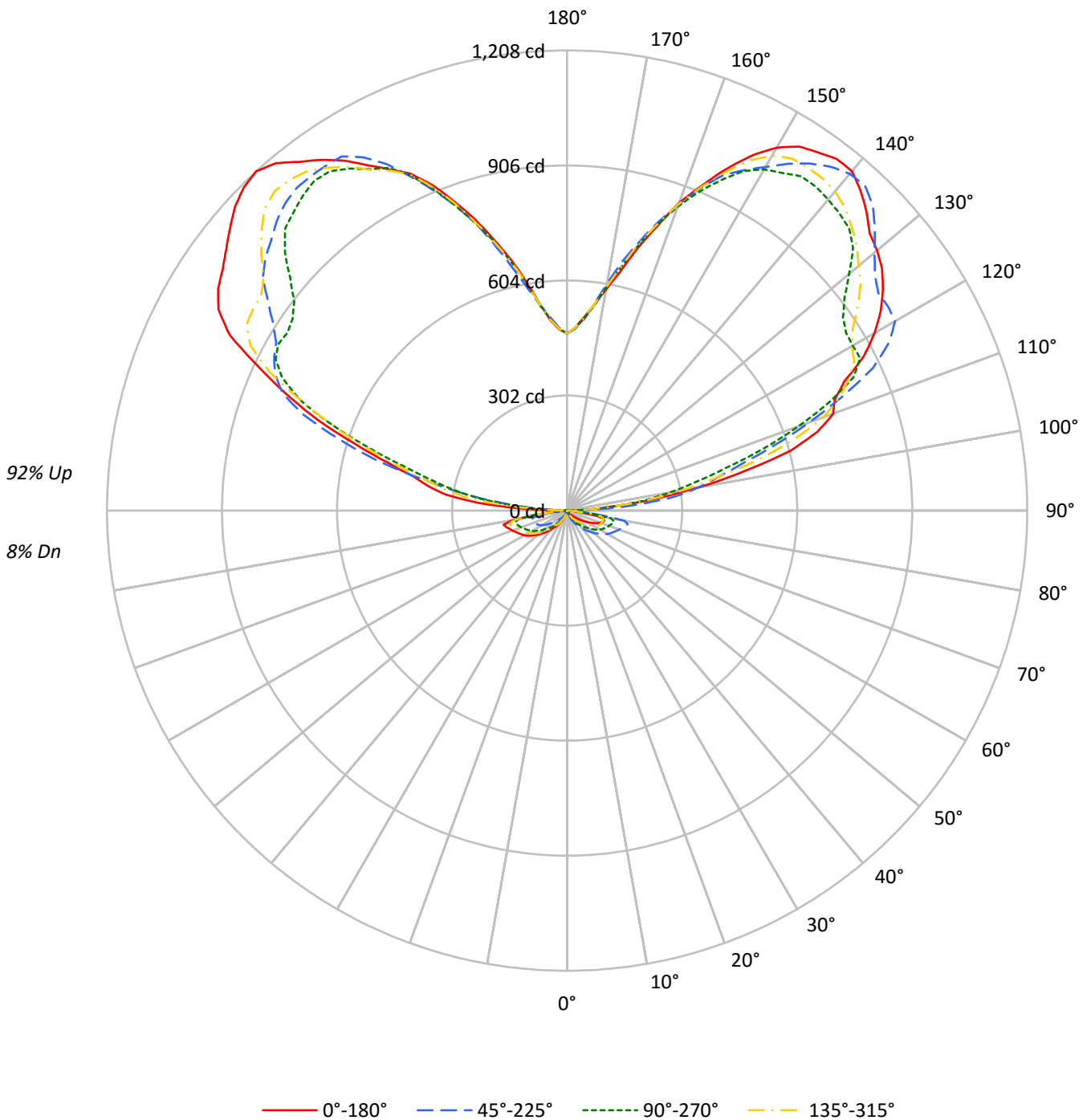
Lumens per Lamp: 1800 (3 lamps)
Luminaire Lumens: 5064.0 lumens
Efficiency: 93.8%
Efficacy: 194.8 lumens/watt
Spacing Criteria (0/90/45): 8.72 / 8.65 / 7.51
Luminous Opening: Circular (Dia: 2.17' x H: 0')
CIE Type: Indirect

