

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: P1060240

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060240
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-38)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-S1020D840-X4F0-XX-UDD-SVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

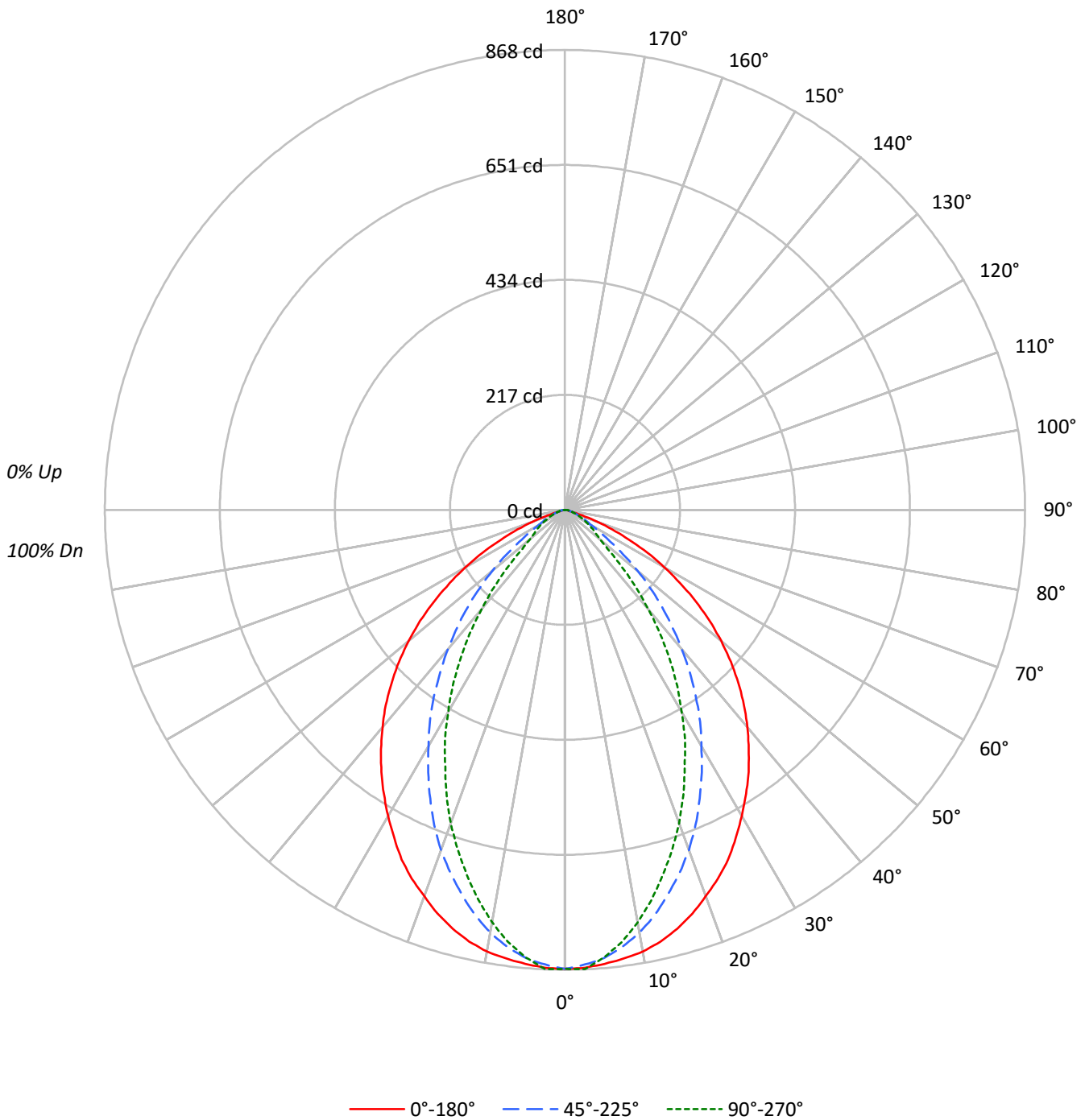
Lumens per Lamp: N/A
Luminaire Lumens: 1277.2 lumens
Efficiency: N/A
Efficacy: 36.5 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.87 / 1.02
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	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	97	98	96	94	95	93	92	90				
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80				
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73	71				
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63				
5	84	74	66	61	82	73	66	60	71	65	60	69	63	59	67	62	59	57				
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51				
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	48	47				
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	44	43				
9	65	53	46	41	64	53	46	41	52	46	41	51	45	41	50	45	41	39				
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7459	7459	7459
5°	7435	7341	7329
10°	7404	7083	6913
15°	7299	6700	6363
20°	7111	6261	5770
25°	6921	5715	5078
30°	6636	5120	4379
35°	6348	4528	3617
40°	6021	3853	2743
45°	5631	3150	1843
50°	5148	2386	1144
55°	4525	1575	971
60°	3741	966	799
65°	2710	746	646
70°	1475	554	491
75°	326	406	446
80°	243	302	362
85°	237	237	366

