

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: P1060660

Luminaire Tested: S124RDR-H1020D927-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060660
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: S124RDR-H1020D927-X4F0-XX-UDD-BVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

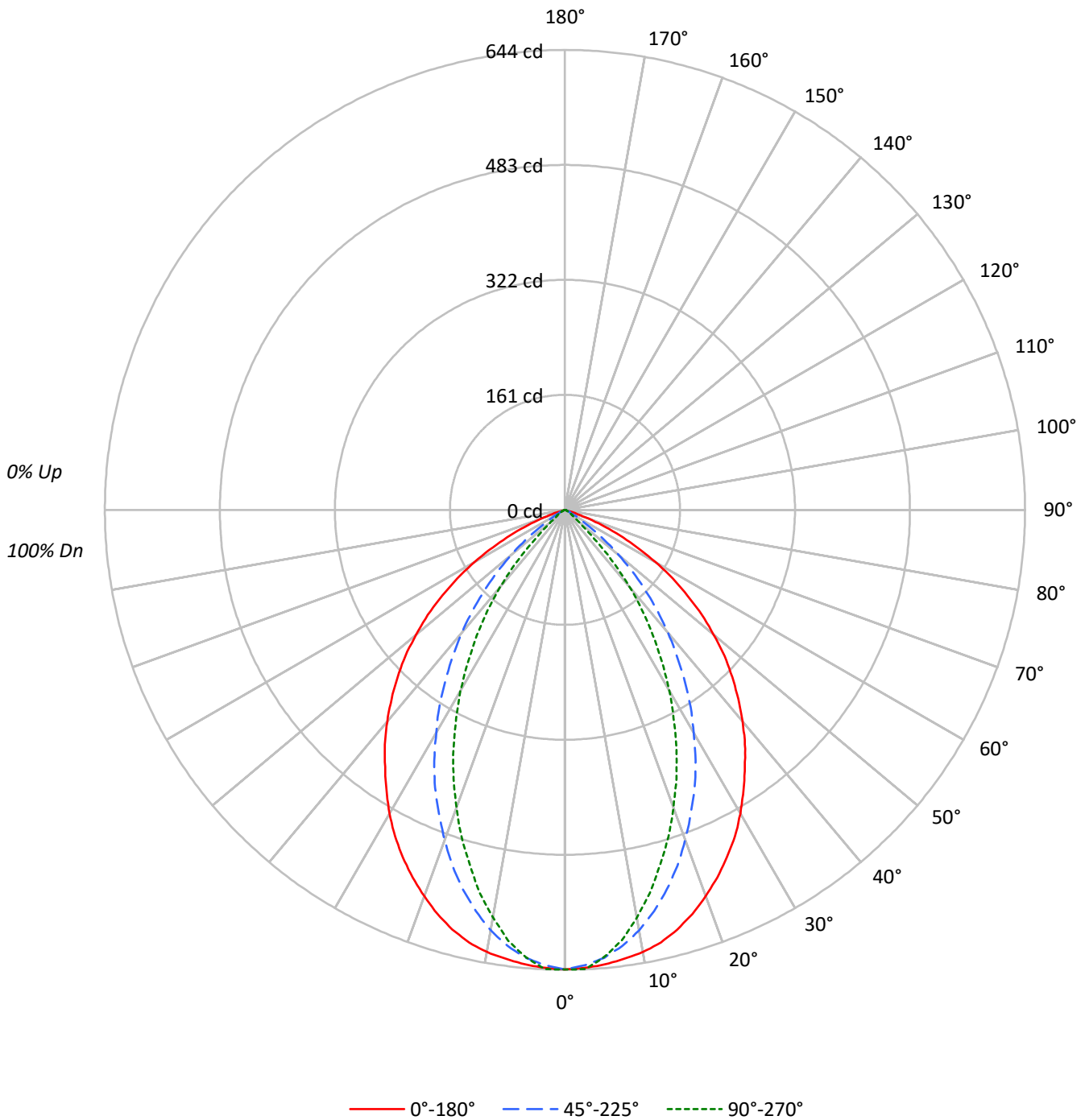
Lumens per Lamp: N/A
Luminaire Lumens: 840.5 lumens
Efficiency: N/A
Efficacy: 26.9 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
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	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°	5542	5542	5542
5°	5524	5443	5435
10°	5498	5230	5067
15°	5423	4909	4586
20°	5276	4509	4066
25°	5099	4083	3509
30°	4883	3580	2904
35°	4615	3071	2259
40°	4349	2520	1578
45°	4032	1936	782
50°	3639	1309	261
55°	3142	670	182
60°	2514	241	127
65°	1724	132	57
70°	773	70	48
75°	0	30	30
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4032 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.4	7.1
10°-20°	155.8	18.5
20°-30°	201.7	24.0
30°-40°	191.6	22.8
40°-50°	135.7	16.1
50°-60°	69.7	8.3
60°-70°	24.4	2.9
70°-80°	2.1	0.3
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°	416.9	49.6
0°-40°	608.6	72.4
0°-60°	814.0	96.8
0°-90°	840.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	840.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	644	644	644	644	644	
5°	639	640	630	630	629	61
15°	608	590	551	525	514	171
25°	537	495	430	384	369	247
35°	439	375	292	235	215	275
45°	331	255	159	91	64	255
55°	209	138	45	13	12	187
65°	85	41	6	4	3	84
75°	0	1	1	1	1	7
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	643.6	643.6	643.6	643.6	643.6
2.5°	641.8	643.6	638.1	642.7	643.6
5°	639.0	639.9	629.7	629.7	628.8
7.5°	634.3	632.5	615.7	609.2	608.3
10°	628.8	622.2	598.1	584.1	579.5
12.5°	620.4	608.3	575.7	555.3	549.7
15°	608.3	589.7	550.6	524.6	514.4
17.5°	593.4	569.2	522.7	491.1	480.9
20°	575.7	545.0	492.0	456.7	443.7
