

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: P1060222

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060222
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-38)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-S1020D830-X4F0-XX-UDD-SVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

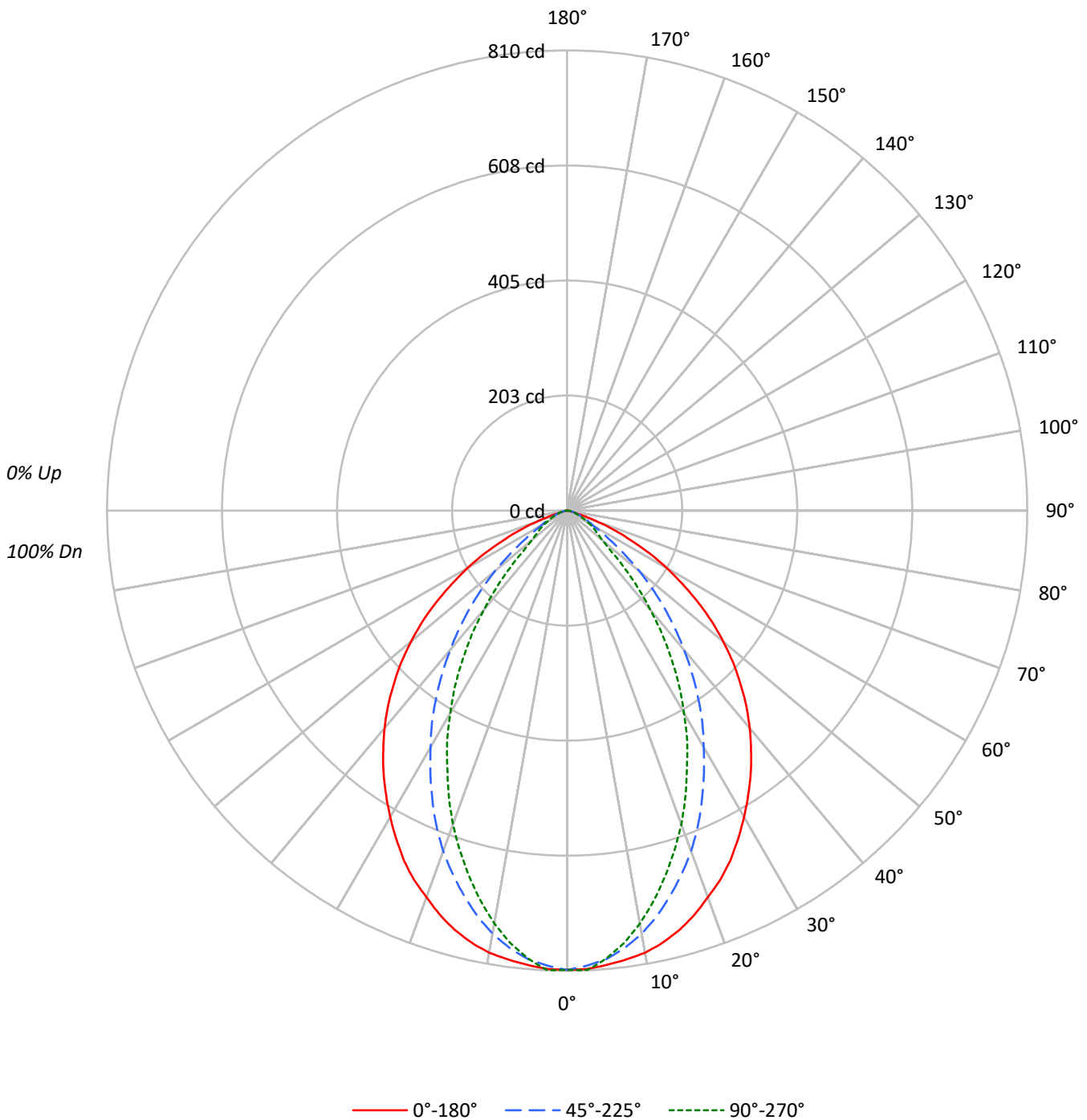
Lumens per Lamp: N/A
Luminaire Lumens: 1192.0 lumens
Efficiency: N/A
Efficacy: 34.1 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.87 / 1.02
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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					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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	112	108	105	102	109	106	103	101	102	100	97	98	96	94	95	93	92	90					90			
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80					80			
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73	71					71			
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63					63			
5	84	74	66	61	82	73	66	60	71	65	60	69	63	59	67	62	59	57					57			
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51					51			
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	48	47					47			
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	44	43					43			
9	65	53	46	41	64	53	46	41	52	46	41	51	45	41	50	45	41	39					39			
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36					36			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6962	6962	6962
5°	6939	6851	6841
10°	6910	6611	6452
15°	6812	6254	5939
20°	6636	5844	5385
25°	6459	5334	4739
30°	6194	4778	4088
35°	5926	4226	3375
40°	5619	3597	2560
45°	5256	2940	1720
50°	4805	2228	1068
55°	4223	1470	907
60°	3491	902	746
65°	2529	697	603
70°	1377	516	458
75°	303	379	416
80°	228	283	337
85°	227	227	336

