

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: P1060243

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060243
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-S1020D840-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: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

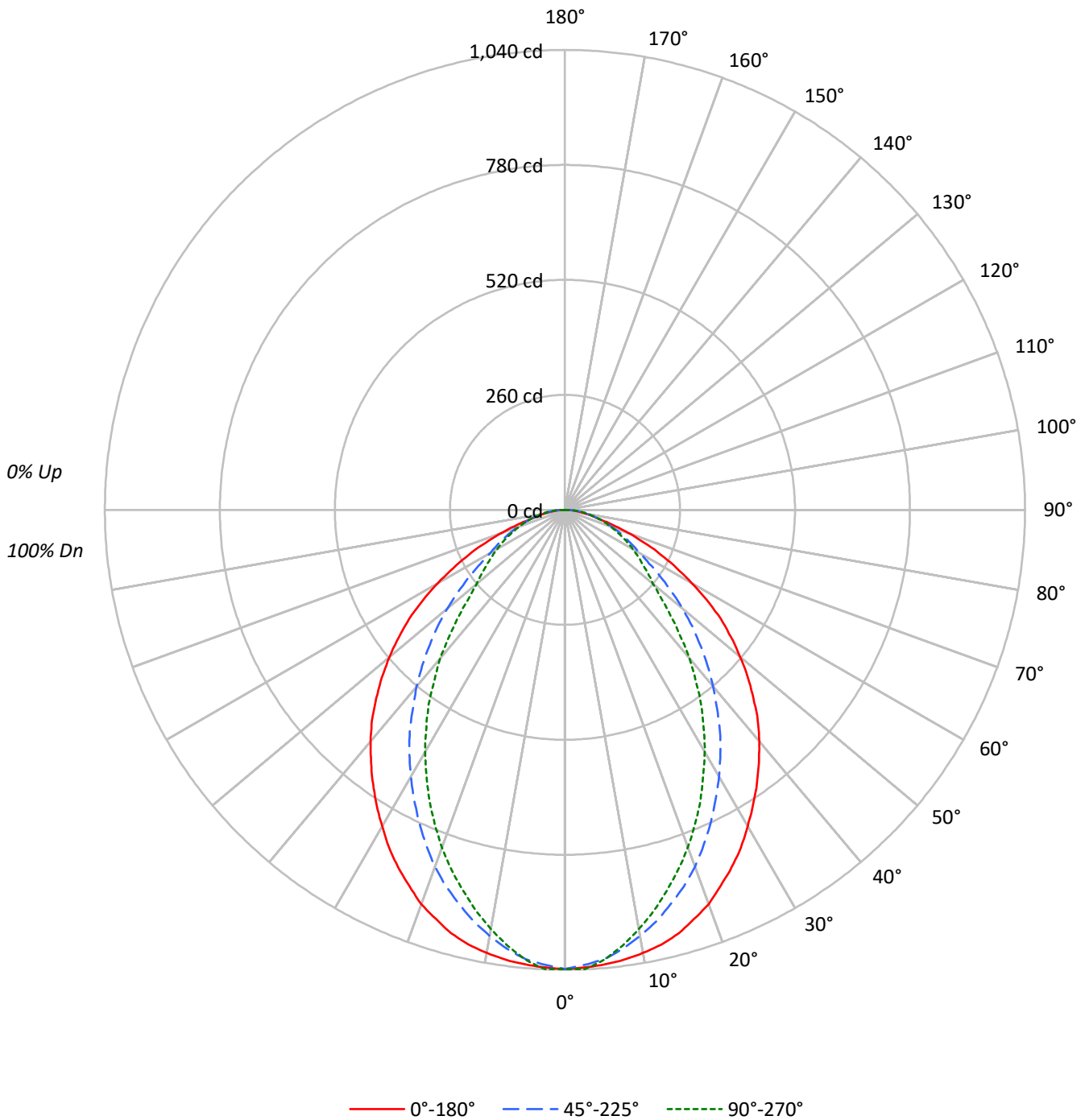
Lumens per Lamp: N/A
Luminaire Lumens: 2002.0 lumens
Efficiency: N/A
Efficacy: 57.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1060243

