

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059623

Luminaire Tested: S123RDR-H340D930-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059623
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-67)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H340D930-X4F0-XX-UDD-WVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

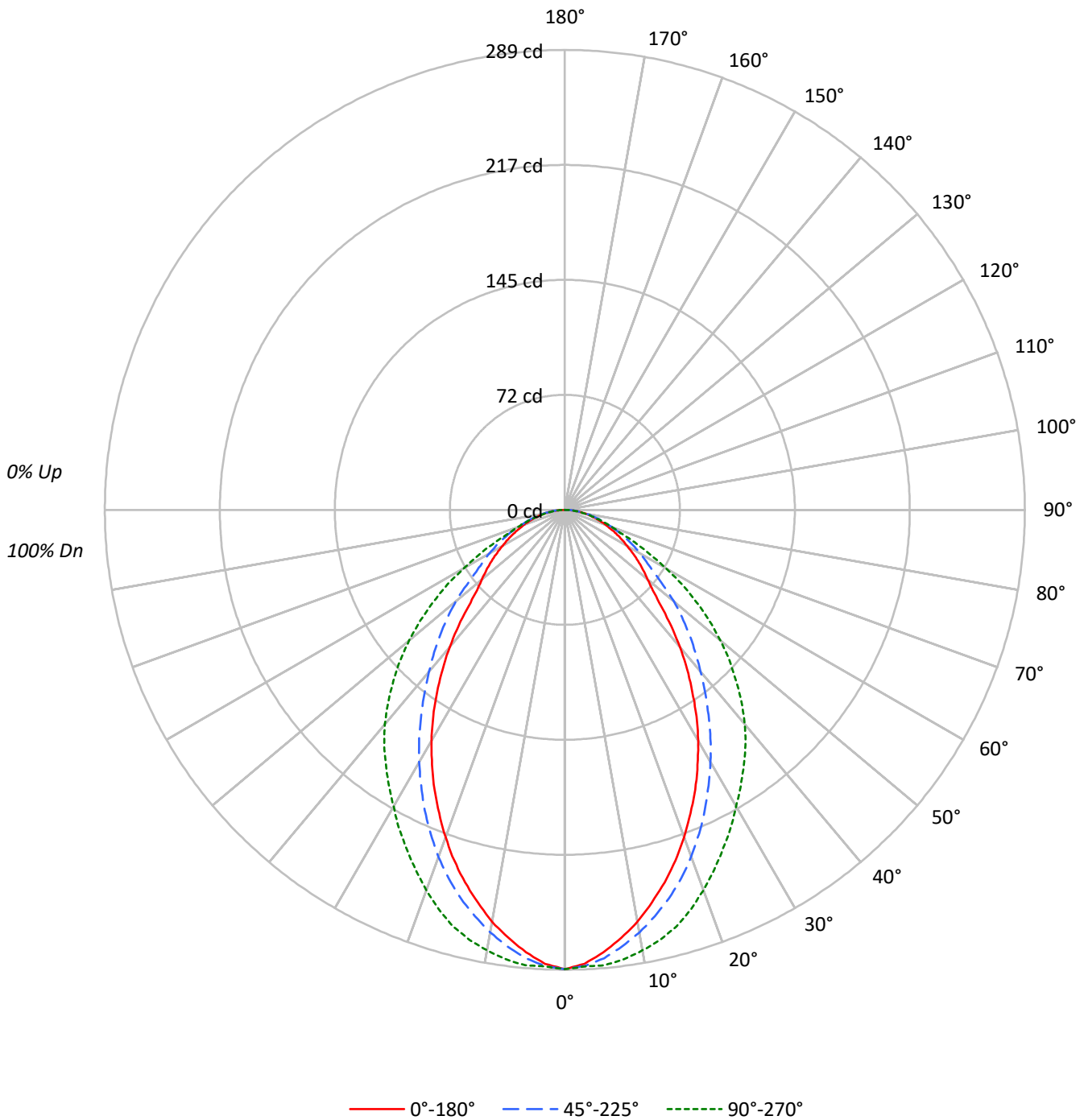
Lumens per Lamp: N/A
Luminaire Lumens: 521.3 lumens
Efficiency: N/A
Efficacy: 44.6 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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: 24 FT

TEST NUMBER: P1059623

CATALOG NUMBER: S123RDR-H340D930-X4F0-XX-UDD-WVL-S

Luminous Intensity Polar Plot





TEST NUMBER: P1059623

CATALOG NUMBER: S123RDR-H340D930-X4F0-XX-UDD-WVL-S

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	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					100															
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87					87															
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75					75															
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65					65															
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57					57															
5	80	69	60	54	78	68	60	54	66	59	54	64	58	53	62	57	53	51					51															
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45					45															
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43	41					41															
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39	37					37															
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35	34					34															
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31					31															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3389	3389	3389
5°	3290	3333	3385
10°	3135	3215	3352
15°	2944	3072	3294
20°	2735	2900	3179
25°	2511	2696	3046
30°	2271	2481	2918
35°	2003	2255	2808
40°	1721	2033	2696
45°	1415	1832	2527
50°	1242	1631	2329
55°	1151	1392	2064
60°	1057	1280	1707
65°	986	1175	1345
70°	930	1068	1068
75°	876	985	921
80°	825	893	778
85°	781	862	593

