

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: P1060225

Luminaire Tested: S124RDR-S1020D830-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060225
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-37)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-S1020D830-X4F0-XX-UDD-WVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

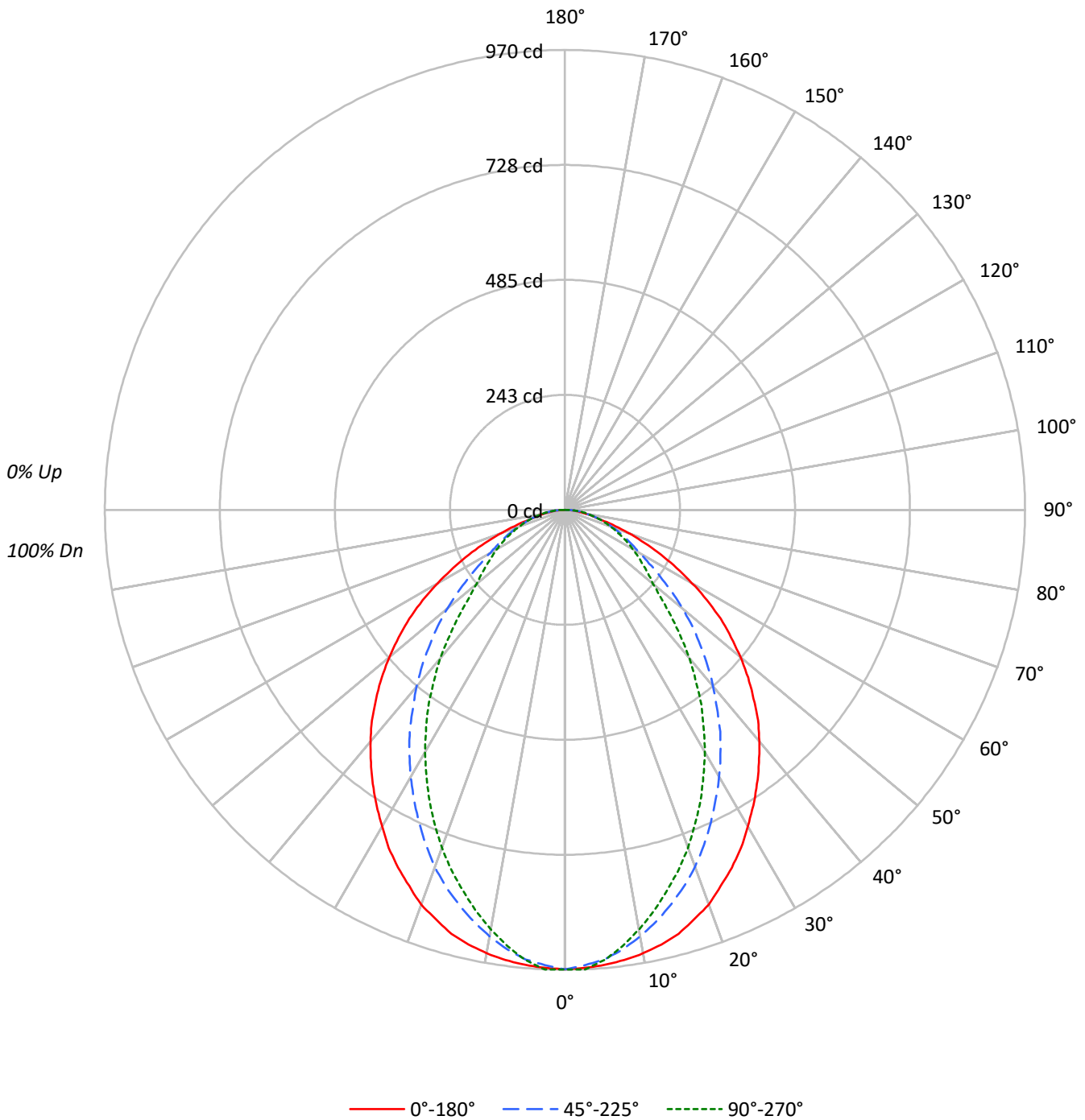
Lumens per Lamp: N/A
Luminaire Lumens: 1868.6 lumens
Efficiency: N/A
Efficacy: 53.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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									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	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86																				
2	101	94	88	83	99	92	86	82	89	84	80	85	82	78	82	79	76	74																				
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66	64																				
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56																				
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																				
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44																				
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40																				
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38	36																				
9	61	48	40	35	59	48	40	35	46	40	35	45	39	35	44	39	35	33																				
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	30																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8345	8345	8345
5°	8328	8229	8239
10°	8304	7986	7856
15°	8253	7685	7411
20°	8118	7347	6950
25°	7909	6914	6427
30°	7665	6465	5866
35°	7422	5997	5267
40°	7168	5465	4595
45°	6850	4909	3841
50°	6468	4332	3250
55°	6017	3675	3009
60°	5334	3119	2843
65°	4548	2877	2692
70°	3555	2666	2550
75°	2425	2462	2462
80°	2088	2316	2370
85°	1798	2253	2480

