

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: P1060282

Luminaire Tested: S124RDRP-S1020D940-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060282
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-S1020D940-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, 90 CRI LEDS
Ballast/Driver: -

Summary

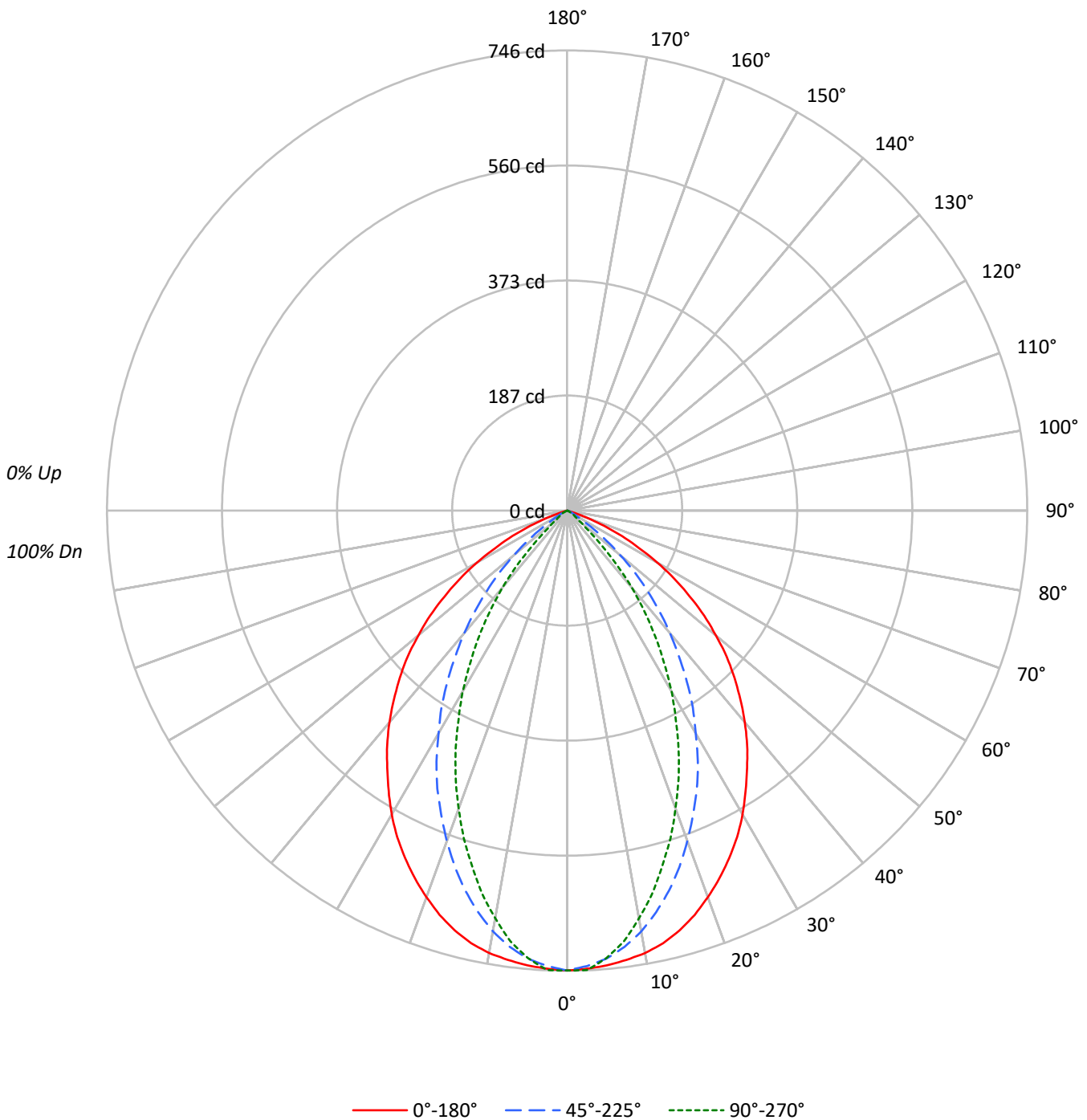
Lumens per Lamp: N/A
Luminaire Lumens: 973.5 lumens
Efficiency: N/A
Efficacy: 27.8 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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°	6420	6420	6420
5°	6397	6305	6295
10°	6368	6057	5869
15°	6281	5686	5311
20°	6111	5222	4709
25°	5906	4729	4064
30°	5656	4145	3364
35°	5345	3556	2616
40°	5038	2918	1829
45°	4670	2243	905
50°	4215	1515	303
55°	3639	776	210
60°	2912	279	148
65°	1997	153	65
70°	896	81	55
75°	0	37	37
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4670 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.9	7.1
10°-20°	180.5	18.5
20°-30°	233.6	24.0
30°-40°	222.0	22.8
40°-50°	157.2	16.1
50°-60°	80.7	8.3
60°-70°	28.2	2.9
70°-80°	2.5	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°	482.9	49.6
0°-40°	704.9	72.4
0°-60°	942.8	96.8
0°-90°	973.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	973.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	746	746	746	746	746	
5°	740	741	729	729	728	70
15°	705	683	638	608	596	198
25°	622	573	498	445	428	286
35°	508	434	338	273	249	318
45°	384	295	184	106	74	295
55°	242	159	52	15	14	217
65°	98	47	8	4	3	98
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°	745.5	745.5	745.5	745.5	745.5
2.5°	743.4	745.5	739.0	744.4	745.5
5°	740.1	741.2	729.4	729.4	728.3
7.5°	734.7	732.6	713.2	705.7	704.6
10°	728.3	720.7	692.7	676.6	671.2
12.5°	718.6	704.6	666.9	643.2	636.7
15°	704.6	683.0	637.8	607.6	595.8
17.5°	687.3	659.3	605.5	568.8	557.0
20°	666.9	631.3	569.9	529.0	513.9
