

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1060225

Luminaire Tested: S124RDRP-S1020D830-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060225
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-37)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-S1020D830-X4F0-XX-UDD-WVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

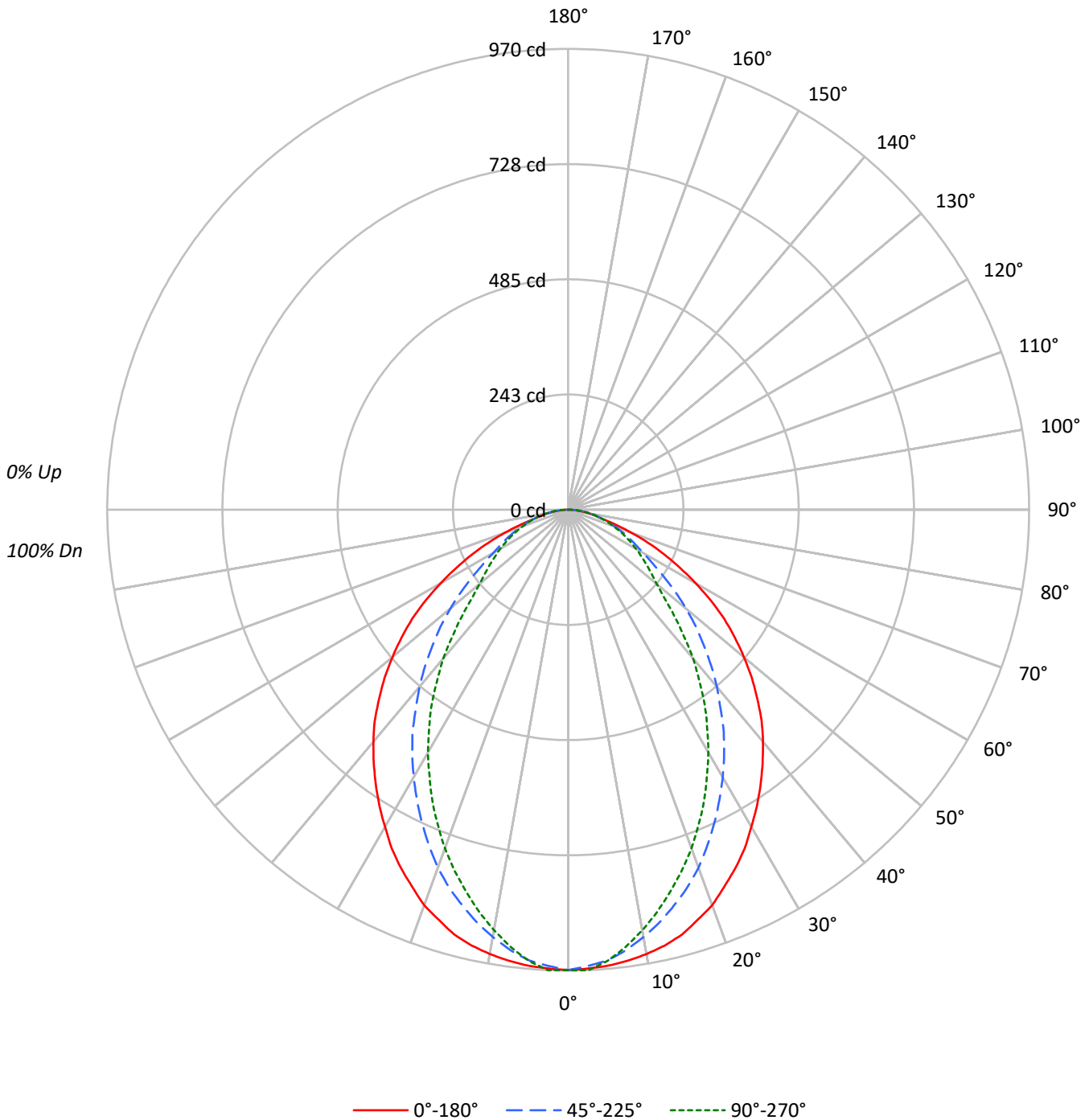
Lumens per Lamp: N/A
Luminaire Lumens: 1868.6 lumens
Efficiency: N/A
Efficacy: 53.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): 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																		
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	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	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86																												
2	101	94	88	83	99	92	86	82	89	84	80	85	82	78	82	79	76	74																												
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66	64																												
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56																												
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																												
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44																												
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40																												
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38	36																												
9	61	48	40	35	59	48	40	35	46	40	35	45	39	35	44	39	35	33																												
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	30																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8345	8345	8345
5°	8328	8229	8239
10°	8304	7986	7856
15°	8253	7685	7411
20°	8118	7347	6950
25°	7909	6914	6427
30°	7665	6465	5866
35°	7422	5997	5267
40°	7168	5465	4595
45°	6850	4909	3841
50°	6468	4332	3250
55°	6017	3675	3009
60°	5334	3119	2843
65°	4548	2877	2692
70°	3555	2666	2550
75°	2425	2462	2462
80°	2088	2316	2370
85°	1798	2253	2480

