

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: P1060818

Luminaire Tested: S124RDR-H350D850-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060818
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-74)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H350D850-X4F0-XX-UDD-SVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

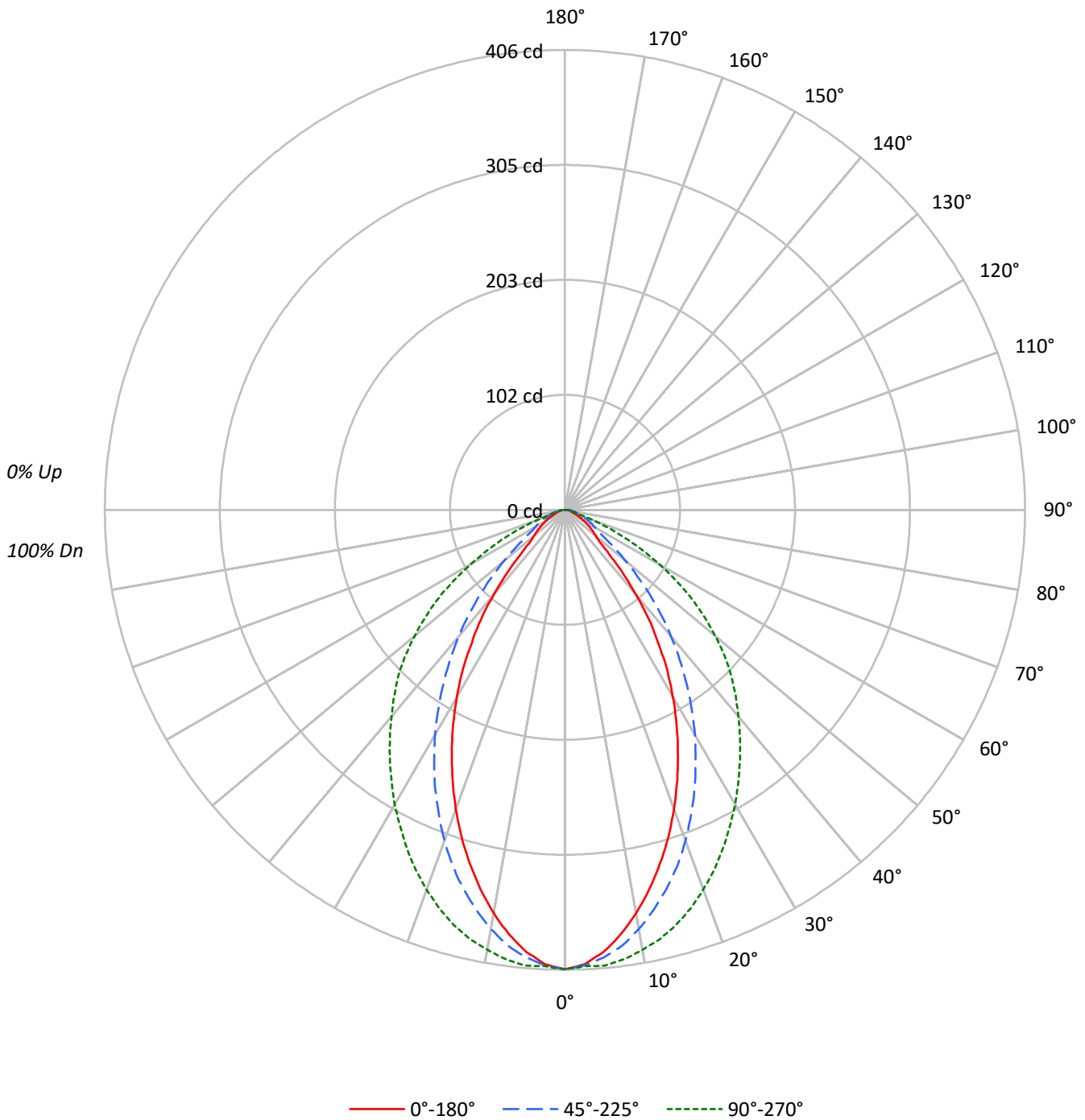
Lumens per Lamp: N/A
Luminaire Lumens: 574.1 lumens
Efficiency: N/A
Efficacy: 49.1 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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				100
1	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79				79
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70				70
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63				63
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57				57
6	79	67	60	54	77	67	59	54	65	59	54	63	58	53	62	57	53	51				51
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47				47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43				43
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39				39
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36				36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3493	3493	3493
5°	3385	3427	3490
10°	3162	3285	3448
15°	2885	3086	3381
20°	2579	2849	3269
25°	2243	2575	3134
30°	1892	2280	2988
35°	1505	1963	2830
40°	1095	1636	2674
45°	662	1291	2533
50°	473	935	2319
55°	401	632	2048
60°	327	515	1655
65°	259	463	1192
70°	217	388	627
75°	196	363	316
80°	203	362	312
85°	267	534	356

