

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: P1060219

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060219
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-S1020D830-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: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

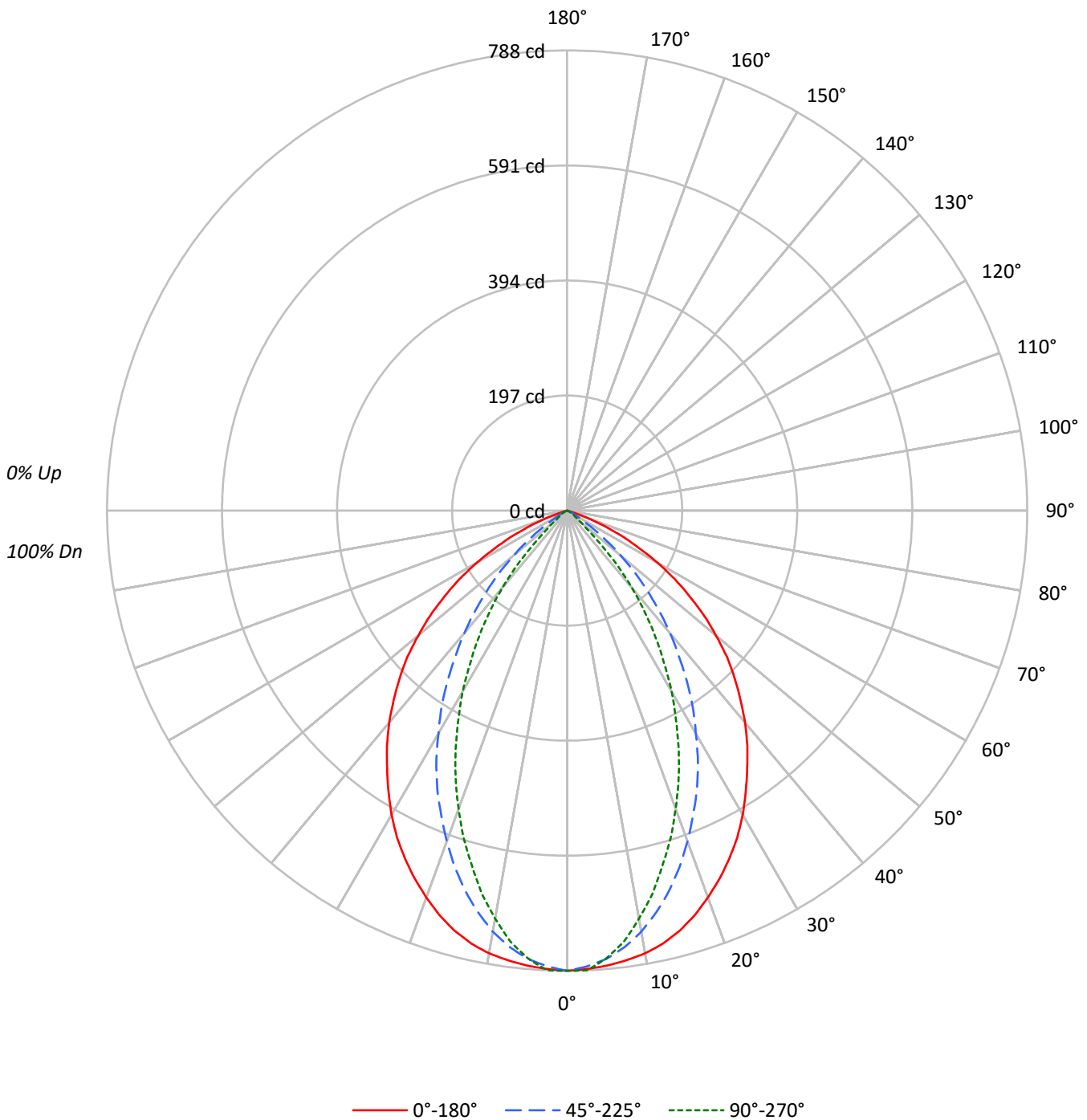
Lumens per Lamp: N/A
Luminaire Lumens: 1028.9 lumens
Efficiency: N/A
Efficacy: 29.4 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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°	6786	6786	6786
5°	6762	6664	6654
10°	6731	6402	6203
15°	6639	6010	5614
20°	6460	5520	4978
25°	6243	4999	4296
30°	5979	4382	3556
35°	5650	3759	2765
40°	5325	3085	1933
45°	4937	2371	957
50°	4454	1602	320
55°	3846	821	222
60°	3079	295	157
65°	2111	163	69
70°	947	86	58
75°	0	37	37
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4937 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.8	7.1
10°-20°	190.7	18.5
20°-30°	246.9	24.0
30°-40°	234.6	22.8
40°-50°	166.2	16.1
50°-60°	85.3	8.3
60°-70°	29.8	2.9
70°-80°	2.6	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°	510.5	49.6
0°-40°	745.1	72.4
0°-60°	996.5	96.8
0°-90°	1028.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1028.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	788	788	788	788	788	
5°	782	784	771	771	770	74
15°	745	722	674	642	630	209
25°	657	606	526	470	452	302
35°	538	459	358	288	263	336
45°	405	312	195	112	79	312
55°	256	168	55	16	15	229
65°	104	50	8	5	3	103
75°	0	1	1	1	1	8
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°	788.0	788.0	788.0	788.0	788.0
2.5°	785.7	788.0	781.2	786.9	788.0
5°	782.3	783.5	770.9	770.9	769.8
7.5°	776.6	774.3	753.8	745.9	744.7
10°	769.8	761.8	732.2	715.1	709.4
12.5°	759.5	744.7	704.9	679.8	673.0
15°	744.7	722.0	674.1	642.3	629.7
17.5°	726.5	696.9	640.0	601.3	588.7
20°	704.9	667.3	602.4	559.1	543.2
22.5°	682.1	638.8	563.7	514.7	498.8