22.5°	645.3	604.4	533.3	487.0	471.9
25°	621.6	573.1	497.7	444.9	427.7
27.5°	596.8	539.7	458.9	404.0	381.4
30°	568.8	506.3	416.9	359.8	338.3
32.5°	538.7	469.7	379.2	317.8	292.0
35°	508.5	434.2	338.3	272.6	248.9
37.5°	479.4	400.8	297.3	228.4	205.8
40°	448.2	364.1	259.6	188.5	162.7
42.5°	415.8	328.6	220.9	147.6	119.6
45°	383.5	295.2	184.2	105.6	74.3
47.5°	351.2	259.6	148.7	66.8	39.9
50°	314.6	225.2	113.1	35.6	22.6
52.5°	280.1	192.8	80.8	20.5	17.2
55°	242.4	159.4	51.7	15.1	14.0
57.5°	206.8	127.1	29.1	11.9	10.8
60°	169.1	98.0	16.2	9.7	8.6
62.5°	131.4	71.1	10.8	6.5	5.4
65°	98.0	47.4	7.5	4.3	3.2
67.5°	64.6	26.9	5.4	2.2	2.2
70°	35.6	12.9	3.2	2.2	2.2
72.5°	12.9	4.3	2.2	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	14.99	16.24	15.35	16.56	16.87	0.00	0.00	0.00	0.00	0.00
	3H	15.26	16.37	15.65	16.70	17.07	0.00	0.00	0.00	0.00	0.00
	4H	15.19	16.21	15.59	16.56	16.95	0.00	0.00	0.00	0.00	0.00
	6H	15.10	16.04	15.52	16.41	16.81	0.00	0.00	0.00	0.00	0.00
	8H	15.06	15.94	15.49	16.33	16.74	0.00	0.00	0.00	0.00	0.00
	12H	15.01	15.86	15.44	16.24	16.67	0.00	0.00	0.00	0.00	0.00
4H	2H	14.76	15.79	15.16	16.14	16.52	0.00	0.00	0.00	0.00	0.00
	3H	15.04	15.87	15.46	16.28	16.68	0.00	0.00	0.00	0.00	0.00
	4H	14.95	15.69	15.39	16.11	16.55	0.00	0.00	0.00	0.00	0.00
	6H	14.86	15.49	15.33	15.94	16.41	0.00	0.00	0.00	0.00	0.00
	8H	14.80	15.39	15.27	15.84	16.31	0.00	0.00	0.00	0.00	0.00
	12H	14.75	15.27	15.24	15.75	16.23	0.00	0.00	0.00	0.00	0.00
8H	4H	14.80	15.39	15.27	15.84	16.31	0.00	0.00	0.00	0.00	0.00
	6H	14.69	15.17	15.20	15.67	16.15	0.00	0.00	0.00	0.00	0.00
	8H	14.63	15.05	15.15	15.57	16.07	0.00	0.00	0.00	0.00	0.00
	12H	14.58	14.95	15.09	15.45	16.02	0.00	0.00	0.00	0.00	0.00
12H	4H	14.75	15.27	15.24	15.75	16.23	0.00	0.00	0.00	0.00	0.00
	6H	14.63	15.05	15.15	15.57	16.07	0.00	0.00	0.00	0.00	0.00
	8H	14.58	14.95	15.09	15.45	16.02	0.00	0.00	0.00	0.00	0.00