

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: P1059633

Luminaire Tested: S123RDR-H340D935-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059633
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-64)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H340D935-X4F0-XX-UDD-WVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

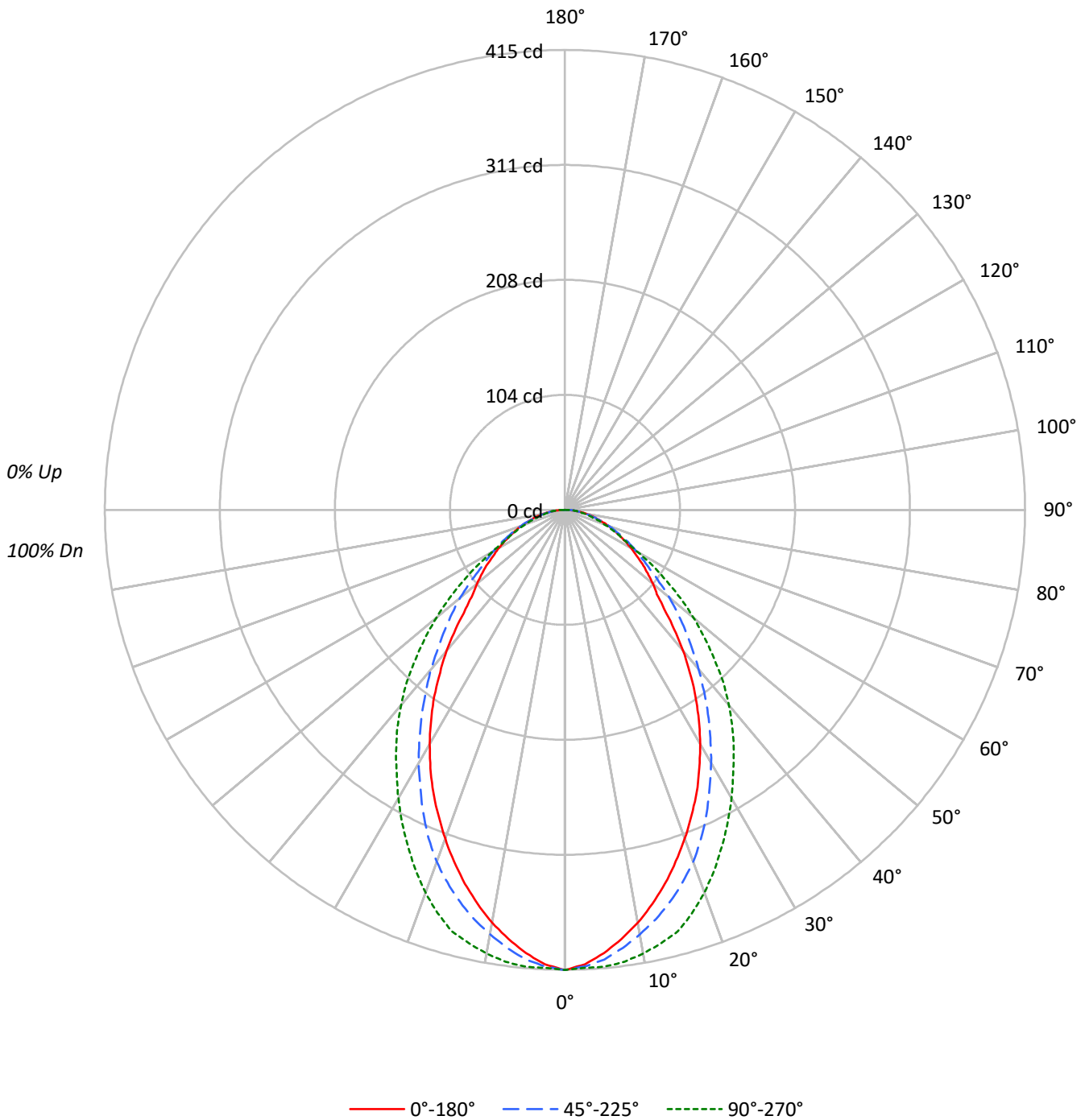
Lumens per Lamp: N/A
Luminaire Lumens: 729.5 lumens
Efficiency: N/A
Efficacy: 62.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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: P1059633

CATALOG NUMBER: S123RDR-H340D935-X4F0-XX-UDD-WVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1059633

CATALOG NUMBER: S123RDR-H340D935-X4F0-XX-UDD-WVL-W

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									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	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	101	97	100	97	94	96	94	92	92	91	89	87													87															
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75													75															
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66													66															
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58													58															
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51													51															
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46													46															
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41													41															
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38													38															
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34													34															
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32													32															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4875	4875	4875
5°	4734	4801	4876
10°	4512	4639	4848
15°	4244	4452	4786
20°	3946	4224	4594
25°	3643	3917	4342
30°	3308	3576	4074
35°	2944	3227	3806
40°	2541	2876	3527
45°	2101	2546	3162
50°	1887	2245	2760
55°	1748	1916	2289
60°	1611	1745	1754
65°	1498	1578	1470
70°	1411	1435	1287
75°	1329	1279	1134
80°	1258	1156	1062
85°	1199	1293	1199

