

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: P1059626

Luminaire Tested: S123RDR-H340D935-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059626
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-69)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H340D935-X4F0-XX-UDD-BVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

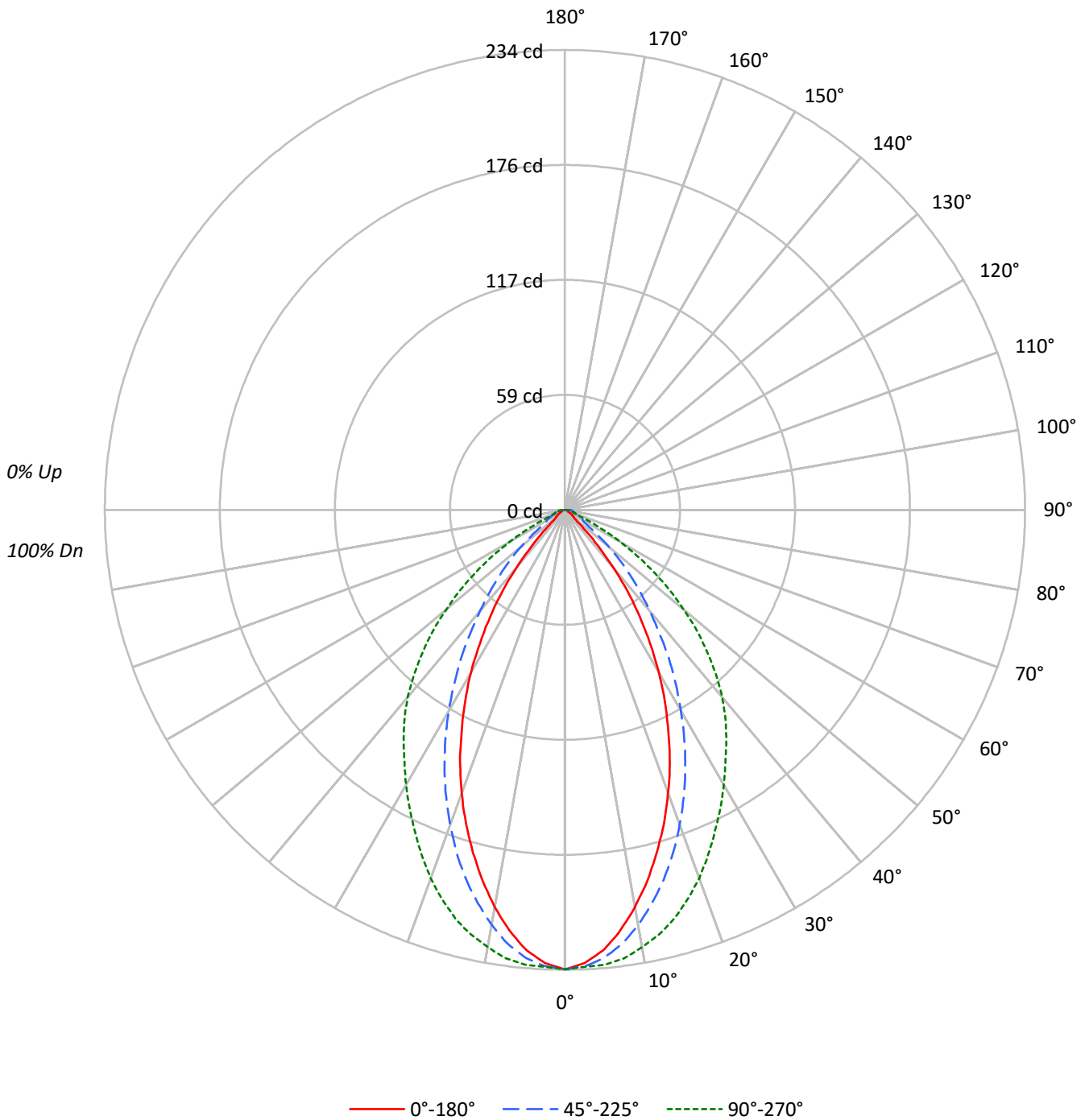
Lumens per Lamp: N/A
Luminaire Lumens: 280.8 lumens
Efficiency: N/A
Efficacy: 24.0 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
Input Voltage (V): 120
Input Current (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: P1059626

CATALOG NUMBER: S123RDR-H340D935-X4F0-XX-UDD-BVL-S

Luminous Intensity Polar Plot





TEST NUMBER: P1059626

CATALOG NUMBER: S123RDR-H340D935-X4F0-XX-UDD-BVL-S

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	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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90			90	
2	105	99	94	89	102	97	92	88	94	90	86	90	87	85	88	85	83	81			81	
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73			73	
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66			66	
5	86	76	69	64	84	75	68	64	73	67	63	71	66	62	70	65	62	60			60	
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55			55	
7	76	65	58	53	75	64	58	53	63	57	53	62	56	52	61	56	52	50			50	
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46			46	
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43			43	
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	41	40			40	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2745	2745	2745
5°	2651	2697	2739
10°	2447	2558	2694
15°	2194	2364	2616
20°	1917	2131	2493
25°	1612	1876	2339
30°	1295	1600	2191
35°	948	1317	2050
40°	587	1025	1907
45°	226	772	1697
50°	111	530	1436
55°	88	293	1128
60°	59	244	756
65°	50	220	339
70°	48	196	196
75°	64	209	195
80°	95	264	216
85°	148	431	283

