

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: P1059625

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059625
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-30)
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-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

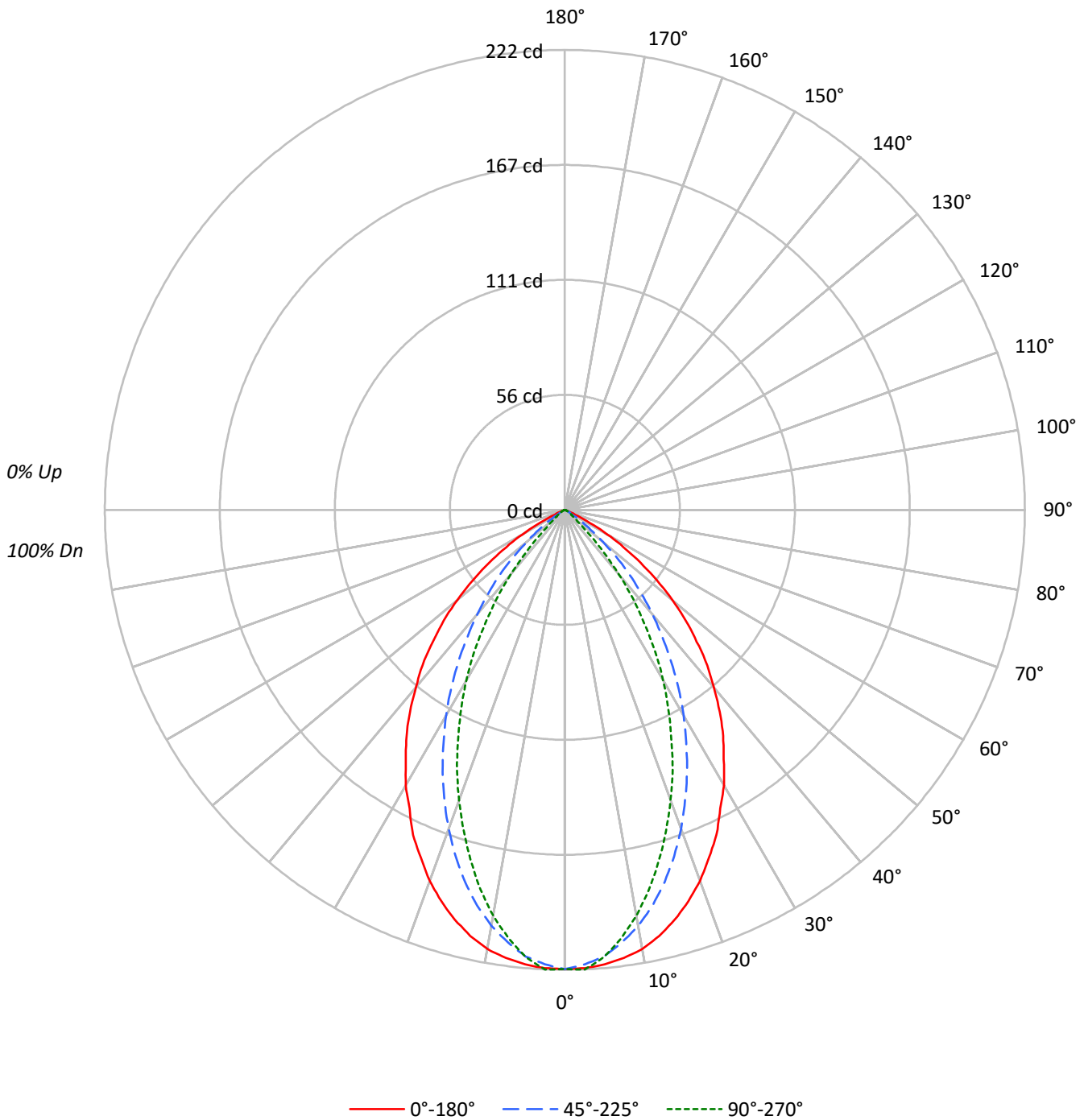
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 253.0 lumens
Efficiency: N/A
Efficacy: 21.6 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 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

