

Scaled data based on original data using
LM-46-04 Photometric Testing of Indoor Luminaires Using High Intensity Discharge or
Incandescent Filament Lamps (Reaffirmed 2012)

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: RSA

Report Number: P13050

Luminaire Tested: **S1SN050M16E1WWW**

Issue Date: 3/3/2020

Test Information

Test Method: LM-46-04
Report Number: P13050
Test Lab: PEACHTREE CITY
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: RSA
Catalog Number: S1SN050M16E1WWW
Description: RSA STEALTH REGRESSED DIE-CAST WALL WASH TRIMLESS
INCANDESCENT RECESSED FIXTURE WITH SQUARE FOUR INCH WHITE
WALL WASH INSERT, LINEAR SPREAD FROSTED LENS (SMOOTH SIDE
DOWN) ---RELATIVE PHOTOMETRY IS BASED ON RELATIONAL FACTORS
CREATED USING MANUFACTURERS PUBLISHED DATA AND A BARE LAMP
SUM FOR THE LAMP UNDER TEST IN GONIOPHOTOMETER WITH TEST
DISTANCE OF 25.0 FEET---
Light Source: (1) BI PIN MR16 NARROW SPOT 15 DEGREE HALOGEN INCANDESCENT
LAMP
Q50MR16C/NSP15 50 WATTS
Ballast/Driver: (1) QTRAN TOROIDAL STEP DOWN TRANSFORMER
QT-50/75VA-MV-B

