

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: NEO-RAY

Report Number: P242554

Luminaire Tested: **S123RDR-S340D940-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242554  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-25)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S123RDR-S340D940-X4F0-XX-UDD-F-W  
Description: DEFINE 3 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1084.6 lumens  
Efficiency: N/A  
Efficacy: 93.5 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.07 / 1.22  
Luminous Opening: Rectangular (W 0.23' x L: 3.88' x H: 0')  
CIE Type: Direct

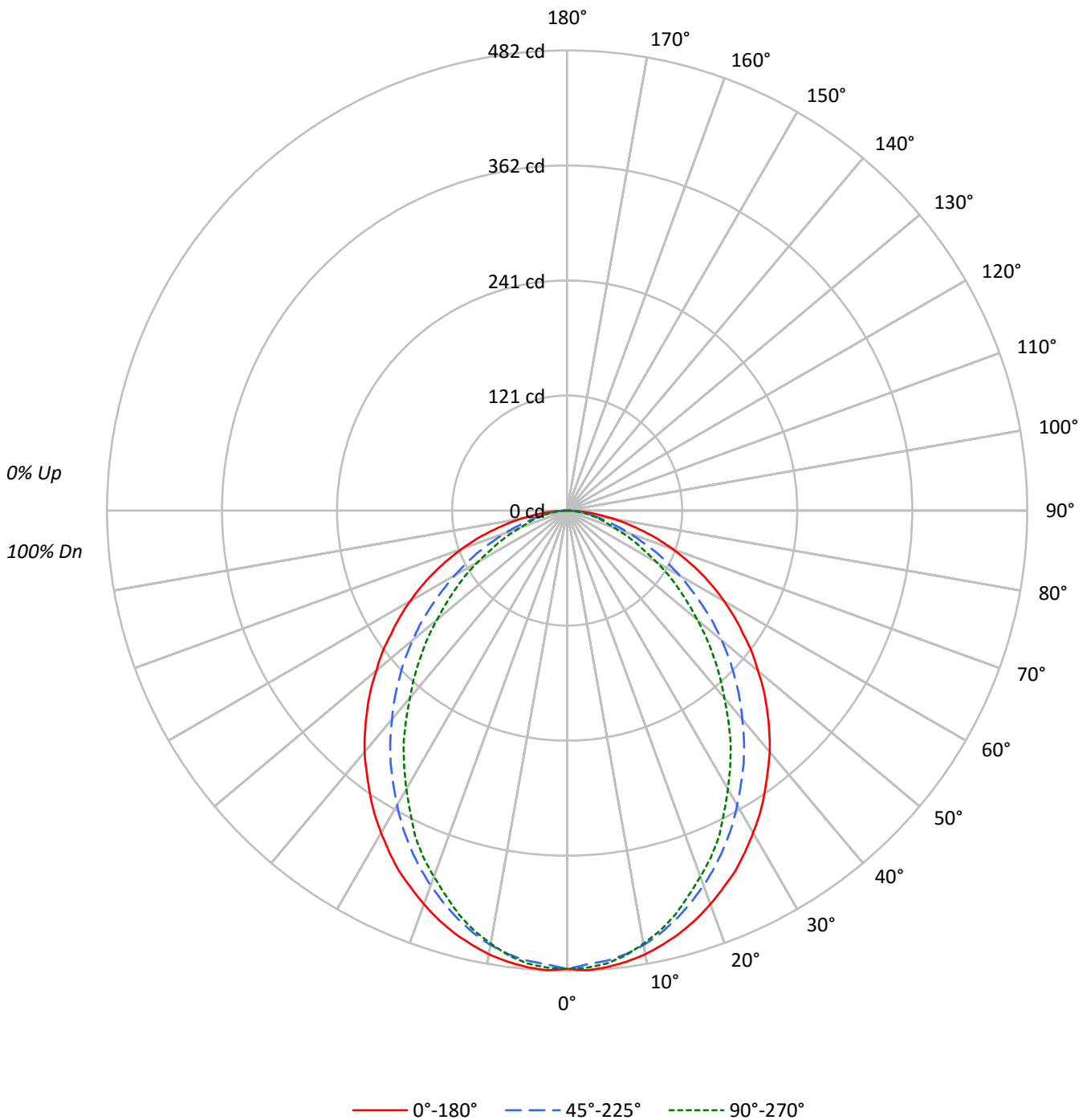
Input Watts (W): 11.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	99	96	99	96	93	95	93	90	91	89	88	86
2	100	93	86	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73
3	92	82	75	68	90	81	74	68	78	72	67	75	70	66	73	68	64	62
4	85	73	65	59	83	72	64	58	70	63	58	67	62	57	65	60	56	54
5	78	66	57	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47
6	73	60	51	45	71	59	51	45	57	50	45	55	49	44	54	48	44	42
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	44	39	37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	34	29	28