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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	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78	76
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60	58
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51	49
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47	46
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2603	2603	2603
5°	2597	2551	2554
10°	2567	2431	2372
15°	2491	2261	2131
20°	2382	2048	1864
25°	2244	1809	1577
30°	2081	1554	1288
35°	1909	1284	958
40°	1712	1007	613
45°	1495	736	256
50°	1239	437	99
55°	913	182	74
60°	554	68	42
65°	150	39	19
70°	0	14	14
75°	0	0	18
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1495 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.4	8.1
10°-20°	52.7	20.8
20°-30°	65.6	25.9
30°-40°	58.7	23.2
40°-50°	37.1	14.6
50°-60°	15.5	6.1
60°-70°	2.9	1.2
70°-80°	0.1	0.0
80°-90°	0.0	0.0
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°	138.7	54.8
0°-40°	197.4	78.0
0°-60°	250.0	98.8
0°-90°	253.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	253.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	222	222	222	222	222	
5°	220	220	216	217	217	21
15°	205	200	186	178	175	58
25°	173	159	140	128	122	79
35°	133	114	90	74	67	83
45°	90	70	44	24	15	69
55°	45	31	9	4	4	40
65°	5	4	1	1	1	8
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	221.7	221.7	221.7	221.7	221.7
2.5°	221.4	221.7	219.6	221.7	222.1
5°	220.3	219.9	216.4	217.1	216.7
7.5°	218.1	217.1	210.6	209.2	208.5
10°	215.3	212.4	203.9	200.3	198.9
12.5°	210.6	206.7	195.6	189.9	187.8
15°	204.9	199.9	186.0	178.2	175.3
17.5°	198.1	191.0	175.3	166.7	162.4
20°	190.6	180.7	163.9	153.5	149.2
22.5°	181.7	170.7	151.7	140.7	136.0
25°	173.2	159.2	139.6	127.5	121.7
27.5°	162.4	147.8	126.7	114.2	108.2
30°	153.5	136.7	114.6	100.7	95.0
32.5°	142.8	125.3	102.1	86.8	81.4
35°	133.2	113.9	89.6	73.5	66.8
37.5°	122.8	102.8	77.1	60.3	53.9
40°	111.7	91.8	65.7	47.1	40.0
42.5°	101.8	80.7	54.3	35.0	27.8
45°	90.0	70.0	44.3	23.6	15.4
47.5°	79.3	60.0	33.6	13.2	8.2
50°	67.8	49.6	23.9	6.8	5.4
52.5°	56.1	39.6	15.7	4.6	4.3
55°	44.6	30.7	8.9	3.6	3.6
57.5°	33.6	22.1	4.6	2.9	2.5
60°	23.6	14.6	2.9	2.1	1.8
62.5°	13.6	8.6	2.1	1.4	1.4
65°	5.4	3.9	1.4	0.7	0.7
67.5°	0.4	1.1	0.7	0.4	0.4
70°	0.0	0.0	0.4	0.4	0.4
72.5°	0.0	0.0	0.4	0.4	0.4
75°	0.0	0.0	0.0	0.0	0.4
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

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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	8.51	9.69	8.87	10.00	10.31	0.00	0.00	0.00	0.00	0.00
	3H	8.35	9.38	8.73	9.71	10.08	0.00	0.00	0.00	0.00	0.00
	4H	8.26	9.22	8.67	9.57	9.96	0.00	0.00	0.00	0.00	0.00
	6H	8.17	9.04	8.59	9.42	9.81	0.00	0.00	0.00	0.00	0.00
	8H	8.12	8.94	8.55	9.33	9.74	0.00	0.00	0.00	0.00	0.00
	12H	8.07	8.85	8.50	9.24	9.67	0.00	0.00	0.00	0.00	0.00
4H	2H	8.27	9.22	8.67	9.57	9.96	0.00	0.00	0.00	0.00	0.00
	3H	8.10	8.87	8.52	9.28	9.68	0.00	0.00	0.00	0.00	0.00
	4H	8.00	8.68	8.43	9.10	9.55	0.00	0.00	0.00	0.00	0.00
	6H	7.90	8.49	8.37	8.93	9.41	0.00	0.00	0.00	0.00	0.00
	8H	7.84	8.38	8.31	8.83	9.30	0.00	0.00	0.00	0.00	0.00
	12H	7.78	8.26	8.27	8.74	9.22	0.00	0.00	0.00	0.00	0.00
8H	4H	7.84	8.38	8.31	8.83	9.30	0.00	0.00	0.00	0.00	0.00
	6H	7.72	8.16	8.23	8.66	9.14	0.00	0.00	0.00	0.00	0.00
	8H	7.65	8.04	8.18	8.56	9.06	0.00	0.00	0.00	0.00	0.00
	12H	7.59	7.94	8.11	8.44	9.02	0.00	0.00	0.00	0.00	0.00
12H	4H	7.78	8.26	8.27	8.74	9.22	0.00	0.00	0.00	0.00	0.00
	6H	7.65	8.04	8.18	8.56	9.06	0.00	0.00	0.00	0.00	0.00
	8H	7.59	7.94	8.11	8.44	9.02	0.00	0.00	0.00	0.00	0.00