

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: P1060950

Luminaire Tested: S124RDR-H795D830-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060950
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-75)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H795D830-X4F0-XX-UDD-BVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

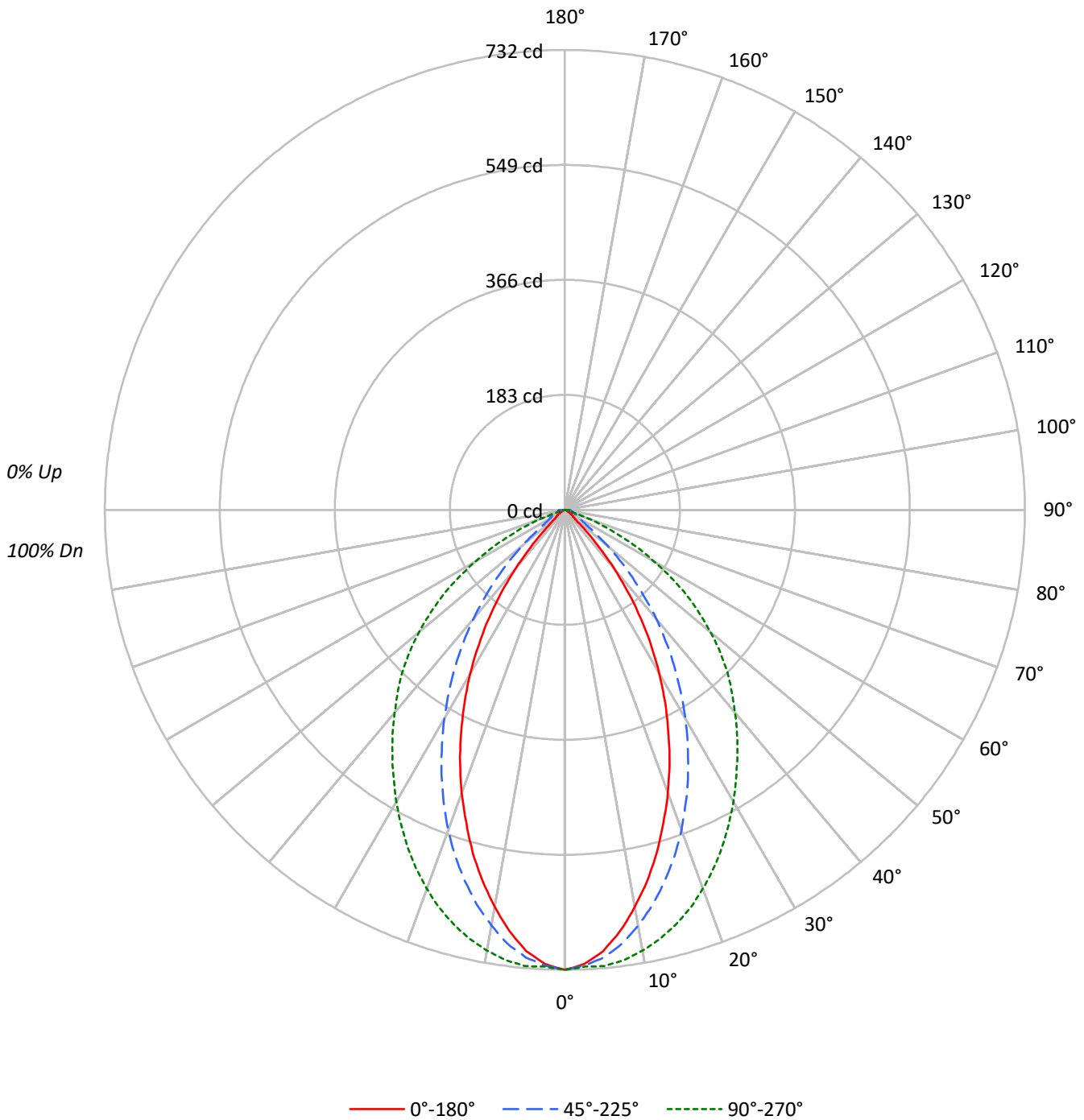
Lumens per Lamp: N/A
Luminaire Lumens: 922.6 lumens
Efficiency: N/A
Efficacy: 39.3 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.96
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.5
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	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81				
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72				
4	91	82	75	70	89	81	75	70	79	73	69	76	72	68	74	70	67	65				
5	86	75	68	63	84	74	68	63	72	67	62	71	66	62	69	65	61	59				
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56	54				
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49				
8	71	60	53	48	70	59	52	48	58	52	48	57	51	47	56	51	47	45				
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42				
10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6304	6304	6304
5°	6091	6180	6298
10°	5612	5875	6228
15°	5040	5461	6090
20°	4393	4969	5881
25°	3706	4409	5625
30°	2990	3810	5332
35°	2213	3188	5031
40°	1371	2540	4732
45°	544	1852	4457
50°	241	1163	4051
55°	194	607	3548
60°	133	458	2826
65°	88	454	1944
70°	86	410	909
75°	113	399	399
80°	169	471	471
85°	336	939	682

