

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: P1059608

Luminaire Tested: S123RDR-H340D927-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059608
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-H340D927-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: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

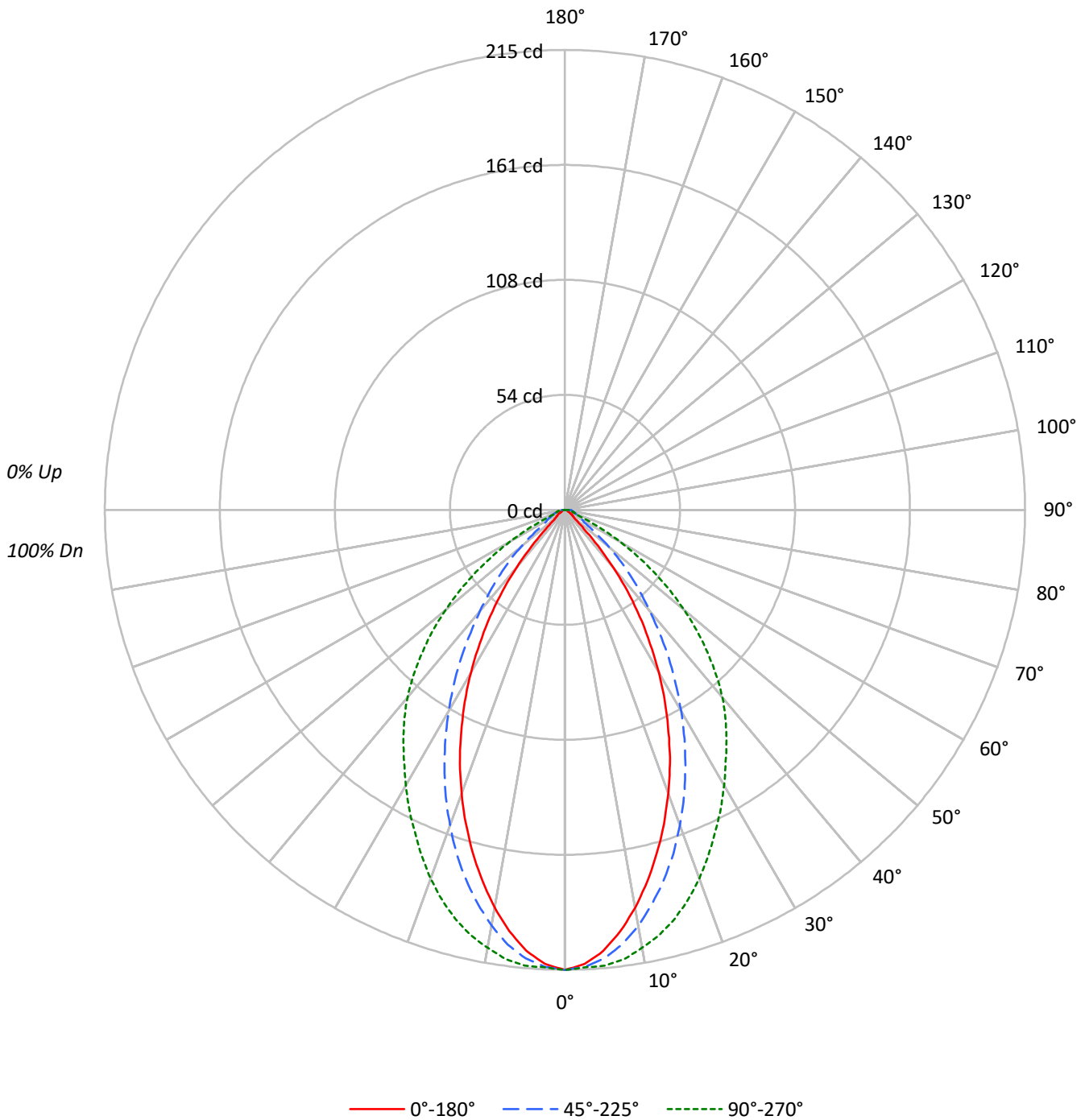
Lumens per Lamp: N/A
Luminaire Lumens: 258.4 lumens
Efficiency: N/A
Efficacy: 22.1 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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

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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	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	90	87	85	88	85	83	81
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66
5	86	76	69	64	84	75	68	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	64	58	53	63	57	53	62	56	52	61	56	52	50
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46
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	41	40

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2526	2526	2526
5°	2439	2481	2520
10°	2251	2354	2479
15°	2019	2175	2407
20°	1763	1961	2293
25°	1484	1726	2152
30°	1190	1471	2016
35°	873	1211	1886
40°	540	943	1755
45°	208	711	1563
50°	102	486	1323
55°	80	270	1038
60°	54	223	695
65°	44	200	311
70°	45	182	182
75°	59	195	177
80°	88	243	203
85°	135	404	269