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: 253P174

CATALOG NUMBER: 1240-OB-26-CFL/3/27

Luminous Intensity Polar Plot





TEST NUMBER: 253P174

CATALOG NUMBER: 1240-OB-26-CFL/3/27

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	91	91	91	91	79	79	79	79	57	57	57	36	36	36	17	17	17	8
1	82	78	75	71	71	68	65	62	48	46	45	30	29	28	14	13	13	5
2	74	68	62	57	64	58	54	50	42	38	36	26	24	23	11	11	10	3
3	67	59	52	47	58	51	45	41	36	32	29	22	20	18	10	9	8	2
4	61	52	44	39	53	45	39	34	32	28	25	20	17	15	8	7	6	2
5	56	46	38	33	48	39	33	29	28	24	21	17	15	13	7	6	5	1
6	51	40	33	28	44	35	29	24	25	21	18	15	13	11	6	5	4	1
7	47	36	29	24	41	31	25	21	22	18	15	14	11	9	6	5	4	1
8	43	32	26	21	37	28	22	18	20	16	13	12	10	8	5	4	3	1
9	40	29	23	18	35	26	20	16	18	14	11	11	9	7	5	4	3	0
10	37	27	20	16	32	23	18	14	17	13	10	10	8	6	4	3	2	0

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	9	9	9	9
5°	6	9	6	6
10°	6	3	6	3
15°	3	3	3	6
20°	12	9	16	12
25°	13	58	90	64
30°	24	84	128	94
35°	53	128	178	135
40°	57	175	244	194
45°	78	244	334	264
50°	127	322	445	345
55°	214	443	585	463
60°	344	578	759	631
65°	539	753	974	815
70°	794	999	1306	1093
75°	1139	1399	1872	1557
80°	1311	1967	2455	2202
85°	33	201	0	670



TEST NUMBER: 253P174

CATALOG NUMBER: 1240-OB-26-CFL/3/27

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	0.2	0.0	0.0
10°-20°	0.7	0.0	0.0
20°-30°	7.8	0.2	0.1
30°-40°	22.2	0.4	0.4
40°-50°	44.3	0.9	0.8
50°-60°	76.3	1.5	1.4
60°-70°	109.7	2.2	2.0
70°-80°	132.1	2.6	2.4
80°-90°	36.1	0.7	0.7
90°-100°	165.1	3.3	3.1
100°-110°	526.0	10.4	9.7
110°-120°	826.1	16.3	15.3
120°-130°	872.8	17.2	16.2
130°-140°	843.5	16.7	15.6
140°-150°	691.4	13.7	12.8
150°-160°	449.6	8.9	8.3
160°-170°	209.1	4.1	3.9
170°-180°	51.1	1.0	0.9
0°-30°	8.6	0.2	0.2
0°-40°	30.8	0.6	0.6
0°-60°	151.4	3.0	2.8
0°-90°	429.3	8.5	7.9
90°-120°	1517.2	30.0	28.1
90°-150°	3924.9	77.5	72.7
90°-180°	4635.0	91.5	85.8
0°-180°	5064.0	100.0	93.8

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3	3	3	3	3	
5°	2	3	2	2	2	0
15°	1	1	1	2	1	1
25°	4	18	28	20	4	2
35°	15	36	50	38	15	8
45°	19	59	81	64	19	16
55°	42	87	115	91	42	39
65°	78	109	141	118	78	77
75°	101	124	166	138	101	101
85°	1	6	0	20	1	20
90°	4	0	13	1	4	6
95°	112	117	234	124	112	144
105°	607	430	489	436	607	612
115°	803	830	894	825	803	812
125°	1012	884	1104	880	1012	902
135°	1111	1047	1200	1047	1111	859
145°	1148	1071	1124	1087	1148	719
155°	990	957	976	970	990	460
165°	712	720	733	727	712	206
175°	509	505	501	505	509	51
180°	465	465	465	465	465	



TEST NUMBER: 253P174

CATALOG NUMBER: 1240-OB-26-CFL/3/27

CANDELA DISTRIBUTION (FULL):

