

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: P1060237

Luminaire Tested: S124RDR-S1020D840-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
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: S124RDR-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

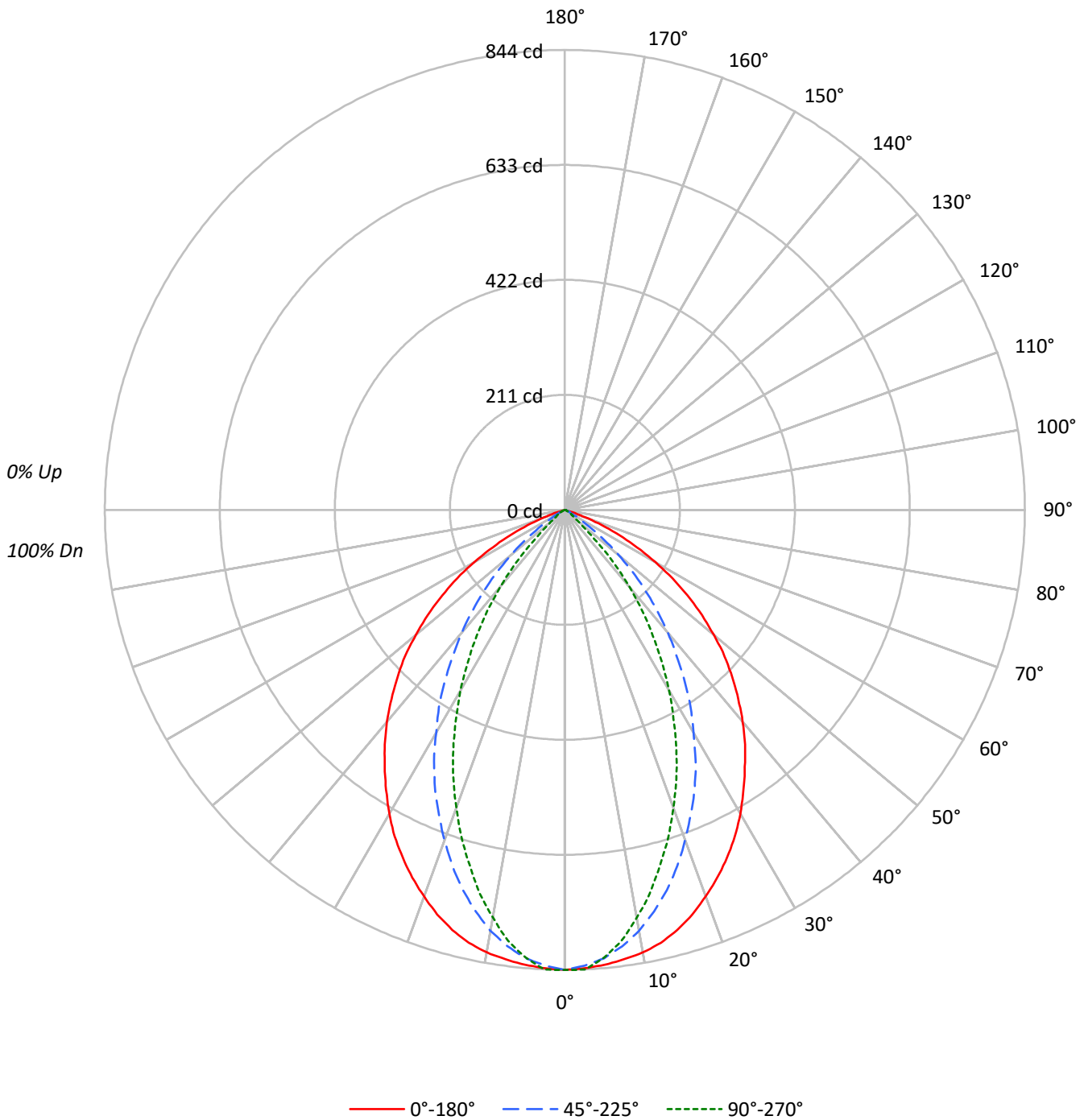
Lumens per Lamp: N/A
Luminaire Lumens: 1102.4 lumens
Efficiency: N/A
Efficacy: 31.5 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V): 120
Input Current (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									
RC	80									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	50	30	10	0													
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100						100													
1	112	109	106	103	110	107	104	102	103	101	99	99	97	96	96	94	93	91						91													
2	105	99	95	90	103	98	93	89	94	91	87	91	88	86	88	86	84	82						82													
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74						74													
4	92	83	76	71	90	82	76	71	79	74	70	77	73	69	75	71	68	66						66													
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60						60													
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55						55													
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50						50													
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	47	46						46													
9	67	56	49	44	66	56	49	44	54	48	44	54	48	44	53	48	44	42						42													
10	64	52	46	41	63	52	45	41	51	45	41	50	45	41	49	44	41	39						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

(END OF REPORT)