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6850 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.2	4.8
10°-20°	244.9	13.1
20°-30°	339.9	18.2
30°-40°	364.4	19.5
40°-50°	322.8	17.3
50°-60°	243.3	13.0
60°-70°	157.5	8.4
70°-80°	80.8	4.3
80°-90°	24.8	1.3
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°	674.9	36.1
0°-40°	1039.3	55.6
0°-60°	1605.4	85.9
0°-90°	1868.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1868.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	969	969	969	969	969	
5°	963	964	952	953	953	92
15°	926	905	862	840	831	260
25°	832	788	728	689	676	383
35°	706	642	570	519	501	441
45°	562	490	403	340	315	434
55°	401	334	245	206	200	356
65°	223	180	141	133	132	221
75°	73	76	74	74	74	86
85°	18	19	23	25	25	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	969.1	969.1	969.1	969.1	969.1
2.5°	966.8	970.2	961.1	967.9	970.2
5°	963.4	964.5	952.0	953.1	953.1
7.5°	957.7	955.4	934.9	929.2	928.1
10°	949.7	942.9	913.3	901.9	898.5
12.5°	939.5	926.9	889.4	873.4	866.6
15°	925.8	905.3	862.0	840.4	831.3
17.5°	905.3	879.1	833.6	806.2	796.0
20°	885.9	850.6	801.7	767.5	758.4
22.5°	858.6	821.0	765.2	728.8	717.4
25°	832.4	788.0	727.7	688.9	676.4
27.5°	804.0	753.8	688.9	647.9	632.0
30°	770.9	717.4	650.2	606.9	589.9
32.5°	739.0	682.1	610.4	562.5	544.3
35°	706.0	642.2	570.5	519.3	501.0
37.5°	671.9	604.7	526.1	476.0	452.1
40°	637.7	567.1	486.2	429.3	408.8
42.5°	602.4	528.4	445.2	386.0	359.8
45°	562.5	489.7	403.1	340.5	315.4
47.5°	523.8	452.1	364.4	296.1	273.3
50°	482.8	412.2	323.4	257.4	242.6
52.5°	441.8	371.2	283.5	227.7	220.9
55°	400.8	333.7	244.8	206.1	200.4
57.5°	355.3	294.9	210.7	186.8	182.2
60°	309.7	252.8	181.1	168.5	165.1
62.5°	265.3	216.4	160.6	150.3	148.0
65°	223.2	179.9	141.2	133.2	132.1
67.5°	182.2	148.0	123.0	118.4	116.2
70°	141.2	118.4	105.9	103.6	101.3
72.5°	104.8	95.7	90.0	88.8	87.7
75°	72.9	76.3	74.0	74.0	74.0
77.5°	58.1	59.2	60.4	61.5	60.4
80°	42.1	45.5	46.7	49.0	47.8
82.5°	29.6	31.9	35.3	36.4	37.6
85°	18.2	19.4	22.8	25.1	25.1
87.5°	8.0	9.1	11.4	13.7	14.8
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	17.81	19.31	18.18	19.62	19.94	14.38	15.87	14.74	16.19	16.50
	3H	19.01	20.36	19.39	20.69	21.05	16.07	17.41	16.45	17.74	18.10
	4H	19.32	20.58	19.72	20.93	21.31	16.75	18.01	17.15	18.36	18.74
	6H	19.52	20.69	19.94	21.05	21.45	17.30	18.46	17.71	18.83	19.22
	8H	19.58	20.69	20.01	21.08	21.48	17.51	18.62	17.94	19.01	19.41
	12H	19.62	20.68	20.05	21.06	21.49	17.69	18.75	18.12	19.13	19.56
4H	2H	17.95	19.21	18.35	19.56	19.94	15.04	16.30	15.44	16.64	17.02
	3H	19.35	20.40	19.76	20.80	21.20	16.95	17.99	17.36	18.39	18.79
	4H	19.78	20.72	20.21	21.14	21.58	17.75	18.69	18.18	19.10	19.54
	6H	20.10	20.92	20.56	21.37	21.83	18.44	19.25	18.89	19.70	20.16
	8H	20.20	20.97	20.67	21.41	21.88	18.71	19.47	19.17	19.92	20.38
	12H	20.27	20.96	20.76	21.43	21.91	18.94	19.62	19.42	20.10	20.57
8H	4H	19.91	20.67	20.37	21.12	21.58	18.06	18.83	18.53	19.27	19.74
	6H	20.33	20.96	20.83	21.45	21.93	18.89	19.52	19.39	20.02	20.49
	8H	20.49	21.05	21.00	21.56	22.05	19.26	19.83	19.77	20.34	20.82
	12H	20.61	21.12	21.12	21.61	22.17	19.59	20.09	20.10	20.59	21.15
12H	4H	19.91	20.60	20.40	21.07	21.55	18.09	18.77	18.57	19.25	19.72
	6H	20.35	20.92	20.87	21.43	21.92	18.95	19.52	19.47	20.03	20.52
	8H	20.56	21.06	21.07	21.56	22.12	19.38	19.89	19.89	20.38	20.94