

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: P1060796

Luminaire Tested: S124RDR-H350D835-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060796
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-78)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H350D835-X4F0-XX-UDD-BVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

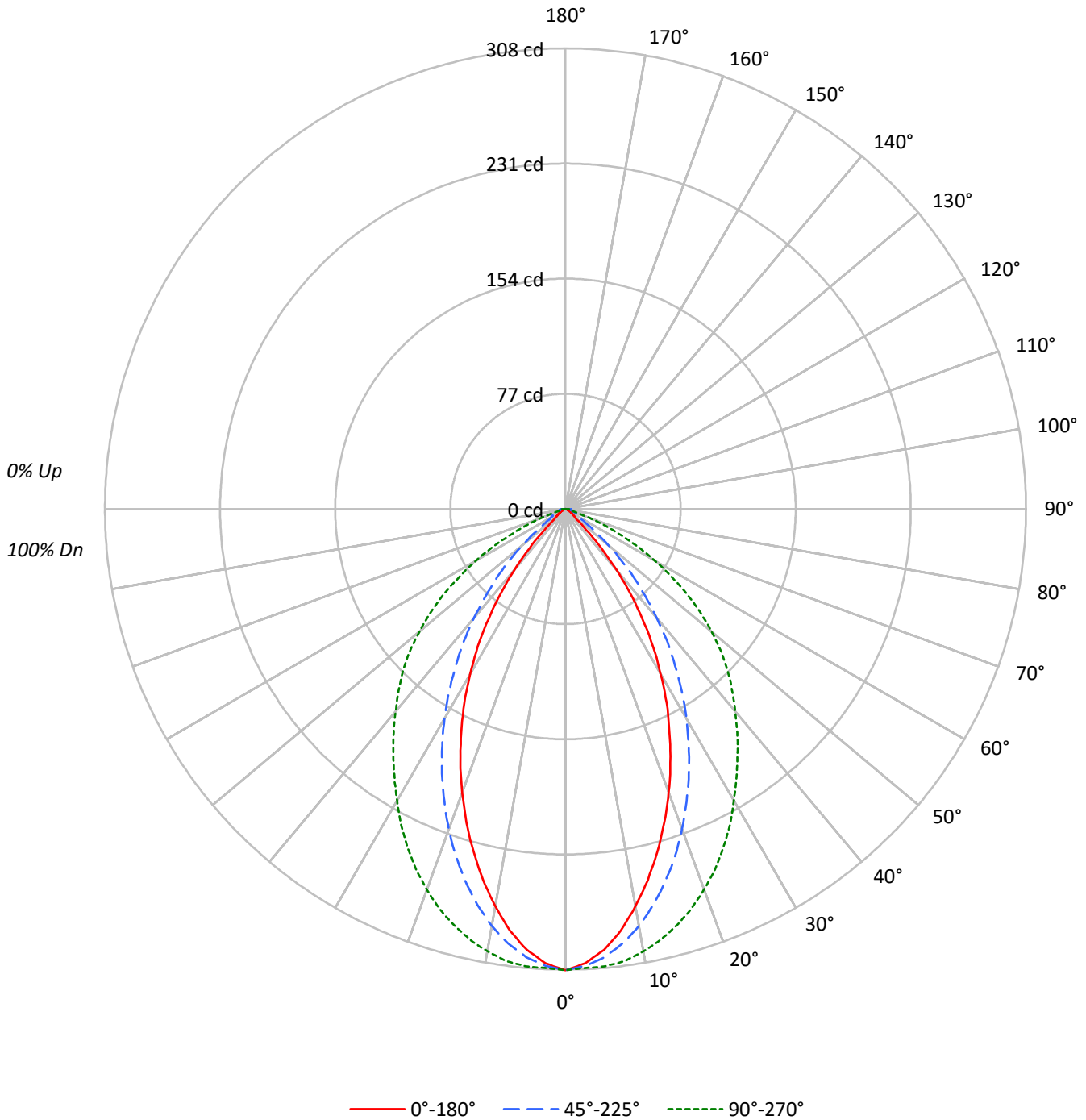
Lumens per Lamp: N/A
Luminaire Lumens: 387.3 lumens
Efficiency: N/A
Efficacy: 33.1 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	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	93	90	86	90	87	84	87	85	83	81				
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73				
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65				
5	86	76	68	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59				
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54				
7	76	64	57	52	74	64	57	52	62	56	52	61	56	51	60	55	51	50				
8	71	60	53	48	70	59	53	48	58	52	48	57	51	47	56	51	47	46				
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42				
10	64	52	46	41	62	52	45	41	51	45	41	50	45	41	49	44	41	39				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2657	2657	2657
5°	2558	2600	2653
10°	2358	2476	2627
15°	2116	2299	2568
20°	1850	2089	2482
25°	1565	1856	2372
30°	1264	1609	2239
35°	941	1345	2109
40°	597	1066	1984
45°	239	782	1872
50°	104	498	1708
55°	80	258	1491
60°	57	176	1183
65°	41	175	807
70°	40	154	370
75°	53	163	150
80°	79	183	164
85°	158	326	247

