

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



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059645

Luminaire Tested: S123RDRP-H340D950-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059645  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-66)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-H340D950-X4F0-XX-UDD-BVL-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

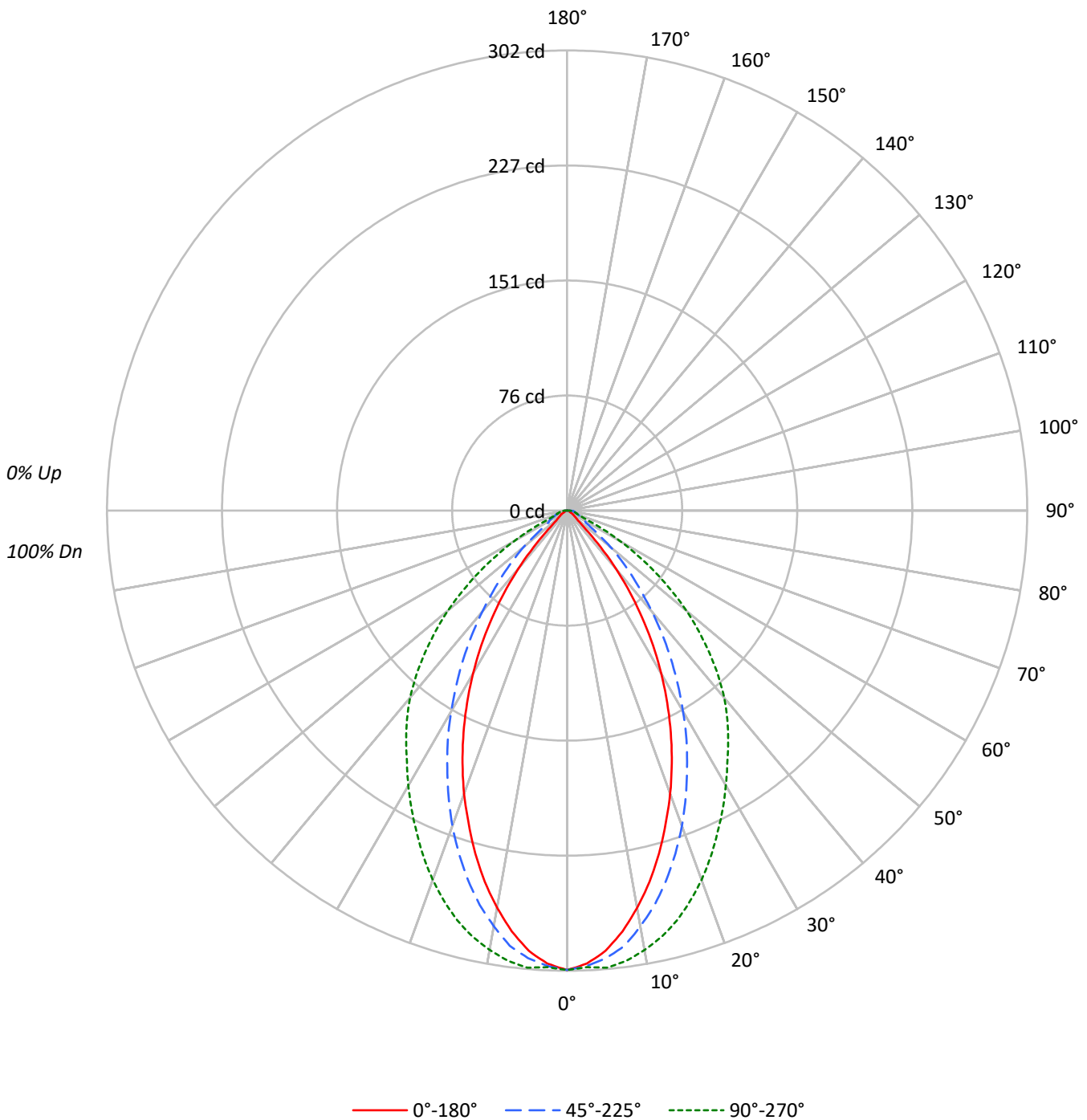
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 362.0 lumens  
Efficiency: N/A  
Efficacy: 30.9 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94  
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 (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: 24 FT

TEST NUMBER: P1059645

CATALOG NUMBER: S123RDRP-H340D950-X4F0-XX-UDD-BVL-W

### Luminous Intensity Polar Plot





TEST NUMBER: P1059645

CATALOG NUMBER: S123RDRP-H340D950-X4F0-XX-UDD-BVL-W

**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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	99	94	89	102	97	92	88	94	90	86	91	87	85	88	85	83	81
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55
7	76	65	58	53	75	65	58	53	63	57	53	62	56	52	61	56	52	50
8	72	61	54	49	70	60	53	49	59	53	49	58	52	48	57	52	48	47
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	42	40

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

	0°	45°	90°
0°	3540	3540	3540
5°	3418	3475	3549
10°	3156	3303	3491
15°	2833	3054	3386
20°	2470	2753	3223
25°	2085	2412	3024
30°	1676	2062	2826
35°	1227	1699	2640
40°	765	1324	2460
45°	289	986	2190
50°	137	680	1867
55°	106	373	1443
60°	75	317	949
65°	56	275	397
70°	55	257	257
75°	73	268	268
80°	108	325	298
85°	216	539	431