22.5°	557.1	521.8	460.4	420.4	407.4
25°	536.7	494.8	429.7	384.1	369.3
27.5°	515.3	466.0	396.2	348.8	329.3
30°	491.1	437.2	360.0	310.7	292.1
32.5°	465.1	405.5	327.4	274.4	252.1
35°	439.0	374.8	292.1	235.3	214.9
37.5°	413.9	346.0	256.7	197.2	177.7
40°	386.9	314.4	224.2	162.8	140.4
42.5°	359.0	283.7	190.7	127.4	103.2
45°	331.1	254.8	159.0	91.2	64.2
47.5°	303.2	224.2	128.4	57.7	34.4
50°	271.6	194.4	97.7	30.7	19.5
52.5°	241.8	166.5	69.8	17.7	14.9
55°	209.3	137.7	44.6	13.0	12.1
57.5°	178.6	109.8	25.1	10.2	9.3
60°	146.0	84.6	14.0	8.4	7.4
62.5°	113.5	61.4	9.3	5.6	4.7
65°	84.6	40.9	6.5	3.7	2.8
67.5°	55.8	23.3	4.7	1.9	1.9
70°	30.7	11.2	2.8	1.9	1.9
72.5°	11.2	3.7	1.9	0.9	0.9
75°	0.0	0.9	0.9	0.9	0.9
77.5°	0.0	0.0	0.0	0.0	0.9
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	14.48	15.74	14.85	16.05	16.36	0.00	0.00	0.00	0.00	0.00
	3H	14.76	15.86	15.14	16.19	16.56	0.00	0.00	0.00	0.00	0.00
	4H	14.68	15.71	15.09	16.06	16.44	0.00	0.00	0.00	0.00	0.00
	6H	14.60	15.53	15.01	15.91	16.30	0.00	0.00	0.00	0.00	0.00
	8H	14.55	15.44	14.98	15.83	16.23	0.00	0.00	0.00	0.00	0.00
	12H	14.50	15.35	14.94	15.73	16.16	0.00	0.00	0.00	0.00	0.00
4H	2H	14.25	15.28	14.66	15.63	16.01	0.00	0.00	0.00	0.00	0.00
	3H	14.54	15.37	14.95	15.77	16.17	0.00	0.00	0.00	0.00	0.00
	4H	14.44	15.18	14.88	15.60	16.05	0.00	0.00	0.00	0.00	0.00
	6H	14.36	14.99	14.82	15.44	15.90	0.00	0.00	0.00	0.00	0.00
	8H	14.30	14.88	14.77	15.33	15.80	0.00	0.00	0.00	0.00	0.00
	12H	14.24	14.76	14.73	15.25	15.72	0.00	0.00	0.00	0.00	0.00
8H	4H	14.30	14.88	14.77	15.33	15.80	0.00	0.00	0.00	0.00	0.00
	6H	14.19	14.66	14.69	15.16	15.65	0.00	0.00	0.00	0.00	0.00
	8H	14.12	14.55	14.65	15.07	15.56	0.00	0.00	0.00	0.00	0.00
	12H	14.07	14.45	14.59	14.94	15.52	0.00	0.00	0.00	0.00	0.00
12H	4H	14.24	14.76	14.73	15.25	15.72	0.00	0.00	0.00	0.00	0.00
	6H	14.12	14.55	14.65	15.07	15.56	0.00	0.00	0.00	0.00	0.00
	8H	14.07	14.45	14.59	14.94	15.52	0.00	0.00	0.00	0.00	0.00