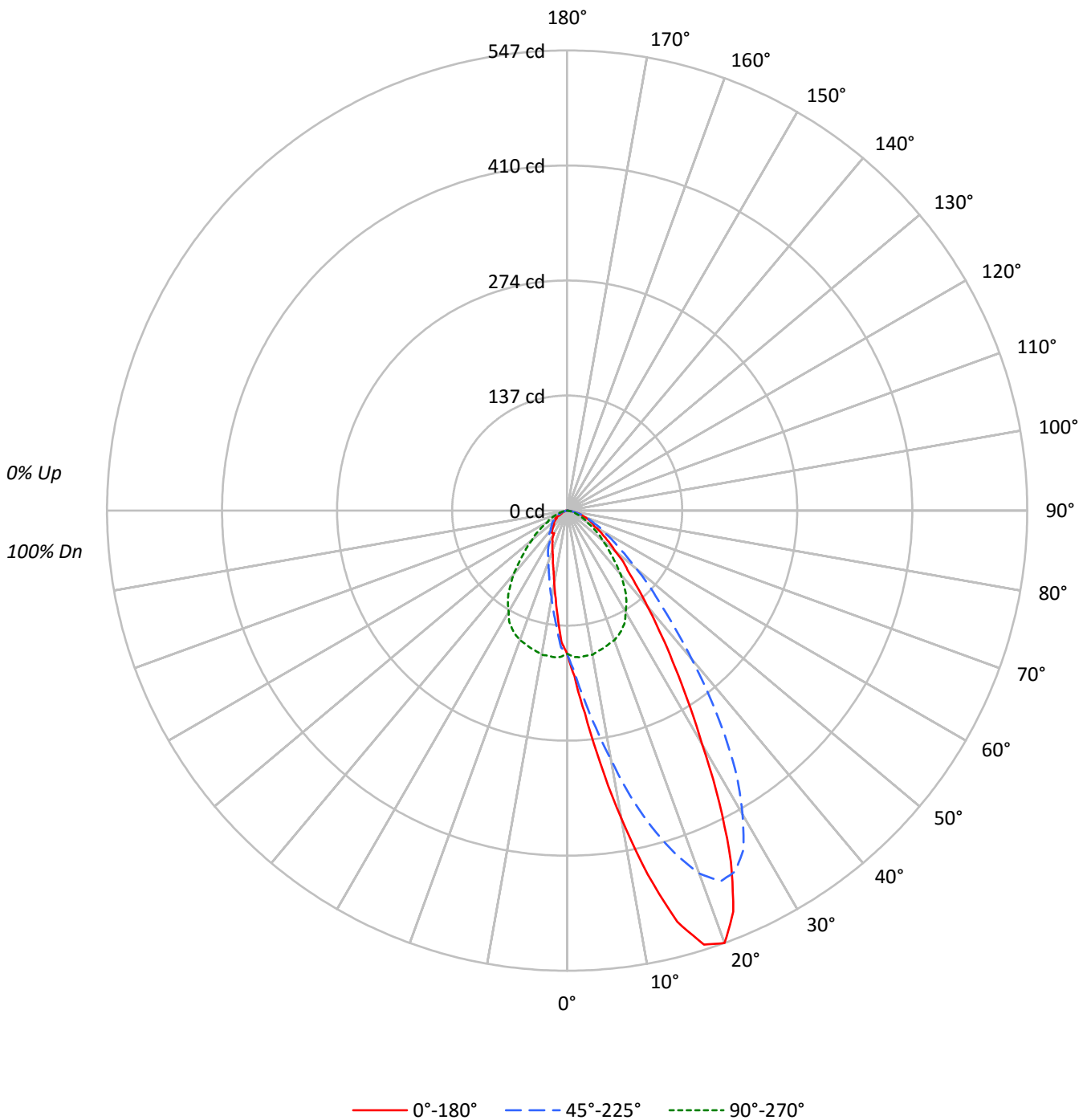
Summary

Lumens per Lamp: 750 (1 lamp)
Luminaire Lumens: 421.4 lumens
Efficiency: 56.2%
Efficacy: 8.5 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 1.21 / 1.31
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 49.8
Input Voltage (V): NR
Input Current (A_{in}): 4.0191
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: P13050
CATALOG NUMBER: S1SN050M16E1WWW

Luminous Intensity Polar Plot





TEST NUMBER: P13050

CATALOG NUMBER: S1SN050M16E1WWW

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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	67	67	67	67	65	65	65	65	62	62	62	60	60	60	57	57	57	56						56													
1	63	61	59	57	61	59	58	56	57	56	54	55	54	53	53	52	51	50						50													
2	58	55	52	49	57	54	51	49	52	49	47	50	48	46	48	47	45	44						44													
3	54	49	46	43	53	49	45	42	47	44	42	46	43	41	44	42	40	39						39													
4	50	45	41	38	49	44	40	37	43	40	37	42	39	37	40	38	36	35						35													
5	47	41	37	34	46	40	36	33	39	36	33	38	35	33	37	35	32	31						31													
6	44	37	33	30	43	37	33	30	36	32	30	35	32	30	34	32	29	28						28													
7	41	34	30	27	40	34	30	27	33	30	27	32	29	27	32	29	27	26						26													
8	38	32	28	25	38	31	27	25	31	27	25	30	27	24	29	27	24	23						23													
9	36	29	25	23	35	29	25	23	29	25	22	28	25	22	27	24	22	21						21													
10	34	27	23	21	33	27	23	21	27	23	21	26	23	21	26	23	21	20						20													

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	16469	16469	16469
5°	23533	17018	12350
10°	36594	17116	8657
15°	50748	16949	6519
20°	56392	16907	5258
25°	49276	16568	4382
30°	35908	15549	3468
35°	25781	14428	3784
40°	18716	12520	3288
45°	14111	10138	3014
50°	11153	8289	2864
55°	9120	6756	2533
60°	7169	5038	1744
65°	7106	4585	1605
70°	6231	3682	850
75°	5989	2994	749
80°	3347	1116	558
85°	1112	0	2223



TEST NUMBER: P13050

CATALOG NUMBER: S1SN050M16E1WWW

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	18.0	4.3	2.4
10°-20°	65.9	15.6	8.8
20°-30°	105.5	25.0	14.1
30°-40°	96.9	23.0	12.9
40°-50°	65.1	15.4	8.7
50°-60°	38.2	9.1	5.1
60°-70°	21.4	5.1	2.8
70°-80°	9.1	2.2	1.2
80°-90°	1.2	0.3	0.2
90°-100°	0.0	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-30°	189.5	45.0	25.3
0°-40°	286.4	68.0	38.2
0°-60°	389.7	92.5	52.0
0°-90°	421.4	100.0	56.2
90°-120°	0.0	0.0	0.0
90°-150°	0.0	0.0	0.0
90°-180°	0.0	0.0	0.0
0°-180°	421.4	100.0	56.2

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	170	170	170	170	170	
5°	242	223	175	140	127	27
15°	506	390	169	82	65	141
25°	461	473	155	54	41	205
35°	218	327	122	37	32	139
45°	103	156	74	26	22	82
55°	54	73	40	18	15	49
65°	31	35	20	11	7	30
75°	16	15	8	4	2	16
85°	1	1	0	0	2	2
90°	0	0	0	0	0	