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2533 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.3	6.5
10°-20°	97.9	17.0
20°-30°	126.9	22.1
30°-40°	122.2	21.3
40°-50°	90.9	15.8
50°-60°	55.9	9.7
60°-70°	27.5	4.8
70°-80°	10.7	1.9
80°-90°	4.9	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°	262.1	45.7
0°-40°	384.3	66.9
0°-60°	531.0	92.5
0°-90°	574.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	574.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	406	406	406	406	406	
5°	392	397	396	400	404	36
15°	324	334	346	367	379	90
25°	236	249	271	305	330	108
35°	143	157	187	233	269	89
45°	54	68	106	164	208	45
55°	27	28	42	96	136	24
65°	13	14	23	36	58	13
75°	6	10	11	10	10	6
85°	3	5	5	5	4	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	405.6	405.6	405.6	405.6	405.6
2.5°	401.5	406.1	402.4	402.9	403.3
5°	391.6	397.4	396.5	400.2	403.8
7.5°	378.0	384.8	387.9	395.2	400.2
10°	361.6	369.3	375.7	387.5	394.3
12.5°	343.5	352.6	361.6	377.5	387.9
15°	323.6	334.0	346.2	367.1	379.3
17.5°	303.2	313.6	329.5	353.5	368.9
20°	281.4	292.8	310.9	337.6	356.7
22.5°	258.8	271.0	290.9	321.3	344.0
25°	236.1	248.8	271.0	305.0	329.9
27.5°	213.5	225.7	249.7	287.8	315.0
30°	190.3	203.0	229.3	269.2	300.5
32.5°	168.1	179.9	208.0	251.5	284.6
35°	143.2	156.8	186.7	233.4	269.2
37.5°	121.9	134.1	166.3	215.3	253.8
40°	97.4	111.0	145.5	197.6	237.9
42.5°	74.8	88.4	125.5	179.9	223.0
45°	54.4	67.5	106.0	163.6	208.0
47.5°	41.2	48.9	87.0	147.7	191.2
50°	35.3	37.6	69.8	130.5	173.1
52.5°	31.3	32.2	54.4	113.3	155.0
55°	26.7	27.6	42.1	96.1	136.4
57.5°	22.7	23.1	34.0	79.8	116.5
60°	19.0	19.5	29.9	63.9	96.1
62.5°	15.9	16.3	26.7	49.4	76.6
65°	12.7	13.6	22.7	36.3	58.5
67.5°	10.4	12.2	19.0	25.4	40.8
70°	8.6	11.8	15.4	17.7	24.9
72.5°	7.3	10.9	13.1	12.7	12.2
75°	5.9	10.4	10.9	10.0	9.5
77.5°	5.0	9.1	9.1	8.2	7.7
80°	4.1	7.3	7.3	7.3	6.3
82.5°	3.6	5.9	6.3	6.3	5.0
85°	2.7	5.0	5.4	5.4	3.6
87.5°	1.8	4.5	5.0	4.5	2.7
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	4.13	5.47	4.49	5.78	6.10	13.30	14.64	13.67	14.96	15.27
	3H	5.24	6.43	5.62	6.76	7.12	13.81	15.00	14.19	15.33	15.69
	4H	5.76	6.87	6.16	7.22	7.60	13.83	14.94	14.23	15.29	15.67
	6H	6.20	7.22	6.61	7.59	7.98	13.84	14.86	14.25	15.23	15.62
	8H	6.38	7.35	6.81	7.74	8.15	13.84	14.81	14.27	15.20	15.60
	12H	6.56	7.49	7.00	7.87	8.30	13.84	14.77	14.28	15.15	15.58
4H	2H	5.28	6.39	5.68	6.74	7.12	13.19	14.30	13.60	14.65	15.04
	3H	6.62	7.53	7.03	7.93	8.33	13.78	14.69	14.19	15.09	15.50
	4H	7.35	8.16	7.78	8.58	9.02	13.84	14.65	14.28	15.07	15.52
	6H	7.97	8.67	8.43	9.11	9.58	13.92	14.62	14.38	15.07	15.53
	8H	8.21	8.86	8.68	9.31	9.78	13.95	14.60	14.42	15.05	15.52
	12H	8.44	9.02	8.93	9.50	9.98	13.99	14.57	14.47	15.05	15.52
8H	4H	7.82	8.48	8.29	8.92	9.39	13.80	14.46	14.27	14.90	15.37
	6H	8.68	9.21	9.18	9.71	10.19	13.93	14.47	14.43	14.96	15.44
	8H	9.08	9.57	9.60	10.08	10.57	14.01	14.49	14.53	15.01	15.50
	12H	9.50	9.93	10.02	10.43	11.00	14.13	14.56	14.64	15.05	15.62
12H	4H	7.87	8.45	8.36	8.94	9.41	13.77	14.35	14.26	14.84	15.31
	6H	8.81	9.29	9.33	9.81	10.30	13.91	14.39	14.43	14.91	15.40
	8H	9.33	9.76	9.84	10.25	10.82	14.04	14.47	14.56	14.96	15.53