	0°	20°	30°	40°	60°	80°	90°	100°	120°	140°	150°
0°	3	3	3	3	3	3	3	3	3	3	3
2.5°	2	1	1	2	0	0	0	1	2	1	1
5°	2	1	2	0	2	2	3	1	2	1	2
7.5°	1	2	2	2	1	1	3	1	1	2	2
10°	2	2	1	3	2	3	1	1	2	2	1
12.5°	1	1	0	2	1	2	1	2	1	1	0
15°	1	0	2	1	1	1	1	1	1	0	2
17.5°	3	2	4	4	3	2	7	3	3	2	4
20°	4	3	4	5	5	6	3	6	4	3	4
22.5°	3	1	14	19	19	17	12	1	3	1	14
25°	4	13	20	24	28	22	18	13	4	13	20
27.5°	8	19	23	28	31	28	21	16	8	19	23
30°	7	21	28	34	38	34	25	19	7	21	28
32.5°	5	27	35	40	45	40	30	23	5	27	35
35°	15	29	38	45	50	44	36	26	15	29	38
37.5°	18	32	43	51	56	50	42	29	18	32	43
40°	15	38	51	58	64	56	46	34	15	38	51
42.5°	17	45	57	66	72	63	53	41	17	45	57
45°	19	50	64	73	81	70	59	46	19	50	64
47.5°	23	54	69	81	89	78	66	51	23	54	69
50°	28	60	76	89	98	86	71	56	28	60	76
52.5°	34	69	85	96	106	93	79	62	34	69	85
55°	42	76	91	104	115	100	87	70	42	76	91
57.5°	51	83	100	113	123	109	93	76	51	83	100
60°	59	90	108	120	130	115	99	83	59	90	108
62.5°	68	94	112	127	135	121	105	87	68	94	112
65°	78	96	118	131	141	126	109	89	78	96	118
67.5°	86	97	123	138	146	131	114	91	86	97	123
70°	93	96	128	143	153	137	117	92	93	96	128
72.5°	98	96	133	149	159	142	121	92	98	96	133
75°	101	98	138	155	166	147	124	94	101	98	138
77.5°	98	97	138	160	171	150	125	92	98	97	138
80°	78	95	131	153	146	137	117	85	78	95	131
82.5°	32	65	85	86	71	74	68	53	32	65	85
85°	1	18	20	10	0	3	6	6	1	18	20
87.5°	0	0	0	0	1	4	3	0	0	0	0
90°	4	1	1	5	13	2	0	0	4	1	1
92.5°	35	35	42	76	110	49	35	33	35	35	42
95°	112	117	124	176	234	147	117	110	112	117	124
97.5°	224	209	222	276	321	250	206	199	224	209	222
100°	350	294	292	342	370	314	272	284	350	294	292
102.5°	476	380	360	403	412	380	345	377	476	380	360
105°	607	494	436	470	489	453	430	499	607	494	436
107.5°	689	605	544	566	585	547	540	613	689	605	544
110°	743	706	656	668	698	642	645	736	743	706	656



TEST NUMBER: 253P174

CATALOG NUMBER: 1240-OB-26-CFL/3/27

CANDELA DISTRIBUTION (continued):

	0°	20°	30°	40°	60°	80°	90°	100°	120°	140°	150°
112.5°	760	779	759	776	797	743	746	826	760	779	759
115°	803	818	825	883	894	851	830	859	803	818	825
117.5°	878	840	863	936	999	916	867	864	878	840	863
120°	932	839	875	973	1057	944	866	865	932	839	875
122.5°	976	860	870	969	1086	944	868	895	976	860	870
125°	1012	903	880	961	1104	940	884	941	1012	903	880
127.5°	1042	947	903	981	1128	963	918	995	1042	947	903
130°	1062	978	949	1019	1155	1012	966	1024	1062	978	949
132.5°	1077	1015	1005	1067	1182	1057	1018	1045	1077	1015	1005
135°	1111	1037	1047	1112	1200	1096	1047	1066	1111	1037	1047
137.5°	1140	1058	1063	1140	1208	1113	1058	1080	1140	1058	1063
140°	1163	1071	1079	1142	1190	1114	1066	1086	1163	1071	1079
142.5°	1163	1079	1091	1132	1154	1112	1072	1087	1163	1079	1091
145°	1148	1084	1087	1108	1124	1090	1071	1091	1148	1084	1087
147.5°	1133	1084	1064	1076	1089	1064	1051	1092	1133	1084	1064
150°	1100	1068	1035	1039	1047	1028	1034	1061	1100	1068	1035
152.5°	1051	1030	1014	1007	1009	1005	1005	1016	1051	1030	1014
155°	990	976	970	971	976	972	957	958	990	976	970
157.5°	923	918	912	913	925	915	906	902	923	918	912
160°	859	855	849	853	862	854	848	846	859	855	849
162.5°	781	791	787	791	800	787	787	788	781	791	787
165°	712	728	727	729	733	723	720	716	712	728	727
167.5°	641	660	663	669	672	661	654	650	641	660	663
170°	589	599	602	604	606	601	596	592	589	599	602
172.5°	545	546	543	546	545	544	542	544	545	546	543
175°	509	507	505	504	501	504	505	509	509	507	505
177.5°	480	480	478	478	476	478	479	480	480	480	478
180°	465	465	465	465	465	465	465	465	465	465	465