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4457 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.2	7.3
10°-20°	173.3	18.8
20°-30°	218.8	23.7
30°-40°	200.7	21.8
40°-50°	136.7	14.8
50°-60°	74.5	8.1
60°-70°	32.2	3.5
70°-80°	11.7	1.3
80°-90°	7.6	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°	459.2	49.8
0°-40°	659.9	71.5
0°-60°	871.1	94.4
0°-90°	922.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	922.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	732	732	732	732	732	
5°	705	714	715	723	729	65
15°	565	585	613	656	683	157
25°	390	418	464	538	592	178
35°	210	241	303	400	479	130
45°	45	75	152	270	366	42
55°	13	14	40	149	236	11
65°	4	6	22	46	95	5
75°	3	11	12	12	12	4
85°	3	8	10	10	7	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	732.1	732.1	732.1	732.1	732.1
2.5°	723.5	732.1	726.0	727.8	727.8
5°	704.6	714.0	714.9	722.6	728.6
7.5°	676.2	690.0	696.8	712.3	722.6
10°	641.8	658.2	671.9	698.6	712.3
12.5°	604.9	623.8	644.4	679.6	699.4
15°	565.4	585.1	612.6	656.4	683.1
17.5°	521.6	545.6	579.1	631.5	664.2
20°	479.4	503.5	542.2	601.5	641.8
22.5°	435.6	460.5	503.5	569.7	617.8
25°	390.1	417.6	464.0	537.9	592.0
27.5°	345.4	374.6	423.6	504.4	564.5
30°	300.7	329.9	383.2	470.0	536.2
32.5°	255.2	285.3	342.8	433.9	506.9
35°	210.5	241.4	303.3	399.5	478.6
37.5°	165.0	197.6	263.8	366.0	450.2
40°	122.0	154.7	226.0	332.5	421.0
42.5°	81.6	114.3	187.3	299.9	393.5
45°	44.7	74.8	152.1	269.8	366.0
47.5°	24.1	41.2	117.7	240.6	335.1
50°	18.0	22.3	86.8	209.7	302.4
52.5°	15.5	17.2	60.1	177.0	269.8
55°	12.9	13.7	40.4	148.6	236.3
57.5°	10.3	11.2	30.1	120.3	200.2
60°	7.7	9.5	26.6	92.8	164.1
62.5°	6.0	7.7	24.9	67.9	129.7
65°	4.3	6.0	22.3	46.4	95.4
67.5°	4.3	6.9	18.9	30.1	64.4
70°	3.4	9.5	16.3	19.8	36.1
72.5°	3.4	10.3	13.7	13.7	13.7
75°	3.4	11.2	12.0	12.0	12.0
77.5°	3.4	10.3	11.2	10.3	10.3
80°	3.4	9.5	9.5	9.5	9.5
82.5°	3.4	8.6	9.5	9.5	7.7
85°	3.4	7.7	9.5	9.5	6.9
87.5°	2.6	7.7	8.6	8.6	5.2
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	14.81	16.08	15.17	16.40	16.71
	3H	0.00	0.01	0.00	0.34	0.70	15.18	16.31	15.56	16.64	17.01
	4H	0.08	1.14	0.49	1.49	1.87	15.16	16.21	15.56	16.56	16.95
	6H	1.26	2.22	1.67	2.59	2.99	15.15	16.11	15.56	16.49	16.88
	8H	1.84	2.75	2.27	3.15	3.55	15.15	16.06	15.58	16.45	16.86
	12H	2.50	3.38	2.94	3.76	4.19	15.16	16.04	15.59	16.42	16.85
4H	2H	1.05	2.10	1.45	2.45	2.84	14.62	15.67	15.02	16.02	16.40
	3H	2.63	3.49	3.05	3.90	4.30	15.04	15.89	15.45	16.30	16.70
	4H	3.93	4.70	4.37	5.12	5.56	15.03	15.80	15.47	16.22	16.67
	6H	5.06	5.72	5.52	6.16	6.63	15.07	15.74	15.54	16.18	16.65
	8H	5.56	6.18	6.03	6.63	7.10	15.10	15.72	15.57	16.17	16.64
	12H	6.11	6.65	6.59	7.14	7.61	15.17	15.71	15.65	16.20	16.67
8H	4H	5.01	5.63	5.48	6.08	6.55	14.94	15.56	15.41	16.01	16.48
	6H	6.56	7.07	7.06	7.56	8.05	15.02	15.53	15.53	16.03	16.51
	8H	7.37	7.82	7.89	8.34	8.83	15.11	15.56	15.63	16.08	16.57
	12H	8.19	8.59	8.71	9.09	9.66	15.28	15.68	15.79	16.18	16.75
12H	4H	5.21	5.75	5.69	6.23	6.71	14.91	15.45	15.39	15.94	16.41
	6H	6.92	7.37	7.44	7.89	8.38	15.00	15.45	15.52	15.97	16.46
	8H	7.93	8.33	8.45	8.83	9.40	15.14	15.54	15.65	16.03	16.60