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3162 cd/sqm



TEST NUMBER: P1059633

CATALOG NUMBER: S123RDR-H340D935-X4F0-XX-UDD-WVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.5	5.3
10°-20°	103.6	14.2
20°-30°	140.1	19.2
30°-40°	144.0	19.7
40°-50°	121.0	16.6
50°-60°	86.7	11.9
60°-70°	55.2	7.6
70°-80°	30.3	4.2
80°-90°	10.1	1.4
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°	282.2	38.7
0°-40°	426.2	58.4
0°-60°	633.9	86.9
0°-90°	729.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	729.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	415	415	415	415	415	
5°	402	409	407	410	414	38
15°	349	359	366	382	394	98
25°	281	292	302	319	335	129
35°	205	216	225	245	266	128
45°	126	138	153	175	190	100
55°	85	87	94	106	112	76
65°	54	57	57	54	53	54
75°	29	32	28	26	25	31
85°	9	9	10	10	9	10
90°	0	0	0	0	0	



TEST NUMBER: P1059633

CATALOG NUMBER: S123RDR-H340D935-X4F0-XX-UDD-WVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	415.2	415.2	415.2	415.2	415.2
2.5°	410.5	416.2	412.3	412.7	413.7
5°	401.6	408.7	407.3	410.2	413.7
7.5°	390.5	398.4	398.7	405.5	411.2
10°	378.4	386.6	389.1	399.4	406.6
12.5°	364.1	373.0	378.4	391.2	400.5
15°	349.1	358.7	366.2	381.9	393.7
17.5°	332.6	343.0	352.6	369.4	381.6
20°	315.8	326.9	338.0	353.7	367.6
22.5°	298.3	309.8	321.2	336.6	351.9
25°	281.2	291.9	302.3	318.7	335.1
27.5°	262.6	273.7	282.6	300.8	318.0
30°	244.0	255.1	263.7	282.6	300.5
32.5°	224.7	236.2	244.0	263.7	282.3
35°	205.4	216.5	225.1	245.1	265.5
37.5°	185.1	197.2	205.8	228.3	248.3
40°	165.8	177.2	187.6	211.2	230.1
42.5°	145.8	157.6	169.4	193.6	211.2
45°	126.5	137.6	153.3	175.4	190.4
47.5°	112.5	119.7	137.9	156.5	170.8
50°	103.3	106.1	122.9	139.3	151.1
52.5°	94.0	96.1	107.5	122.5	131.5
55°	85.4	87.2	93.6	106.1	111.8
57.5°	76.1	77.9	83.2	90.4	93.6
60°	68.6	70.0	74.3	75.4	74.7
62.5°	61.1	63.2	65.4	62.9	61.8
65°	53.9	57.2	56.8	53.6	52.9
67.5°	47.5	50.7	48.9	45.7	44.7
70°	41.1	44.3	41.8	38.6	37.5
72.5°	35.0	38.6	34.7	31.8	31.1
75°	29.3	32.2	28.2	26.1	25.0
77.5°	23.9	26.1	22.5	20.7	20.0
80°	18.6	20.0	17.1	16.1	15.7
82.5°	13.6	14.3	12.5	13.2	12.9
85°	8.9	9.3	9.6	10.0	8.9
87.5°	4.3	6.1	6.1	5.7	4.6
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1059633
 CATALOG NUMBER: S123RDR-H340D935-X4F0-XX-UDD-WVL-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	12.69	14.15	13.05	14.47	14.78	13.76	15.22	14.12	15.53	15.85
	3H	14.39	15.70	14.76	16.02	16.39	14.84	16.15	15.22	16.48	16.84
	4H	15.04	16.27	15.44	16.62	17.00	15.24	16.47	15.65	16.82	17.20
	6H	15.54	16.68	15.96	17.04	17.44	15.55	16.69	15.97	17.06	17.45
	8H	15.72	16.79	16.14	17.18	17.59	15.69	16.77	16.12	17.16	17.56
	12H	15.84	16.87	16.27	17.26	17.68	15.81	16.84	16.24	17.22	17.65
4H	2H	13.29	14.52	13.69	14.87	15.25	14.16	15.39	14.56	15.74	16.12
	3H	15.22	16.24	15.63	16.64	17.04	15.48	16.50	15.89	16.90	17.30
	4H	16.03	16.95	16.46	17.36	17.80	16.00	16.92	16.43	17.33	17.77
	6H	16.68	17.47	17.14	17.92	18.38	16.43	17.23	16.89	17.67	18.13
	8H	16.90	17.64	17.36	18.09	18.56	16.62	17.37	17.09	17.81	18.28
	12H	17.07	17.74	17.56	18.22	18.69	16.80	17.47	17.29	17.95	18.42
8H	4H	16.27	17.01	16.73	17.46	17.92	16.24	16.99	16.71	17.43	17.90
	6H	17.05	17.67	17.55	18.16	18.64	16.79	17.41	17.29	17.90	18.38
	8H	17.37	17.92	17.88	18.43	18.92	17.07	17.62	17.58	18.13	18.62
	12H	17.64	18.13	18.15	18.62	19.18	17.36	17.85	17.87	18.34	18.91
12H	4H	16.28	16.94	16.76	17.42	17.89	16.27	16.94	16.75	17.41	17.89
	6H	17.09	17.64	17.60	18.15	18.64	16.84	17.40	17.36	17.91	18.40
	8H	17.46	17.95	17.98	18.45	19.01	17.19	17.67	17.70	18.17	18.73