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 1563 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.7	7.6
10°-20°	50.5	19.5
20°-30°	62.7	24.3
30°-40°	56.1	21.7
40°-50°	36.9	14.3
50°-60°	18.5	7.2
60°-70°	7.3	2.8
70°-80°	4.1	1.6
80°-90°	2.6	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°	132.9	51.4
0°-40°	189.0	73.2
0°-60°	244.4	94.6
0°-90°	258.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	258.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	215	215	215	215	215	
5°	207	210	210	212	214	19
15°	166	171	179	191	198	46
25°	114	122	133	152	166	52
35°	61	69	84	110	132	38
45°	12	21	43	72	94	12
55°	4	5	13	36	51	4
65°	2	5	7	9	11	2
75°	1	4	4	4	4	1
85°	1	3	3	3	2	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	215.1	215.1	215.1	215.1	215.1
2.5°	212.5	215.4	213.8	213.8	214.1
5°	206.9	210.2	210.5	211.8	213.8
7.5°	198.7	202.9	204.9	208.9	211.8
10°	188.8	193.4	197.4	204.3	207.9
12.5°	177.9	182.6	188.5	198.0	203.6
15°	166.1	171.4	178.9	191.1	198.0
17.5°	153.9	159.2	168.4	182.2	191.1
20°	141.1	147.0	156.9	172.7	183.5
22.5°	128.3	134.9	145.4	162.5	175.0
25°	114.5	121.7	133.2	152.0	166.1
27.5°	101.3	108.9	121.0	141.4	157.6
30°	87.8	95.4	108.5	130.6	148.7
32.5°	74.0	82.6	96.4	120.4	139.8
35°	60.9	69.1	84.5	110.5	131.6
37.5°	48.0	56.2	72.4	101.0	123.3
40°	35.2	43.7	61.5	91.8	114.5
42.5°	23.0	31.9	52.0	82.6	104.6
45°	12.5	20.7	42.8	72.0	94.1
47.5°	6.9	11.2	34.5	62.2	83.9
50°	5.6	6.2	26.6	53.0	72.4
52.5°	4.6	5.3	19.1	44.1	61.8
55°	3.9	4.6	13.2	35.5	50.7
57.5°	3.3	3.9	10.5	27.3	39.8
60°	2.3	3.9	9.5	20.1	29.6
62.5°	2.0	3.9	8.2	13.8	19.7
65°	1.6	4.6	7.2	9.2	11.2
67.5°	1.3	4.6	6.2	5.9	5.9
70°	1.3	4.6	5.3	4.9	5.3
72.5°	1.3	4.9	4.9	4.6	4.6
75°	1.3	4.3	4.3	3.9	3.9
77.5°	1.3	3.9	3.9	3.6	3.6
80°	1.3	3.6	3.6	3.3	3.0
82.5°	1.3	3.3	3.3	3.0	2.6
85°	1.0	3.0	3.0	3.0	2.0
87.5°	1.0	2.6	3.0	2.6	1.6
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	0.00	0.00	0.00	0.00	0.00	9.77	11.02	10.13	11.34	11.65
	3H	0.00	0.00	0.00	0.00	0.00	9.84	10.96	10.22	11.29	11.65
	4H	0.00	0.37	0.00	0.72	1.10	9.91	10.94	10.31	11.29	11.68
	6H	0.37	1.32	0.79	1.69	2.09	10.00	10.95	10.42	11.33	11.72
	8H	0.91	1.81	1.34	2.20	2.61	10.06	10.96	10.50	11.35	11.76
	12H	1.40	2.26	1.84	2.65	3.08	10.13	10.99	10.57	11.38	11.81
4H	2H	0.00	0.00	0.00	0.28	0.66	9.63	10.66	10.03	11.01	11.40
	3H	1.37	2.22	1.78	2.62	3.03	9.80	10.64	10.21	11.05	11.45
	4H	2.73	3.49	3.17	3.91	4.35	9.92	10.68	10.36	11.10	11.54
	6H	3.85	4.50	4.31	4.95	5.42	10.14	10.79	10.60	11.24	11.71
	8H	4.36	4.97	4.83	5.42	5.89	10.26	10.88	10.73	11.32	11.79
	12H	4.83	5.36	5.31	5.85	6.32	10.43	10.97	10.91	11.45	11.93
8H	4H	3.64	4.25	4.11	4.70	5.17	9.92	10.54	10.39	10.98	11.45
	6H	5.23	5.73	5.73	6.23	6.71	10.26	10.76	10.76	11.25	11.74
	8H	6.07	6.52	6.59	7.03	7.53	10.49	10.94	11.01	11.46	11.95
	12H	6.86	7.26	7.38	7.76	8.33	10.82	11.22	11.34	11.71	12.29
12H	4H	3.81	4.35	4.30	4.83	5.31	9.91	10.45	10.40	10.94	11.41
	6H	5.55	6.00	6.07	6.52	7.01	10.29	10.74	10.81	11.25	11.75
	8H	6.57	6.97	7.09	7.46	8.04	10.60	11.00	11.12	11.50	12.07