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5631 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.2	6.3
10°-20°	213.2	16.7
20°-30°	282.4	22.1
30°-40°	280.3	21.9
40°-50°	215.7	16.9
50°-60°	128.5	10.1
60°-70°	58.4	4.6
70°-80°	15.1	1.2
80°-90°	3.4	0.3
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°	575.8	45.1
0°-40°	856.1	67.0
0°-60°	1200.3	94.0
0°-90°	1277.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1277.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	866	866	866	866	866	
5°	860	861	849	849	848	82
15°	819	798	752	726	714	230
25°	728	676	602	552	534	334
35°	604	528	431	365	344	377
45°	462	372	259	181	151	356
55°	301	215	105	66	65	269
65°	133	79	37	32	32	134
75°	10	12	12	13	13	20
85°	2	2	2	4	4	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	866.2	866.2	866.2	866.2	866.2
2.5°	865.0	866.2	858.9	865.0	867.5
5°	860.1	861.4	849.2	849.2	847.9
7.5°	854.0	851.6	832.1	824.8	822.3
10°	846.7	838.2	810.1	795.5	790.6
12.5°	834.5	821.1	783.3	762.5	754.0
15°	818.7	797.9	751.6	725.9	713.7
17.5°	799.1	773.5	718.6	685.7	672.3
20°	776.0	741.8	683.2	641.8	629.6
22.5°	754.0	711.3	644.2	596.6	583.2
25°	728.4	675.9	601.5	551.5	534.4
27.5°	697.9	641.8	558.8	507.5	490.5
30°	667.4	605.2	514.9	461.2	440.4
32.5°	635.7	567.3	474.6	413.6	394.1
35°	603.9	528.3	430.7	364.8	344.1
37.5°	569.8	489.2	386.8	318.4	295.3
40°	535.6	451.4	342.8	273.3	244.0
42.5°	500.2	412.4	300.1	226.9	197.7
45°	462.4	372.1	258.7	180.6	151.3
47.5°	424.6	334.3	217.2	135.4	108.6
50°	384.3	294.0	178.1	98.8	85.4
52.5°	344.1	255.0	139.1	76.9	73.2
55°	301.4	214.7	104.9	65.9	64.7
57.5°	257.4	178.1	75.6	57.3	54.9
60°	217.2	144.0	56.1	48.8	46.4
62.5°	175.7	108.6	46.4	40.3	37.8
65°	133.0	79.3	36.6	31.7	31.7
67.5°	96.4	53.7	29.3	25.6	24.4
70°	58.6	32.9	22.0	20.7	19.5
72.5°	29.3	19.5	17.1	15.9	15.9
75°	9.8	12.2	12.2	13.4	13.4
77.5°	7.3	8.5	8.5	9.8	9.8
80°	4.9	6.1	6.1	7.3	7.3
82.5°	3.7	3.7	4.9	4.9	6.1
85°	2.4	2.4	2.4	3.7	3.7
87.5°	1.2	1.2	1.2	2.4	2.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)