25°	657.1	605.8	526.1	470.3	452.1
27.5°	630.9	570.5	485.1	427.0	403.1
30°	601.3	535.2	440.7	380.3	357.6
32.5°	569.4	496.5	400.8	335.9	308.6
35°	537.5	458.9	357.6	288.1	263.0
37.5°	506.7	423.6	314.3	241.4	217.5
40°	473.7	384.9	274.4	199.3	172.0
42.5°	439.6	347.3	233.4	156.0	126.4
45°	405.4	312.0	194.7	111.6	78.6
47.5°	371.2	274.4	157.1	70.6	42.1
50°	332.5	238.0	119.6	37.6	23.9
52.5°	296.1	203.8	85.4	21.6	18.2
55°	256.2	168.5	54.7	15.9	14.8
57.5°	218.6	134.4	30.7	12.5	11.4
60°	178.8	103.6	17.1	10.2	9.1
62.5°	138.9	75.2	11.4	6.8	5.7
65°	103.6	50.1	8.0	4.6	3.4
67.5°	68.3	28.5	5.7	2.3	2.3
70°	37.6	13.7	3.4	2.3	2.3
72.5°	13.7	4.6	2.3	1.1	1.1
75°	0.0	1.1	1.1	1.1	1.1
77.5°	0.0	0.0	0.0	0.0	1.1
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	15.18	16.44	15.55	16.75	17.07	0.00	0.00	0.00	0.00	0.00
	3H	15.46	16.57	15.84	16.90	17.26	0.00	0.00	0.00	0.00	0.00
	4H	15.38	16.41	15.79	16.76	17.14	0.00	0.00	0.00	0.00	0.00
	6H	15.30	16.24	15.71	16.61	17.00	0.00	0.00	0.00	0.00	0.00
	8H	15.25	16.14	15.68	16.53	16.93	0.00	0.00	0.00	0.00	0.00
	12H	15.20	16.05	15.64	16.43	16.86	0.00	0.00	0.00	0.00	0.00
4H	2H	14.96	15.98	15.36	16.33	16.72	0.00	0.00	0.00	0.00	0.06
	3H	15.24	16.07	15.65	16.47	16.88	0.00	0.00	0.00	0.00	0.08
	4H	15.15	15.88	15.58	16.30	16.75	0.00	0.00	0.00	0.00	0.02
	6H	15.06	15.69	15.52	16.14	16.61	0.00	0.00	0.00	0.00	0.00
	8H	15.00	15.59	15.47	16.03	16.51	0.00	0.00	0.00	0.00	0.00
	12H	14.95	15.46	15.43	15.95	16.42	0.00	0.00	0.00	0.00	0.00
8H	4H	15.00	15.59	15.47	16.03	16.51	0.00	0.00	0.00	0.00	0.00
	6H	14.89	15.37	15.39	15.86	16.35	0.00	0.00	0.00	0.00	0.00
	8H	14.82	15.25	15.35	15.77	16.26	0.00	0.00	0.00	0.00	0.00
	12H	14.77	15.15	15.29	15.65	16.22	0.00	0.00	0.00	0.00	0.00
12H	4H	14.95	15.46	15.43	15.95	16.42	0.00	0.00	0.00	0.00	0.00
	6H	14.82	15.25	15.35	15.77	16.26	0.00	0.00	0.00	0.00	0.00
	8H	14.77	15.15	15.29	15.65	16.22	0.00	0.00	0.00	0.00	0.00