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5256 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.9	6.3
10°-20°	199.0	16.7
20°-30°	263.6	22.1
30°-40°	261.6	21.9
40°-50°	201.3	16.9
50°-60°	120.0	10.1
60°-70°	54.5	4.6
70°-80°	14.1	1.2
80°-90°	3.1	0.3
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°	537.4	45.1
0°-40°	799.0	67.0
0°-60°	1120.2	94.0
0°-90°	1192.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1192.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	808	808	808	808	808	
5°	803	804	793	793	791	76
15°	764	745	702	678	666	215
25°	680	631	561	515	499	312
35°	564	493	402	340	321	352
45°	432	347	241	168	141	332
55°	281	200	98	62	60	251
65°	124	74	34	30	30	125
75°	9	11	11	12	12	19
85°	2	2	2	3	3	2
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	808.5	808.5	808.5	808.5	808.5
2.5°	807.4	808.5	801.7	807.4	809.6
5°	802.8	803.9	792.6	792.6	791.4
7.5°	797.1	794.8	776.6	769.8	767.5
10°	790.3	782.3	756.1	742.5	737.9
12.5°	778.9	766.4	731.1	711.7	703.7
15°	764.1	744.7	701.5	677.5	666.2
17.5°	745.9	722.0	670.7	640.0	627.4
20°	724.2	692.3	637.7	599.0	587.6
22.5°	703.7	663.9	601.3	556.8	544.3
25°	679.8	630.9	561.4	514.7	498.8
27.5°	651.4	599.0	521.5	473.7	457.8
30°	622.9	564.8	480.5	430.4	411.1
32.5°	593.3	529.5	443.0	386.0	367.8
35°	563.7	493.1	402.0	340.5	321.1
37.5°	531.8	456.6	361.0	297.2	275.6
40°	499.9	421.3	320.0	255.1	227.7
42.5°	466.9	384.9	280.1	211.8	184.5
45°	431.6	347.3	241.4	168.5	141.2
47.5°	396.3	312.0	202.7	126.4	101.3
50°	358.7	274.4	166.3	92.2	79.7
52.5°	321.1	238.0	129.8	71.7	68.3
55°	281.3	200.4	97.9	61.5	60.4
57.5°	240.3	166.3	70.6	53.5	51.2
60°	202.7	134.4	52.4	45.5	43.3
62.5°	164.0	101.3	43.3	37.6	35.3
65°	124.1	74.0	34.2	29.6	29.6
67.5°	90.0	50.1	27.3	23.9	22.8
70°	54.7	30.7	20.5	19.4	18.2
72.5°	27.3	18.2	15.9	14.8	14.8
75°	9.1	11.4	11.4	12.5	12.5
77.5°	6.8	8.0	8.0	9.1	9.1
80°	4.6	5.7	5.7	6.8	6.8
82.5°	3.4	3.4	4.6	4.6	5.7
85°	2.3	2.3	2.3	3.4	3.4
87.5°	1.1	1.1	1.1	2.3	2.3
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	15.86	17.20	16.23	17.51	17.82	7.41	8.74	7.77	9.05	9.37
	3H	16.37	17.55	16.75	17.88	18.25	8.23	9.41	8.61	9.74	10.10
	4H	16.34	17.44	16.74	17.79	18.17	8.51	9.60	8.91	9.96	10.34
	6H	16.27	17.28	16.69	17.65	18.04	8.68	9.68	9.09	10.06	10.45
	8H	16.23	17.19	16.66	17.58	17.98	8.74	9.70	9.17	10.09	10.49
	12H	16.20	17.11	16.63	17.49	17.92	8.79	9.70	9.22	10.08	10.51
4H	2H	15.70	16.80	16.11	17.15	17.54	7.85	8.95	8.25	9.30	9.68
	3H	16.26	17.15	16.67	17.56	17.96	8.82	9.71	9.23	10.11	10.52
	4H	16.23	17.02	16.66	17.44	17.89	9.18	9.97	9.61	10.39	10.84
	6H	16.17	16.86	16.64	17.31	17.77	9.43	10.11	9.89	10.56	11.03
	8H	16.13	16.77	16.60	17.21	17.69	9.52	10.16	9.99	10.60	11.07
	12H	16.09	16.65	16.58	17.14	17.61	9.59	10.16	10.08	10.64	11.11
8H	4H	16.12	16.76	16.59	17.20	17.67	9.27	9.91	9.74	10.35	10.82
	6H	16.06	16.58	16.56	17.07	17.55	9.58	10.10	10.08	10.59	11.08
	8H	16.01	16.48	16.53	16.99	17.48	9.71	10.18	10.23	10.69	11.18
	12H	15.98	16.39	16.49	16.89	17.46	9.84	10.26	10.36	10.75	11.32
12H	4H	16.07	16.64	16.56	17.12	17.60	9.24	9.80	9.73	10.29	10.76
	6H	16.00	16.47	16.52	16.98	17.48	9.56	10.02	10.08	10.54	11.03
	8H	15.97	16.39	16.49	16.88	17.45	9.73	10.14	10.24	10.64	11.21