TEST NUMBER: P13050

CATALOG NUMBER: S1SN050M16E1WWW

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°
0°	170	170	170	170	170	170	170	170	170	170	170
2.5°	197	197	196	197	197	196	196	196	195	194	189
5°	242	245	245	246	243	240	239	237	235	231	223
7.5°	303	306	307	304	301	298	295	292	284	277	262
10°	372	376	376	373	367	360	356	352	341	330	308
12.5°	443	448	446	443	436	427	421	415	400	383	357
15°	506	510	508	504	498	486	479	473	455	436	406
17.5°	541	548	546	544	537	527	521	516	498	478	447
20°	547	553	552	551	547	542	537	533	521	505	475
22.5°	516	524	522	524	524	524	522	522	517	508	485
25°	461	466	468	469	473	478	480	483	486	487	475
27.5°	392	397	397	403	408	417	422	428	437	448	444
30°	321	326	326	331	342	349	357	361	376	392	398
32.5°	265	269	270	275	282	291	299	306	321	341	351
35°	218	222	222	227	232	241	247	255	271	289	301
37.5°	180	182	183	186	191	199	204	209	223	239	253
40°	148	149	150	153	159	165	168	173	184	197	209
42.5°	123	124	125	127	131	137	140	144	152	163	174
45°	103	104	105	107	110	114	117	120	127	136	143
47.5°	91	89	90	92	93	98	99	102	110	115	121
50°	74	75	75	77	79	82	84	86	91	95	100
52.5°	64	64	65	65	67	70	71	74	79	81	83
55°	54	54	54	55	57	58	59	61	63	67	69
57.5°	47	49	48	48	49	50	51	53	54	57	59
60°	37	38	38	39	40	42	42	42	44	46	46
62.5°	35	36	37	37	38	37	38	39	41	40	41
65°	31	32	33	32	32	33	33	34	35	36	34
67.5°	27	28	27	27	28	28	29	29	29	30	29
70°	22	23	23	23	24	25	26	26	27	26	27
72.5°	18	18	18	18	19	19	19	19	20	20	20
75°	16	15	16	15	15	15	15	16	17	18	16
77.5°	11	11	10	10	11	11	12	11	11	12	11
80°	6	6	6	7	7	8	7	7	8	6	6
82.5°	4	4	5	5	5	4	5	5	5	4	4
85°	1	1	2	1	1	1	1	1	1	1	1
87.5°	1	0	1	1	1	1	1	0	1	0	0
90°	0	0	0	0	0	0	0	0	0	0	0



TEST NUMBER: P13050

CATALOG NUMBER: S1SN050M16E1WWW

CANDELA DISTRIBUTION (continued):

	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	112.5°
0°	170	170	170	170	170	170	170	170	170	170	170
2.5°	191	190	189	187	184	184	181	180	177	174	170
5°	223	217	213	207	200	197	190	186	180	175	155
7.5°	260	250	242	232	220	212	202	193	184	174	144
10°	301	287	273	257	240	228	213	199	185	174	133
12.5°	348	325	305	283	261	243	222	205	187	171	123
15°	390	363	338	309	281	257	231	209	188	169	112
17.5°	428	398	369	335	300	271	240	213	188	166	103
20°	459	428	396	358	319	285	249	217	189	164	95
22.5°	477	447	417	377	335	298	256	220	187	160	90
25°	473	452	427	390	346	304	259	220	185	155	81
27.5°	454	443	425	394	351	308	260	218	180	149	73
30°	417	418	408	383	344	301	252	209	169	139	63
32.5°	376	385	385	368	334	294	246	203	163	131	61
35°	327	341	348	338	311	276	231	189	152	122	57
37.5°	277	293	303	299	278	248	209	171	137	110	51
40°	230	245	256	254	240	215	182	152	121	99	44
42.5°	190	202	213	212	201	183	156	130	105	86	41
45°	156	166	172	173	165	152	131	111	91	74	36
47.5°	132	136	142	141	134	125	110	94	81	65	35
50°	107	110	113	113	108	100	89	76	66	55	30
52.5°	88	92	94	92	87	82	74	66	56	49	28
55°	73	75	75	73	70	65	59	52	45	40	23
57.5°	61	61	60	59	56	53	48	43	39	34	21
60°	48	47	47	45	43	40	37	33	29	26	16
62.5°	44	42	40	39	37	35	32	31	26	25	17
65°	35	34	34	33	30	28	26	24	22	20	15
67.5°	30	28	28	26	25	22	20	19	17	16	11
70°	25	26	25	22	19	19	17	15	14	13	10
72.5°	20	18	16	14	13	13	11	10	10	10	6
75°	15	15	13	12	11	10	9	7	8	8	6
77.5°	11	10	8	8	6	6	5	5	4	4	3
80°	6	6	4	3	3	2	2	2	2	2	0
82.5°	4	3	2	2	2	2	2	2	2	2	1
85°	1	1	0	0	0	0	0	0	0	0	0
87.5°	1	0	0	0	0	0	0	0	0	0	0
90°	0	0	0	0	0	0	0	0	0	0	0



TEST NUMBER: P13050

CATALOG NUMBER: S1SN050M16E1WWW

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	170	170	170
2.5°	163	160	156
5°	140	131	127
7.5°	122	110	105
10°	106	94	88
12.5°	94	80	74
15°	82	70	65
17.5°	73	60	56
20°	65	54	51
22.5°	59	50	46
25°	54	44	41
27.5°	48	40	38
30°	39	30	31
32.5°	39	34	32
35°	37	34	32
37.5°	35	30	29
40°	30	27	26
42.5°	29	27	24
45°	26	23	22
47.5°	25	25	22
50°	23	20	19
52.5°	22	19	17
55°	18	17	15
57.5°	16	14	17
60°	13	10	9
62.5°	13	10	9
65°	11	8	7
67.5°	9	7	8
70°	10	7	3
72.5°	5	3	3
75°	4	4	2
77.5°	2	2	3
80°	1	1	1
82.5°	1	1	2
85°	0	0	2
87.5°	0	0	0
90°	0	0	0

(END OF REPORT)