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6850 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.2	4.8
10°-20°	244.9	13.1
20°-30°	339.9	18.2
30°-40°	364.4	19.5
40°-50°	322.8	17.3
50°-60°	243.3	13.0
60°-70°	157.5	8.4
70°-80°	80.8	4.3
80°-90°	24.8	1.3
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°	674.9	36.1
0°-40°	1039.3	55.6
0°-60°	1605.4	85.9
0°-90°	1868.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1868.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	969	969	969	969	969	
5°	963	964	952	953	953	92
15°	926	905	862	840	831	260
25°	832	788	728	689	676	383
35°	706	642	570	519	501	441
45°	562	490	403	340	315	434
55°	401	334	245	206	200	356
65°	223	180	141	133	132	221
75°	73	76	74	74	74	86
85°	18	19	23	25	25	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	969.1	969.1	969.1	969.1	969.1
2.5°	966.8	970.2	961.1	967.9	970.2
5°	963.4	964.5	952.0	953.1	953.1
7.5°	957.7	955.4	934.9	929.2	928.1
10°	949.7	942.9	913.3	901.9	898.5
12.5°	939.5	926.9	889.4	873.4	866.6
15°	925.8	905.3	862.0	840.4	831.3
17.5°	905.3	879.1	833.6	806.2	796.0
20°	885.9	850.6	801.7	767.5	758.4
22.5°	858.6	821.0	765.2	728.8	717.4
25°	832.4	788.0	727.7	688.9	676.4
27.5°	804.0	753.8	688.9	647.9	632.0
30°	770.9	717.4	650.2	606.9	589.9
32.5°	739.0	682.1	610.4	562.5	544.3
35°	706.0	642.2	570.5	519.3	501.0
37.5°	671.9	604.7	526.1	476.0	452.1
40°	637.7	567.1	486.2	429.3	408.8
42.5°	602.4	528.4	445.2	386.0	359.8
45°	562.5	489.7	403.1	340.5	315.4
47.5°	523.8	452.1	364.4	296.1	273.3
50°	482.8	412.2	323.4	257.4	242.6
52.5°	441.8	371.2	283.5	227.7	220.9
55°	400.8	333.7	244.8	206.1	200.4
57.5°	355.3	294.9	210.7	186.8	182.2
60°	309.7	252.8	181.1	168.5	165.1
62.5°	265.3	216.4	160.6	150.3	148.0
65°	223.2	179.9	141.2	133.2	132.1
67.5°	182.2	148.0	123.0	118.4	116.2
70°	141.2	118.4	105.9	103.6	101.3
72.5°	104.8	95.7	90.0	88.8	87.7
75°	72.9	76.3	74.0	74.0	74.0
77.5°	58.1	59.2	60.4	61.5	60.4
80°	42.1	45.5	46.7	49.0	47.8
82.5°	29.6	31.9	35.3	36.4	37.6
85°	18.2	19.4	22.8	25.1	25.1
87.5°	8.0	9.1	11.4	13.7	14.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)