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	5819	5819	5819
5°	5842	5760	5794
10°	5808	5688	5669
15°	5746	5555	5496
20°	5660	5389	5263
25°	5572	5203	5035
30°	5454	4986	4714
35°	5334	4771	4418
40°	5225	4516	4054
45°	5079	4265	3725
50°	4920	3979	3355
55°	4755	3654	3011
60°	4606	3304	2633
65°	4411	2925	2254
70°	4168	2456	1822
75°	3812	1934	1714
80°	3399	1710	1578
85°	2865	1516	1405



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	45.1	4.2
10°-20°	125.5	11.6
20°-30°	180.8	16.7
30°-40°	203.6	18.8
40°-50°	194.7	18.0
50°-60°	159.4	14.7
60°-70°	107.5	9.9
70°-80°	53.9	5.0
80°-90°	14.1	1.3
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°	351.4	32.4
0°-40°	555.0	51.2
0°-60°	909.1	83.8
0°-90°	1084.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1084.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	480	480	480	480	480	
5°	480	478	473	477	476	46
15°	458	454	443	441	438	129
25°	417	407	389	381	376	192
35°	360	346	322	306	299	226
45°	296	279	249	227	217	229
55°	225	206	173	150	142	202
65°	154	132	102	83	79	152
75°	81	63	41	37	37	87
85°	21	12	11	10	10	24
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	480.1	480.1	480.1	480.1	480.1
2.5°	482.0	480.4	475.8	480.1	479.3
5°	480.1	478.1	473.4	476.9	476.2
7.5°	476.6	474.6	468.8	471.1	469.9
10°	471.9	469.2	462.1	462.5	460.6
12.5°	465.3	462.1	453.2	452.8	450.5
15°	457.9	453.6	442.7	440.7	438.0
17.5°	448.9	444.2	430.6	426.7	422.8
20°	438.8	432.6	417.8	412.7	408.0
22.5°	427.5	420.1	404.1	397.5	393.2
25°	416.6	406.9	389.0	380.8	376.5
27.5°	403.4	392.8	373.4	362.5	355.9
30°	389.7	378.1	356.2	343.0	336.8
32.5°	376.1	362.5	339.1	324.3	317.7
35°	360.5	346.5	322.4	305.6	298.6
37.5°	345.0	329.8	304.5	285.8	277.2
40°	330.2	313.0	285.4	265.1	256.2
42.5°	313.4	296.3	267.5	244.9	237.1
45°	296.3	278.8	248.8	226.6	217.3
47.5°	279.5	260.1	230.5	206.4	198.2
50°	260.9	242.6	211.0	186.9	177.9
52.5°	244.1	223.9	192.7	167.4	159.6
55°	225.0	206.0	172.9	150.3	142.5
57.5°	207.9	187.3	153.8	132.4	125.8
60°	190.0	168.6	136.3	115.2	108.6
62.5°	172.1	150.7	118.4	98.9	91.9
65°	153.8	132.4	102.0	82.9	78.6
67.5°	135.5	113.7	84.1	69.7	65.0
70°	117.6	96.6	69.3	55.7	51.4
72.5°	99.7	79.0	54.9	44.4	43.2
75°	81.4	62.7	41.3	37.4	36.6
77.5°	64.6	47.5	32.3	30.0	29.2
80°	48.7	32.7	24.5	23.4	22.6
82.5°	33.5	20.2	17.5	16.4	16.4
85°	20.6	12.1	10.9	10.1	10.1
87.5°	9.3	5.1	5.1	4.7	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)