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 1697 cd/sqm



TEST NUMBER: P1059626

CATALOG NUMBER: S123RDR-H340D935-X4F0-XX-UDD-BVL-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.4	7.6
10°-20°	54.9	19.5
20°-30°	68.1	24.3
30°-40°	61.0	21.7
40°-50°	40.1	14.3
50°-60°	20.1	7.2
60°-70°	7.9	2.8
70°-80°	4.4	1.6
80°-90°	2.8	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°	144.4	51.4
0°-40°	205.5	73.2
0°-60°	265.7	94.6
0°-90°	280.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	280.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	234	234	234	234	234	
5°	225	228	229	230	232	21
15°	180	186	194	208	215	50
25°	124	132	145	165	180	57
35°	66	75	92	120	143	41
45°	14	22	46	78	102	13
55°	4	5	14	39	55	4
65°	2	5	8	10	12	2
75°	1	5	5	4	4	1
85°	1	3	3	3	2	1
90°	0	0	0	0	0	



TEST NUMBER: P1059626

CATALOG NUMBER: S123RDR-H340D935-X4F0-XX-UDD-BVL-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	233.8	233.8	233.8	233.8	233.8
2.5°	230.9	234.2	232.4	232.4	232.7
5°	224.9	228.4	228.8	230.2	232.4
7.5°	215.9	220.6	222.7	227.0	230.2
10°	205.2	210.2	214.5	222.0	225.9
12.5°	193.4	198.4	204.8	215.2	221.3
15°	180.5	186.3	194.5	207.7	215.2
17.5°	167.3	173.0	183.0	198.1	207.7
20°	153.4	159.8	170.5	187.7	199.5
22.5°	139.4	146.6	158.0	176.6	190.2
25°	124.4	132.3	144.8	165.2	180.5
27.5°	110.1	118.3	131.6	153.7	171.2
30°	95.5	103.7	118.0	141.9	161.6
32.5°	80.4	89.7	104.7	130.8	151.9
35°	66.1	75.1	91.9	120.1	143.0
37.5°	52.2	61.1	78.6	109.8	134.1
40°	38.3	47.5	66.9	99.7	124.4
42.5°	25.0	34.7	56.5	89.7	113.7
45°	13.6	22.5	46.5	78.3	102.2
47.5°	7.5	12.2	37.5	67.6	91.2
50°	6.1	6.8	29.0	57.6	78.6
52.5°	5.0	5.7	20.7	47.9	67.2
55°	4.3	5.0	14.3	38.6	55.1
57.5°	3.6	4.3	11.4	29.7	43.3
60°	2.5	4.3	10.4	21.8	32.2
62.5°	2.1	4.3	8.9	15.0	21.4
65°	1.8	5.0	7.9	10.0	12.2
67.5°	1.4	5.0	6.8	6.4	6.4
70°	1.4	5.0	5.7	5.4	5.7
72.5°	1.4	5.4	5.4	5.0	5.0
75°	1.4	4.6	4.6	4.3	4.3
77.5°	1.4	4.3	4.3	3.9	3.9
80°	1.4	3.9	3.9	3.6	3.2
82.5°	1.4	3.6	3.6	3.2	2.9
85°	1.1	3.2	3.2	3.2	2.1
87.5°	1.1	2.9	3.2	2.9	1.8
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1059626
 CATALOG NUMBER: S123RDR-H340D935-X4F0-XX-UDD-BVL-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	0.00	0.00	0.00	0.00	0.00	10.06	11.32	10.43	11.63	11.95
	3H	0.00	0.00	0.00	0.00	0.29	10.14	11.25	10.52	11.58	11.95
	4H	0.00	0.66	0.03	1.02	1.40	10.20	11.24	10.61	11.59	11.97
	6H	0.67	1.62	1.08	1.99	2.38	10.30	11.25	10.71	11.62	12.01
	8H	1.20	2.10	1.63	2.49	2.90	10.36	11.26	10.79	11.65	12.06
	12H	1.69	2.55	2.12	2.93	3.36	10.43	11.29	10.86	11.67	12.10
4H	2H	0.00	0.29	0.00	0.64	1.02	9.92	10.96	10.33	11.31	11.69
	3H	1.70	2.54	2.11	2.95	3.35	10.09	10.94	10.51	11.35	11.75
	4H	3.02	3.78	3.45	4.20	4.64	10.22	10.98	10.66	11.40	11.84
	6H	4.14	4.80	4.61	5.24	5.71	10.44	11.09	10.90	11.54	12.00
	8H	4.65	5.26	5.12	5.71	6.18	10.56	11.17	11.03	11.62	12.09
	12H	5.11	5.65	5.60	6.14	6.61	10.72	11.26	11.21	11.74	12.22
8H	4H	3.94	4.55	4.41	5.00	5.47	10.22	10.84	10.70	11.28	11.76
	6H	5.53	6.03	6.03	6.53	7.01	10.55	11.05	11.06	11.55	12.03
	8H	6.36	6.81	6.88	7.33	7.82	10.78	11.23	11.31	11.75	12.24
	12H	7.14	7.54	7.66	8.04	8.61	11.10	11.50	11.62	12.00	12.57
12H	4H	4.11	4.64	4.59	5.13	5.60	10.21	10.75	10.70	11.24	11.71
	6H	5.85	6.30	6.37	6.81	7.31	10.58	11.03	11.11	11.55	12.04
	8H	6.86	7.26	7.38	7.76	8.33	10.89	11.29	11.41	11.79	12.36