

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: P1060237

Luminaire Tested: S124RDRP-S1020D840-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060237
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-39)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-S1020D840-X4F0-XX-UDD-BVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

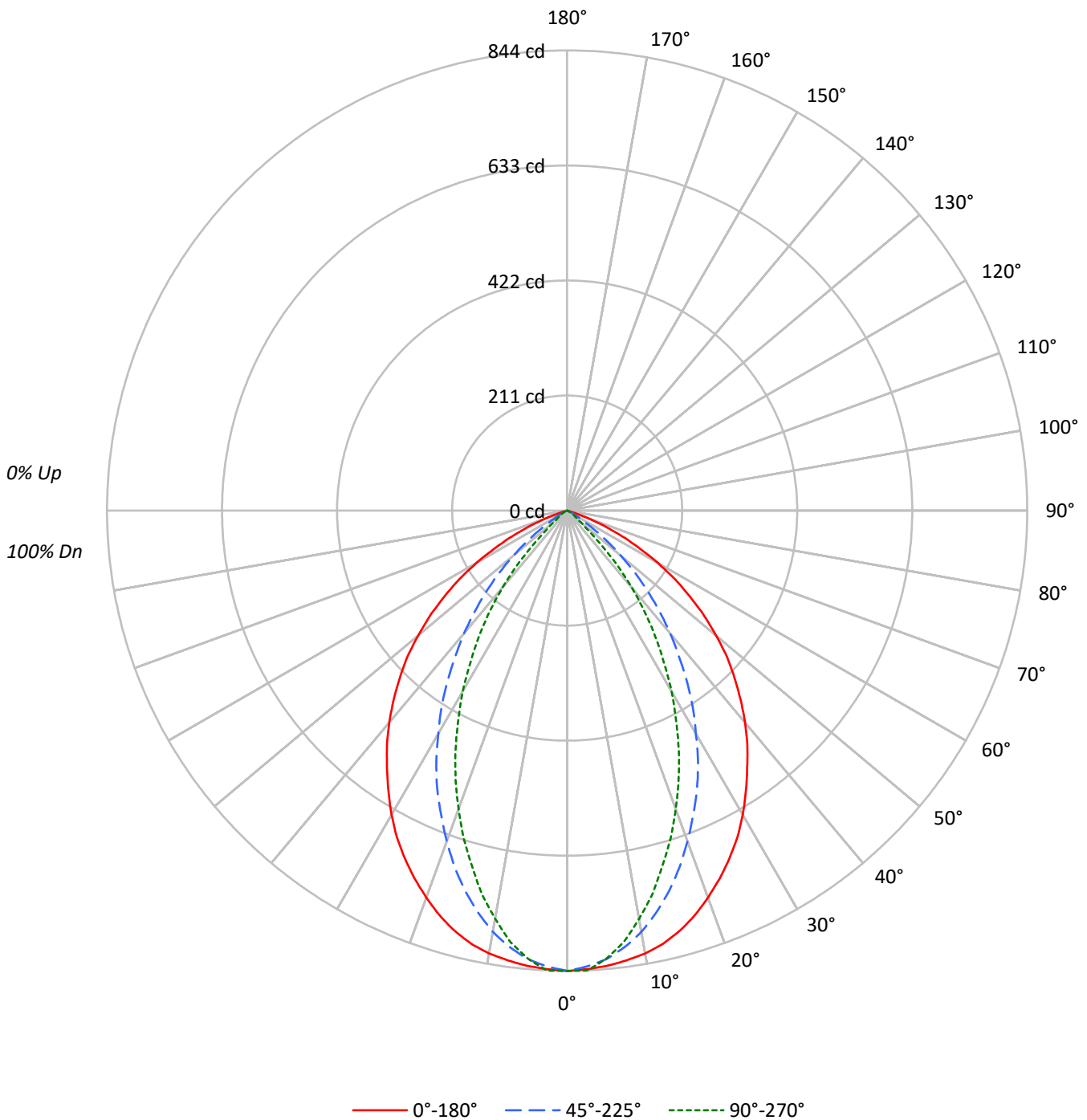
Lumens per Lamp: N/A
Luminaire Lumens: 1102.4 lumens
Efficiency: N/A
Efficacy: 31.5 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	109	106	103	110	107	104	102	103	101	99	99	97	96	96	94	93	91
2	105	99	95	90	103	98	93	89	94	91	87	91	88	86	88	86	84	82
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74
4	92	83	76	71	90	82	76	71	79	74	70	77	73	69	75	71	68	66
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	47	46
9	67	56	49	44	66	56	49	44	54	48	44	54	48	44	53	48	44	42
10	64	52	46	41	63	52	45	41	51	45	41	50	45	41	49	44	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7270	7270	7270
5°	7245	7140	7130
10°	7212	6860	6646
15°	7113	6439	6015
20°	6920	5914	5333
25°	6689	5356	4602
30°	6405	4695	3809
35°	6054	4027	2962
40°	5706	3305	2071
45°	5289	2540	1025
50°	4773	1716	343
55°	4121	880	239
60°	3300	315	169
65°	2262	173	75
70°	1015	93	60
75°	0	40	40
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5289 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.0	7.1
10°-20°	204.4	18.5
20°-30°	264.6	24.0
30°-40°	251.4	22.8
40°-50°	178.0	16.1
50°-60°	91.4	8.3
60°-70°	32.0	2.9
70°-80°	2.8	0.2
80°-90°	0.0	0.0
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°	546.9	49.6
0°-40°	798.3	72.4
0°-60°	1067.7	96.9
0°-90°	1102.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1102.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	844	844	844	844	844	
5°	838	839	826	826	825	80
15°	798	774	722	688	675	224
25°	704	649	564	504	484	324
35°	576	492	383	309	282	360
45°	434	334	209	120	84	334
55°	274	181	59	17	16	245
65°	111	54	8	5	4	110
75°	0	1	1	1	1	9
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	844.3	844.3	844.3	844.3	844.3
2.5°	841.9	844.3	837.0	843.1	844.3
5°	838.2	839.4	826.0	826.0	824.8