TEST NUMBER: 253P174

CATALOG NUMBER: 1240-OB-26-CFL/3/27

CANDELA DISTRIBUTION (continued):

	160°	180°	200°	210°	220°	240°	260°	270°	280°	300°	320°
0°	3	3	3	3	3	3	3	3	3	3	3
2.5°	2	0	0	0	1	2	1	1	2	0	0
5°	0	2	2	3	1	2	1	2	0	2	2
7.5°	2	1	1	3	1	1	2	2	2	1	1
10°	3	2	3	1	1	2	2	1	3	2	3
12.5°	2	1	2	1	2	1	1	0	2	1	2
15°	1	1	1	1	1	1	0	2	1	1	1
17.5°	4	3	2	7	3	3	2	4	4	3	2
20°	5	5	6	3	6	4	3	4	5	5	6
22.5°	19	19	17	12	1	3	1	14	19	19	17
25°	24	28	22	18	13	4	13	20	24	28	22
27.5°	28	31	28	21	16	8	19	23	28	31	28
30°	34	38	34	25	19	7	21	28	34	38	34
32.5°	40	45	40	30	23	5	27	35	40	45	40
35°	45	50	44	36	26	15	29	38	45	50	44
37.5°	51	56	50	42	29	18	32	43	51	56	50
40°	58	64	56	46	34	15	38	51	58	64	56
42.5°	66	72	63	53	41	17	45	57	66	72	63
45°	73	81	70	59	46	19	50	64	73	81	70
47.5°	81	89	78	66	51	23	54	69	81	89	78
50°	89	98	86	71	56	28	60	76	89	98	86
52.5°	96	106	93	79	62	34	69	85	96	106	93
55°	104	115	100	87	70	42	76	91	104	115	100
57.5°	113	123	109	93	76	51	83	100	113	123	109
60°	120	130	115	99	83	59	90	108	120	130	115
62.5°	127	135	121	105	87	68	94	112	127	135	121
65°	131	141	126	109	89	78	96	118	131	141	126
67.5°	138	146	131	114	91	86	97	123	138	146	131
70°	143	153	137	117	92	93	96	128	143	153	137
72.5°	149	159	142	121	92	98	96	133	149	159	142
75°	155	166	147	124	94	101	98	138	155	166	147
77.5°	160	171	150	125	92	98	97	138	160	171	150
80°	153	146	137	117	85	78	95	131	153	146	137
82.5°	86	71	74	68	53	32	65	85	86	71	74
85°	10	0	3	6	6	1	18	20	10	0	3
87.5°	0	1	4	3	0	0	0	0	0	1	4
90°	5	13	2	0	0	4	1	1	5	13	2
92.5°	76	110	49	35	33	35	35	42	76	110	49
95°	176	234	147	117	110	112	117	124	176	234	147
97.5°	276	321	250	206	199	224	209	222	276	321	250
100°	342	370	314	272	284	350	294	292	342	370	314
102.5°	403	412	380	345	377	476	380	360	403	412	380
105°	470	489	453	430	499	607	494	436	470	489	453
107.5°	566	585	547	540	613	689	605	544	566	585	547
110°	668	698	642	645	736	743	706	656	668	698	642



TEST NUMBER: 253P174

CATALOG NUMBER: 1240-OB-26-CFL/3/27

CANDELA DISTRIBUTION (continued):