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2527 cd/sqm



TEST NUMBER: P1059623

CATALOG NUMBER: S123RDR-H340D930-X4F0-XX-UDD-WVL-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.7	5.1
10°-20°	71.5	13.7
20°-30°	97.0	18.6
30°-40°	101.4	19.5
40°-50°	87.9	16.9
50°-60°	65.4	12.6
60°-70°	42.0	8.1
70°-80°	22.5	4.3
80°-90°	6.8	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°	195.2	37.4
0°-40°	296.6	56.9
0°-60°	450.0	86.3
0°-90°	521.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	521.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	289	289	289	289	289	
5°	279	284	283	285	287	26
15°	242	248	253	263	271	68
25°	194	200	208	222	235	89
35°	140	146	157	177	196	87
45°	85	92	110	134	152	67
55°	56	58	68	87	101	50
65°	36	39	42	45	48	35
75°	19	22	22	21	20	20
85°	6	7	6	5	4	7
90°	0	0	0	0	0	

TEST NUMBER: P1059623

CATALOG NUMBER: S123RDR-H340D930-X4F0-XX-UDD-WVL-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	288.6	288.6	288.6	288.6	288.6
2.5°	285.5	289.6	286.9	286.9	287.2
5°	279.1	283.8	282.8	284.8	287.2
7.5°	271.3	276.4	276.7	281.5	284.8
10°	262.9	267.9	269.6	276.4	281.1
12.5°	252.7	258.5	261.5	270.0	276.7
15°	242.2	248.0	252.7	262.9	271.0
17.5°	231.1	236.8	242.9	254.4	263.2
20°	218.9	225.0	232.1	243.6	254.4
22.5°	206.4	212.8	220.2	232.7	244.9
25°	193.8	199.9	208.1	221.9	235.1
27.5°	180.6	187.1	195.5	210.8	225.6
30°	167.5	173.9	183.0	199.3	215.2
32.5°	153.9	160.4	170.2	188.4	205.7
35°	139.7	146.5	157.3	177.3	195.9
37.5°	126.2	132.6	144.8	166.8	186.4
40°	112.3	119.1	132.6	156.3	175.9
42.5°	98.8	105.5	121.4	145.1	164.4
45°	85.2	91.7	110.3	134.0	152.2
47.5°	74.8	79.5	99.8	122.1	140.4
50°	68.0	69.7	89.3	110.6	127.5
52.5°	61.9	63.3	77.8	99.1	114.3
55°	56.2	57.5	68.0	87.3	100.8
57.5°	50.4	52.1	60.6	75.1	87.3
60°	45.0	47.0	54.5	64.3	72.7
62.5°	40.3	42.6	48.4	54.5	60.2
65°	35.5	38.6	42.3	45.0	48.4
67.5°	31.1	34.5	36.5	37.2	37.6
70°	27.1	30.4	31.1	31.1	31.1
72.5°	23.0	26.7	26.0	25.7	25.4
75°	19.3	22.3	21.7	20.6	20.3
77.5°	15.6	18.3	17.3	16.6	15.6
80°	12.2	14.2	13.2	12.5	11.5
82.5°	9.1	10.5	9.5	8.8	7.8
85°	5.8	7.1	6.4	5.4	4.4
87.5°	3.0	4.1	3.4	3.0	1.7
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1059623
 CATALOG NUMBER: S123RDR-H340D930-X4F0-XX-UDD-WVL-S

CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	11.03	12.51	11.39	12.82	13.14	13.78	15.27	14.15	15.58	15.89
	3H	12.74	14.06	13.11	14.39	14.75	14.80	16.13	15.18	16.46	16.82
	4H	13.40	14.64	13.80	14.99	15.37	15.17	16.41	15.57	16.76	17.14
	6H	13.90	15.05	14.31	15.41	15.81	15.42	16.57	15.84	16.94	17.33
	8H	14.08	15.17	14.50	15.56	15.96	15.49	16.59	15.92	16.98	17.38
	12H	14.20	15.25	14.63	15.63	16.06	15.53	16.58	15.96	16.96	17.39
4H	2H	11.80	13.05	12.20	13.40	13.78	14.05	15.30	14.45	15.65	16.03
	3H	13.73	14.76	14.14	15.16	15.56	15.31	16.34	15.72	16.74	17.14
	4H	14.54	15.46	14.97	15.88	16.32	15.79	16.72	16.23	17.14	17.58
	6H	15.18	15.99	15.64	16.43	16.89	16.17	16.98	16.63	17.43	17.89
	8H	15.41	16.16	15.87	16.61	17.07	16.29	17.04	16.75	17.49	17.95
	12H	15.58	16.25	16.06	16.73	17.20	16.36	17.03	16.84	17.51	17.98
8H	4H	14.86	15.61	15.32	16.06	16.52	15.99	16.74	16.45	17.19	17.65
	6H	15.65	16.27	16.15	16.77	17.24	16.47	17.10	16.97	17.59	18.07
	8H	15.98	16.54	16.49	17.05	17.54	16.65	17.21	17.17	17.72	18.21
	12H	16.26	16.75	16.77	17.24	17.81	16.78	17.28	17.29	17.77	18.34
12H	4H	14.88	15.55	15.36	16.03	16.50	16.00	16.67	16.48	17.15	17.63
	6H	15.70	16.27	16.22	16.78	17.27	16.51	17.07	17.03	17.58	18.07
	8H	16.10	16.59	16.61	17.09	17.65	16.74	17.24	17.25	17.73	18.30