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 1872 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.2	7.3
10°-20°	72.8	18.8
20°-30°	92.0	23.8
30°-40°	84.5	21.8
40°-50°	57.6	14.9
50°-60°	31.3	8.1
60°-70°	13.3	3.4
70°-80°	4.6	1.2
80°-90°	2.9	0.8
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°	193.1	49.9
0°-40°	277.6	71.7
0°-60°	366.5	94.6
0°-90°	387.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	387.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	308	308	308	308	308	
5°	296	300	301	303	307	27
15°	237	245	258	276	288	66
25°	165	175	195	226	250	75
35°	90	101	128	168	201	56
45°	20	32	64	114	154	18
55°	5	6	17	62	99	5
65°	2	2	9	20	40	2
75°	2	4	5	4	4	2
85°	2	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°	308.5	308.5	308.5	308.5	308.5
2.5°	304.0	307.7	305.7	306.5	307.3
5°	295.9	300.4	300.8	303.2	306.9
7.5°	284.4	289.7	293.0	299.1	304.9
10°	269.7	276.3	283.2	293.0	300.4
12.5°	254.2	261.1	271.3	285.2	295.0
15°	237.4	245.2	257.9	276.3	288.1
17.5°	219.9	228.4	243.6	265.2	280.3
20°	201.9	211.3	228.0	252.5	270.9
22.5°	183.5	193.3	211.7	239.5	261.1
25°	164.7	175.3	195.3	225.6	249.7
27.5°	146.7	156.5	178.6	211.7	238.2
30°	127.1	138.1	161.8	197.4	225.2
32.5°	109.1	119.7	144.7	182.7	212.9
35°	89.5	101.3	127.9	168.0	200.6
37.5°	71.1	82.5	111.6	154.1	188.8
40°	53.1	65.0	94.8	140.2	176.5
42.5°	35.6	48.2	78.9	125.9	165.1
45°	19.6	31.5	64.2	113.6	153.7
47.5°	10.2	17.2	50.3	101.3	141.4
50°	7.8	9.4	37.2	87.9	127.5
52.5°	6.5	6.9	25.3	74.4	113.6
55°	5.3	5.7	17.2	62.5	99.3
57.5°	4.1	4.5	12.3	51.1	83.4
60°	3.3	3.7	10.2	39.2	68.7
62.5°	2.5	2.9	9.8	29.0	53.9
65°	2.0	2.5	8.6	19.6	39.6
67.5°	1.6	2.5	7.4	12.7	26.6
70°	1.6	3.3	6.1	8.2	14.7
72.5°	1.6	3.7	5.3	5.3	5.3
75°	1.6	4.5	4.9	4.5	4.5
77.5°	1.6	4.1	4.1	4.1	4.1
80°	1.6	3.7	3.7	3.7	3.3
82.5°	1.6	3.3	3.7	3.7	2.9
85°	1.6	3.3	3.3	3.3	2.5
87.5°	1.2	3.3	3.3	3.3	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	11.84	13.11	12.20	13.43	13.74
	3H	0.00	0.00	0.00	0.00	0.00	12.20	13.32	12.58	13.65	14.02
	4H	0.00	0.00	0.00	0.00	0.00	12.16	13.21	12.57	13.56	13.95
	6H	0.00	0.00	0.00	0.00	0.00	12.14	13.10	12.55	13.47	13.87
	8H	0.00	0.00	0.00	0.05	0.45	12.13	13.04	12.56	13.43	13.84
	12H	0.00	0.40	0.00	0.79	1.22	12.13	13.00	12.56	13.38	13.81
4H	2H	0.00	0.00	0.00	0.00	0.00	11.64	12.69	12.05	13.04	13.43
	3H	0.00	0.00	0.00	0.23	0.63	12.04	12.89	12.45	13.30	13.70
	4H	0.41	1.18	0.85	1.60	2.04	12.02	12.78	12.45	13.20	13.65
	6H	1.65	2.31	2.11	2.76	3.22	12.04	12.70	12.50	13.14	13.61
	8H	2.21	2.83	2.68	3.28	3.75	12.05	12.66	12.52	13.11	13.58
	12H	2.88	3.42	3.37	3.91	4.38	12.09	12.63	12.57	13.11	13.59
8H	4H	1.49	2.10	1.96	2.55	3.02	11.92	12.53	12.39	12.98	13.45
	6H	3.10	3.60	3.60	4.10	4.58	11.97	12.47	12.47	12.97	13.45
	8H	3.94	4.39	4.46	4.90	5.40	12.03	12.48	12.55	13.00	13.49
	12H	4.90	5.30	5.42	5.79	6.37	12.15	12.55	12.66	13.04	13.62
12H	4H	1.68	2.22	2.17	2.70	3.18	11.88	12.42	12.37	12.91	13.38
	6H	3.45	3.90	3.97	4.42	4.91	11.94	12.39	12.46	12.91	13.40
	8H	4.48	4.87	4.99	5.37	5.94	12.04	12.44	12.56	12.94	13.51