

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: P1060284

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060284
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-75)
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-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

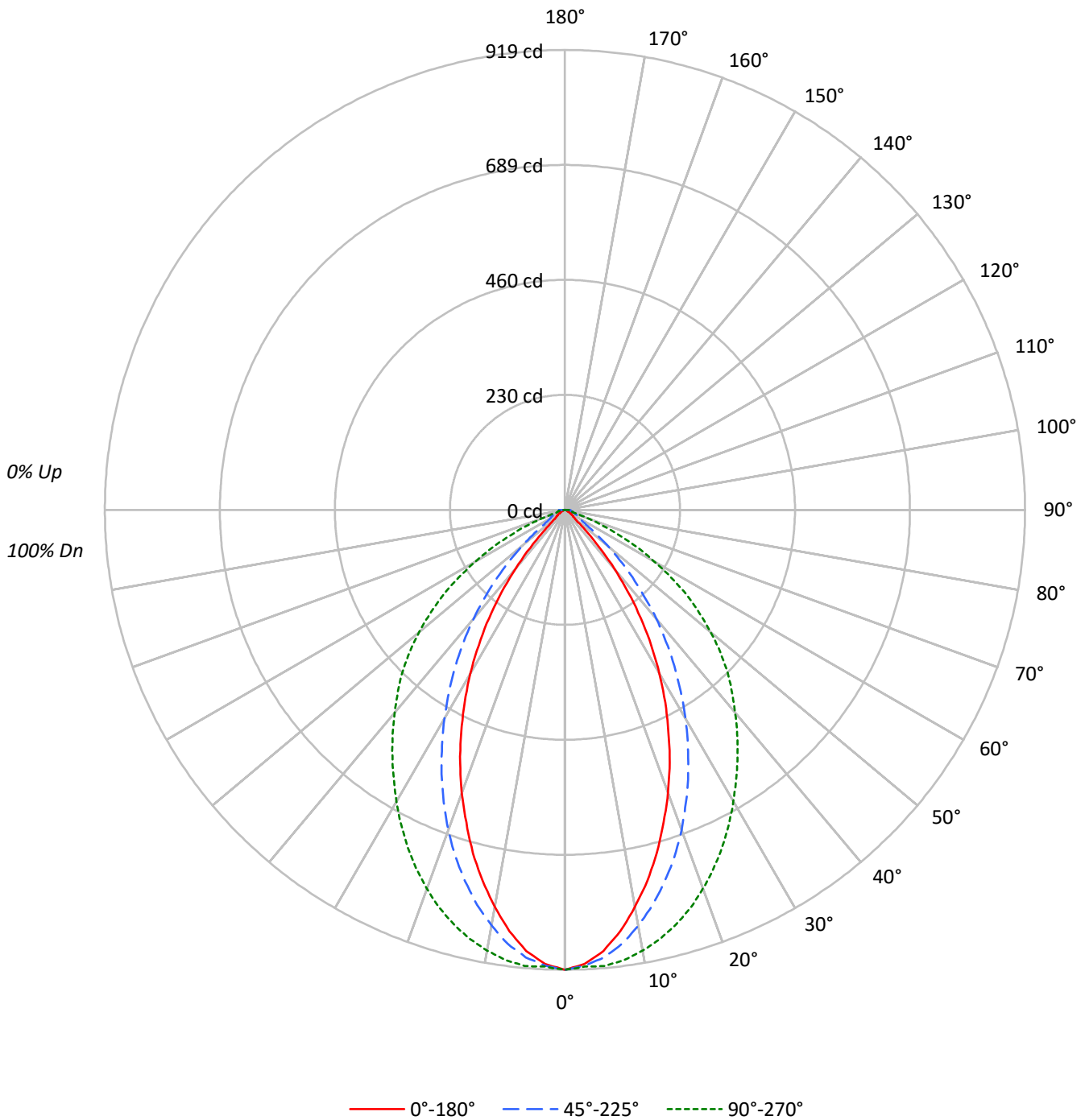
Lumens per Lamp: N/A
Luminaire Lumens: 1158.4 lumens
Efficiency: N/A
Efficacy: 33.1 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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: P1060284

CATALOG NUMBER: S124RDR-S1020D940-X4F0-XX-UDD-BVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1060284