7.5°	832.1	829.7	807.7	799.2	797.9
10°	824.8	816.2	784.5	766.2	760.1
12.5°	813.8	797.9	755.2	728.4	721.1
15°	797.9	773.5	722.3	688.1	674.7
17.5°	778.4	746.7	685.7	644.2	630.8
20°	755.2	715.0	645.4	599.1	582.0
22.5°	730.8	684.5	603.9	551.5	534.4
25°	704.0	649.1	563.7	503.9	484.4
27.5°	675.9	611.3	519.8	457.5	431.9
30°	644.2	573.4	472.2	407.5	383.1
32.5°	610.0	532.0	429.5	359.9	330.6
35°	575.9	491.7	383.1	308.7	281.8
37.5°	542.9	453.9	336.7	258.7	233.0
40°	507.6	412.4	294.0	213.5	184.2
42.5°	471.0	372.1	250.1	167.2	135.4
45°	434.3	334.3	208.6	119.6	84.2
47.5°	397.7	294.0	168.4	75.6	45.1
50°	356.3	255.0	128.1	40.3	25.6
52.5°	317.2	218.4	91.5	23.2	19.5
55°	274.5	180.6	58.6	17.1	15.9
57.5°	234.3	144.0	32.9	13.4	12.2
60°	191.6	111.0	18.3	11.0	9.8
62.5°	148.8	80.5	12.2	7.3	6.1
65°	111.0	53.7	8.5	4.9	3.7
67.5°	73.2	30.5	6.1	2.4	2.4
70°	40.3	14.6	3.7	2.4	2.4
72.5°	14.6	4.9	2.4	1.2	1.2
75°	0.0	1.2	1.2	1.2	1.2
77.5°	0.0	0.0	0.0	0.0	1.2
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	15.42	16.68	15.79	16.99	17.31	0.00	0.00	0.00	0.00	0.00
	3H	15.70	16.80	16.08	17.14	17.50	0.00	0.00	0.00	0.00	0.00
	4H	15.62	16.65	16.03	17.00	17.38	0.00	0.00	0.00	0.00	0.00
	6H	15.54	16.48	15.95	16.85	17.24	0.00	0.00	0.00	0.00	0.00
	8H	15.49	16.38	15.92	16.77	17.17	0.00	0.00	0.00	0.00	0.00
	12H	15.44	16.29	15.88	16.67	17.10	0.00	0.00	0.00	0.00	0.00
4H	2H	15.20	16.22	15.60	16.57	16.96	0.00	0.00	0.00	0.00	0.30
	3H	15.48	16.31	15.89	16.71	17.12	0.00	0.00	0.00	0.00	0.31
	4H	15.39	16.12	15.82	16.54	16.99	0.00	0.00	0.00	0.00	0.25
	6H	15.30	15.93	15.76	16.38	16.85	0.00	0.00	0.00	0.00	0.14
	8H	15.24	15.83	15.71	16.27	16.75	0.00	0.00	0.00	0.00	0.04
	12H	15.19	15.70	15.67	16.19	16.66	0.00	0.00	0.00	0.00	0.00
8H	4H	15.24	15.83	15.71	16.27	16.75	0.00	0.00	0.00	0.00	0.22
	6H	15.13	15.61	15.63	16.10	16.59	0.00	0.00	0.00	0.00	0.08
	8H	15.06	15.49	15.59	16.01	16.50	0.00	0.00	0.00	0.00	0.00
	12H	15.01	15.39	15.53	15.89	16.46	0.00	0.00	0.00	0.00	0.00
12H	4H	15.19	15.70	15.67	16.19	16.66	0.00	0.00	0.00	0.00	0.14
	6H	15.06	15.49	15.59	16.01	16.50	0.00	0.00	0.00	0.00	0.00
	8H	15.01	15.39	15.53	15.89	16.46	0.00	0.00	0.00	0.00	0.00