	160°	180°	200°	210°	220°	240°	260°	270°	280°	300°	320°
112.5°	776	797	743	746	826	760	779	759	776	797	743
115°	883	894	851	830	859	803	818	825	883	894	851
117.5°	936	999	916	867	864	878	840	863	936	999	916
120°	973	1057	944	866	865	932	839	875	973	1057	944
122.5°	969	1086	944	868	895	976	860	870	969	1086	944
125°	961	1104	940	884	941	1012	903	880	961	1104	940
127.5°	981	1128	963	918	995	1042	947	903	981	1128	963
130°	1019	1155	1012	966	1024	1062	978	949	1019	1155	1012
132.5°	1067	1182	1057	1018	1045	1077	1015	1005	1067	1182	1057
135°	1112	1200	1096	1047	1066	1111	1037	1047	1112	1200	1096
137.5°	1140	1208	1113	1058	1080	1140	1058	1063	1140	1208	1113
140°	1142	1190	1114	1066	1086	1163	1071	1079	1142	1190	1114
142.5°	1132	1154	1112	1072	1087	1163	1079	1091	1132	1154	1112
145°	1108	1124	1090	1071	1091	1148	1084	1087	1108	1124	1090
147.5°	1076	1089	1064	1051	1092	1133	1084	1064	1076	1089	1064
150°	1039	1047	1028	1034	1061	1100	1068	1035	1039	1047	1028
152.5°	1007	1009	1005	1005	1016	1051	1030	1014	1007	1009	1005
155°	971	976	972	957	958	990	976	970	971	976	972
157.5°	913	925	915	906	902	923	918	912	913	925	915
160°	853	862	854	848	846	859	855	849	853	862	854
162.5°	791	800	787	787	788	781	791	787	791	800	787
165°	729	733	723	720	716	712	728	727	729	733	723
167.5°	669	672	661	654	650	641	660	663	669	672	661
170°	604	606	601	596	592	589	599	602	604	606	601
172.5°	546	545	544	542	544	545	546	543	546	545	544
175°	504	501	504	505	509	509	507	505	504	501	504
177.5°	478	476	478	479	480	480	480	478	478	476	478
180°	465	465	465	465	465	465	465	465	465	465	465



TEST NUMBER: 253P174

CATALOG NUMBER: 1240-OB-26-CFL/3/27

CANDELA DISTRIBUTION (continued):

	330°	340°	360°
0°	3	3	3
2.5°	0	1	2
5°	3	1	2
7.5°	3	1	1
10°	1	1	2
12.5°	1	2	1
15°	1	1	1
17.5°	7	3	3
20°	3	6	4
22.5°	12	1	3
25°	18	13	4
27.5°	21	16	8
30°	25	19	7
32.5°	30	23	5
35°	36	26	15
37.5°	42	29	18
40°	46	34	15
42.5°	53	41	17
45°	59	46	19
47.5°	66	51	23
50°	71	56	28
52.5°	79	62	34
55°	87	70	42
57.5°	93	76	51
60°	99	83	59
62.5°	105	87	68
65°	109	89	78
67.5°	114	91	86
70°	117	92	93
72.5°	121	92	98
75°	124	94	101
77.5°	125	92	98
80°	117	85	78
82.5°	68	53	32
85°	6	6	1
87.5°	3	0	0
90°	0	0	4
92.5°	35	33	35
95°	117	110	112
97.5°	206	199	224
100°	272	284	350
102.5°	345	377	476
105°	430	499	607
107.5°	540	613	689
110°	645	736	743



TEST NUMBER: 253P174

CATALOG NUMBER: 1240-OB-26-CFL/3/27

CANDELA DISTRIBUTION (continued):

	330°	340°	360°
112.5°	746	826	760
115°	830	859	803
117.5°	867	864	878
120°	866	865	932
122.5°	868	895	976
125°	884	941	1012
127.5°	918	995	1042
130°	966	1024	1062
132.5°	1018	1045	1077
135°	1047	1066	1111
137.5°	1058	1080	1140
140°	1066	1086	1163
142.5°	1072	1087	1163
145°	1071	1091	1148
147.5°	1051	1092	1133
150°	1034	1061	1100
152.5°	1005	1016	1051
155°	957	958	990
157.5°	906	902	923
160°	848	846	859
162.5°	787	788	781
165°	720	716	712
167.5°	654	650	641
170°	596	592	589
172.5°	542	544	545
175°	505	509	509
177.5°	479	480	480
180°	465	465	465

(END OF REPORT)