CATALOG NUMBER: S124RDR-S1020D940-X4F0-XX-UDD-BVL-W

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	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	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81				
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72				
4	91	82	75	70	89	81	75	70	79	73	69	76	72	68	74	70	67	65				
5	86	75	68	63	84	74	68	63	72	67	62	71	66	62	69	65	61	59				
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56	54				
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49				
8	71	60	53	48	70	59	52	48	58	52	48	57	51	47	56	51	47	45				
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42				
10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7914	7914	7914
5°	7647	7758	7908
10°	7046	7376	7820
15°	6328	6856	7645
20°	5516	6238	7384
25°	4653	5535	7061
30°	3755	4784	6693
35°	2778	4003	6317
40°	1722	3189	5942
45°	683	2325	5596
50°	304	1460	5087
55°	243	761	4454
60°	167	575	3548
65°	110	571	2439
70°	108	516	1141
75°	143	502	502
80°	213	590	590
85°	425	1176	850

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5596 cd/sqm



TEST NUMBER: P1060284

CATALOG NUMBER: S124RDR-S1020D940-X4F0-XX-UDD-BVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.3	7.3
10°-20°	217.6	18.8
20°-30°	274.7	23.7
30°-40°	252.0	21.8
40°-50°	171.6	14.8
50°-60°	93.5	8.1
60°-70°	40.5	3.5
70°-80°	14.7	1.3
80°-90°	9.5	0.8
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°	576.6	49.8
0°-40°	828.5	71.5
0°-60°	1093.6	94.4
0°-90°	1158.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1158.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	919	919	919	919	919	
5°	885	896	898	907	915	82
15°	710	735	769	824	858	197
25°	490	524	582	675	743	224
35°	264	303	381	502	601	163
45°	56	94	191	339	460	52
55°	16	17	51	187	297	14
65°	5	8	28	58	120	6
75°	4	14	15	15	15	5
85°	4	10	12	12	9	4
90°	0	0	0	0	0	



TEST NUMBER: P1060284

CATALOG NUMBER: S124RDR-S1020D940-X4F0-XX-UDD-BVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	919.1	919.1	919.1	919.1	919.1
2.5°	908.3	919.1	911.5	913.7	913.7
5°	884.6	896.4	897.5	907.2	914.8
7.5°	849.0	866.2	874.9	894.3	907.2
10°	805.8	826.3	843.6	877.0	894.3
12.5°	759.4	783.2	809.1	853.3	878.1
15°	709.8	734.6	769.1	824.2	857.6
17.5°	654.8	685.0	727.1	792.9	833.9
20°	601.9	632.1	680.7	755.1	805.8
22.5°	546.9	578.2	632.1	715.2	775.6
25°	489.7	524.3	582.5	675.3	743.2
27.5°	433.7	470.3	531.8	633.2	708.7
30°	377.6	414.2	481.1	590.1	673.1
32.5°	320.4	358.1	430.4	544.8	636.5
35°	264.3	303.1	380.8	501.6	600.9
37.5°	207.1	248.1	331.2	459.5	565.3
40°	153.2	194.2	283.7	417.5	528.6
42.5°	102.5	143.5	235.2	376.5	494.1
45°	56.1	93.8	190.9	338.7	459.5
47.5°	30.2	51.8	147.8	302.0	420.7
50°	22.7	28.0	109.0	263.2	379.7
52.5°	19.4	21.6	75.5	222.2	338.7
55°	16.2	17.3	50.7	186.6	296.7
57.5°	12.9	14.0	37.8	151.0	251.3
60°	9.7	11.9	33.4	116.5	206.0
62.5°	7.6	9.7	31.3	85.2	162.9
65°	5.4	7.6	28.0	58.3	119.7
67.5°	5.4	8.6	23.7	37.8	80.9
70°	4.3	11.9	20.5	24.8	45.3
72.5°	4.3	12.9	17.3	17.3	17.3
75°	4.3	14.0	15.1	15.1	15.1
77.5°	4.3	12.9	14.0	12.9	12.9
80°	4.3	11.9	11.9	11.9	11.9
82.5°	4.3	10.8	11.9	11.9	9.7
85°	4.3	9.7	11.9	11.9	8.6
87.5°	3.2	9.7	10.8	10.8	6.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)