CATALOG NUMBER: S124RDR-S1020D840-X4F0-XX-UDD-WVL-B

Luminous Intensity Polar Plot





TEST NUMBER: P1060243

CATALOG NUMBER: S124RDR-S1020D840-X4F0-XX-UDD-WVL-B

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8941	8941	8941
5°	8922	8817	8827
10°	8897	8556	8417
15°	8843	8234	7941
20°	8698	7871	7446
25°	8474	7407	6886
30°	8213	6927	6284
35°	7951	6426	5643
40°	7680	5857	4924
45°	7340	5260	4116
50°	6930	4642	3482
55°	6448	3938	3223
60°	5716	3341	3047
65°	4872	3083	2883
70°	3809	2858	2734
75°	2598	2638	2638
80°	2236	2479	2539
85°	1927	2411	2648

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7340 cd/sqm



TEST NUMBER: P1060243

CATALOG NUMBER: S124RDR-S1020D840-X4F0-XX-UDD-WVL-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.6	4.8
10°-20°	262.3	13.1
20°-30°	364.2	18.2
30°-40°	390.4	19.5
40°-50°	345.9	17.3
50°-60°	260.6	13.0
60°-70°	168.8	8.4
70°-80°	86.6	4.3
80°-90°	26.6	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°	723.1	36.1
0°-40°	1113.6	55.6
0°-60°	1720.1	85.9
0°-90°	2002.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2002.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1038	1038	1038	1038	1038	
5°	1032	1033	1020	1021	1021	98
15°	992	970	924	900	891	279
25°	892	844	780	738	725	410
35°	756	688	611	556	537	473
45°	603	525	432	365	338	465
55°	430	358	262	221	215	382
65°	239	193	151	143	142	237
75°	78	82	79	79	79	92
85°	20	21	24	27	27	22
90°	0	0	0	0	0	



TEST NUMBER: P1060243

CATALOG NUMBER: S124RDR-S1020D840-X4F0-XX-UDD-WVL-B

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1038.3	1038.3	1038.3	1038.3	1038.3
2.5°	1035.8	1039.5	1029.7	1037.1	1039.5
5°	1032.2	1033.4	1020.0	1021.2	1021.2
7.5°	1026.1	1023.6	1001.7	995.6	994.4
10°	1017.5	1010.2	978.5	966.3	962.6
12.5°	1006.6	993.1	952.9	935.8	928.5
15°	991.9	970.0	923.6	900.4	890.7
17.5°	970.0	941.9	893.1	863.8	852.8
20°	949.2	911.4	858.9	822.3	812.6
22.5°	919.9	879.7	819.9	780.8	768.6
25°	891.9	844.3	779.6	738.1	724.7
27.5°	861.4	807.7	738.1	694.2	677.1
30°	826.0	768.6	696.7	650.3	632.0
32.5°	791.8	730.8	654.0	602.7	583.2
35°	756.4	688.1	611.3	556.4	536.8
37.5°	719.8	647.9	563.7	510.0	484.4
40°	683.2	607.6	521.0	460.0	438.0
42.5°	645.4	566.1	477.1	413.6	385.5
45°	602.7	524.6	431.9	364.8	338.0
47.5°	561.2	484.4	390.4	317.2	292.8
50°	517.3	441.7	346.5	275.7	259.9
52.5°	473.4	397.7	303.8	244.0	236.7
55°	429.5	357.5	262.3	220.8	214.7
57.5°	380.7	316.0	225.7	200.1	195.2
60°	331.9	270.9	194.0	180.6	176.9
62.5°	284.3	231.8	172.0	161.1	158.6
65°	239.1	192.8	151.3	142.7	141.5
67.5°	195.2	158.6	131.8	126.9	124.4
70°	151.3	126.9	113.5	111.0	108.6
72.5°	112.2	102.5	96.4	95.2	93.9
75°	78.1	81.7	79.3	79.3	79.3
77.5°	62.2	63.4	64.7	65.9	64.7
80°	45.1	48.8	50.0	52.5	51.2
82.5°	31.7	34.2	37.8	39.0	40.3
85°	19.5	20.7	24.4	26.8	26.8
87.5°	8.5	9.8	12.2	14.6	15.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)