

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: P1060282

Luminaire Tested: S124RDR-S1020D940-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
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: S124RDR-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

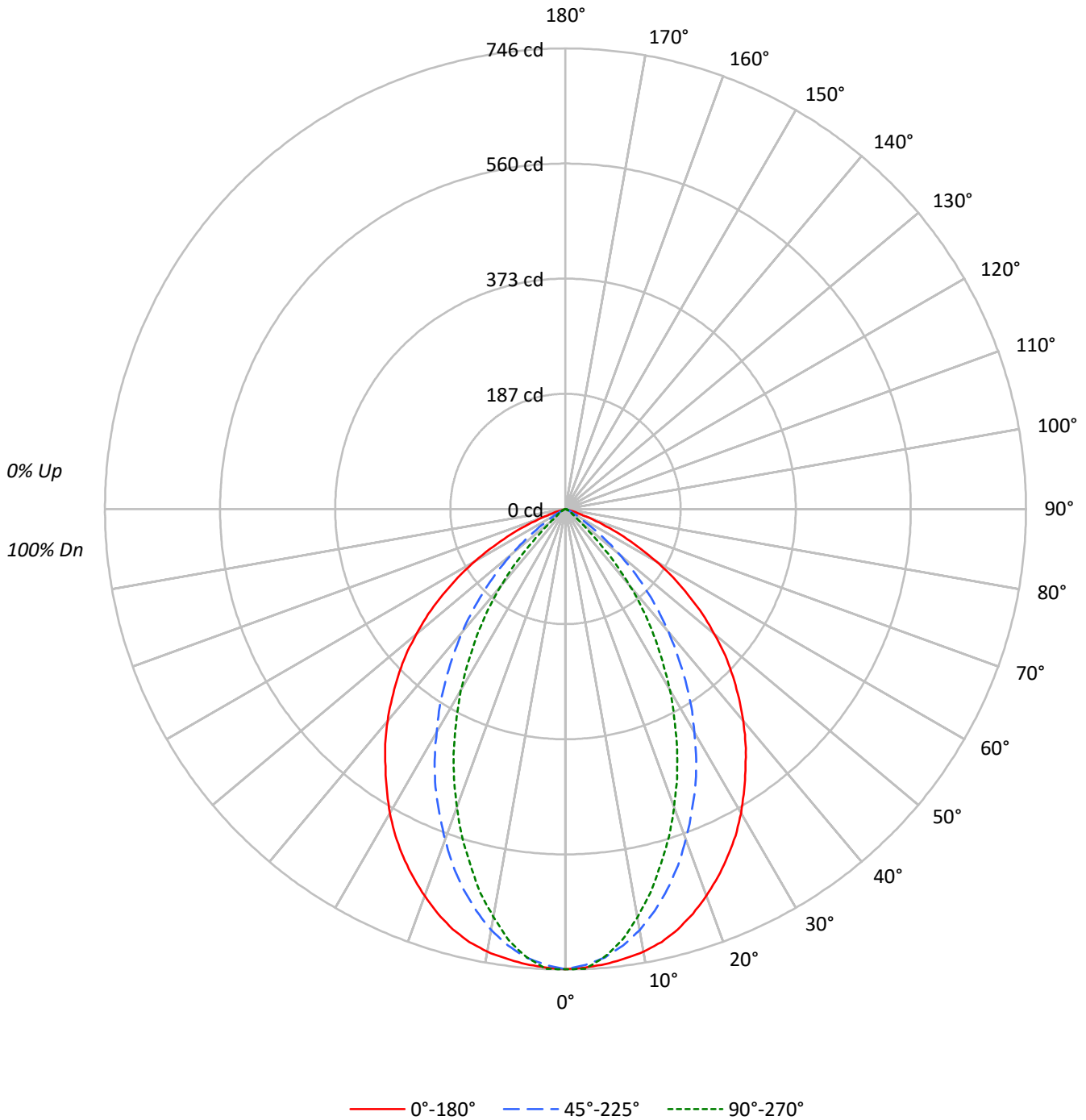
Lumens per Lamp: N/A
Luminaire Lumens: 973.5 lumens
Efficiency: N/A
Efficacy: 27.8 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V): 120
Input Current (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	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	



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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

(END OF REPORT)