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2190 cd/sqm



TEST NUMBER: P1059645

CATALOG NUMBER: S123RDRP-H340D950-X4F0-XX-UDD-BVL-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	27.7	7.6
10°-20°	71.0	19.6
20°-30°	87.9	24.3
30°-40°	78.8	21.8
40°-50°	51.6	14.3
50°-60°	25.8	7.1
60°-70°	10.1	2.8
70°-80°	5.7	1.6
80°-90°	3.5	1.0
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°	186.5	51.5
0°-40°	265.3	73.3
0°-60°	342.7	94.7
0°-90°	362.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	362.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	302	302	302	302	302	
5°	290	295	295	298	301	27
15°	233	242	251	268	278	65
25°	161	171	186	213	233	73
35°	86	97	118	154	184	53
45°	17	28	59	102	132	17
55°	5	6	18	50	70	5
65°	2	6	10	13	14	2
75°	2	6	6	6	6	2
85°	2	4	4	4	3	1
90°	0	0	0	0	0	



TEST NUMBER: P1059645

CATALOG NUMBER: S123RDRP-H340D950-X4F0-XX-UDD-BVL-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	301.5	301.5	301.5	301.5	301.5
2.5°	297.6	301.9	299.1	299.5	299.9
5°	290.0	294.8	294.8	298.0	301.1
7.5°	278.5	284.1	288.1	293.6	298.0
10°	264.7	271.4	277.0	286.9	292.8
12.5°	249.6	257.9	265.1	278.1	286.5
15°	233.0	242.5	251.2	267.8	278.5
17.5°	215.1	224.7	236.1	255.6	268.6
20°	197.7	207.2	220.3	242.1	257.9
22.5°	179.5	189.4	203.3	227.4	246.1
25°	160.9	170.8	186.2	212.8	233.4
27.5°	142.2	152.1	169.6	198.5	221.1
30°	123.6	133.5	152.1	183.1	208.4
32.5°	105.0	115.7	135.1	168.8	195.7
35°	85.6	97.1	118.5	154.1	184.2
37.5°	67.8	78.5	102.6	141.5	172.8
40°	49.9	61.4	86.4	129.2	160.5
42.5°	32.5	44.8	71.7	115.7	146.6
45°	17.4	28.1	59.4	101.8	131.9
47.5°	9.5	15.5	47.9	87.2	116.9
50°	7.5	8.7	37.2	74.5	102.2
52.5°	6.3	7.1	26.5	62.6	86.0
55°	5.2	6.3	18.2	49.9	70.5
57.5°	4.4	5.5	14.3	38.8	55.1
60°	3.2	4.8	13.5	28.5	40.4
62.5°	2.4	5.2	11.9	19.8	26.5
65°	2.0	5.9	9.9	13.1	14.3
67.5°	1.6	6.3	8.7	8.3	8.3
70°	1.6	5.9	7.5	7.1	7.5
72.5°	1.6	6.3	6.7	6.3	6.7
75°	1.6	5.9	5.9	5.9	5.9
77.5°	1.6	5.5	5.5	5.2	5.2
80°	1.6	4.8	4.8	4.8	4.4
82.5°	1.6	4.4	4.4	4.4	3.6
85°	1.6	4.0	4.0	4.0	3.2
87.5°	1.2	3.6	4.0	3.6	2.4
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1059645  
 CATALOG NUMBER: S123RDRP-H340D950-X4F0-XX-UDD-BVL-W

**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	0.00	0.00	0.00	0.00	0.00	10.99	12.25	11.36	12.56	12.88
	3H	0.00	0.16	0.00	0.49	0.86	11.07	12.18	11.45	12.51	12.88
	4H	0.16	1.19	0.56	1.55	1.93	11.15	12.18	11.55	12.53	12.92
	6H	1.16	2.11	1.58	2.48	2.88	11.26	12.21	11.67	12.58	12.97
	8H	1.66	2.55	2.09	2.95	3.35	11.32	12.21	11.75	12.61	13.01
	12H	2.23	3.08	2.66	3.47	3.90	11.40	12.26	11.83	12.64	13.07
4H	2H	0.00	1.02	0.39	1.37	1.75	10.85	11.88	11.25	12.23	12.62
	3H	2.29	3.14	2.71	3.54	3.95	11.02	11.87	11.44	12.27	12.68
	4H	3.66	4.41	4.09	4.83	5.28	11.17	11.93	11.61	12.35	12.79
	6H	4.76	5.41	5.22	5.86	6.32	11.40	12.05	11.87	12.50	12.97
	8H	5.23	5.84	5.70	6.28	6.76	11.53	12.14	12.00	12.59	13.06
	12H	5.73	6.27	6.22	6.75	7.23	11.71	12.25	12.20	12.73	13.21
8H	4H	4.63	5.24	5.10	5.69	6.16	11.17	11.78	11.64	12.22	12.70
	6H	6.17	6.67	6.68	7.17	7.65	11.51	12.01	12.02	12.51	12.99
	8H	6.96	7.41	7.49	7.93	8.42	11.75	12.20	12.27	12.72	13.21
	12H	7.78	8.18	8.30	8.68	9.25	12.09	12.49	12.61	12.99	13.56
12H	4H	4.81	5.35	5.30	5.83	6.31	11.15	11.69	11.64	12.17	12.65
	6H	6.50	6.95	7.02	7.46	7.96	11.53	11.98	12.06	12.50	12.99
	8H	7.47	7.87	7.99	8.36	8.94	11.85	12.25	12.37	12.74	13.32