

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 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: S124RDRP-S1020D840-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
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: S124RDRP-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

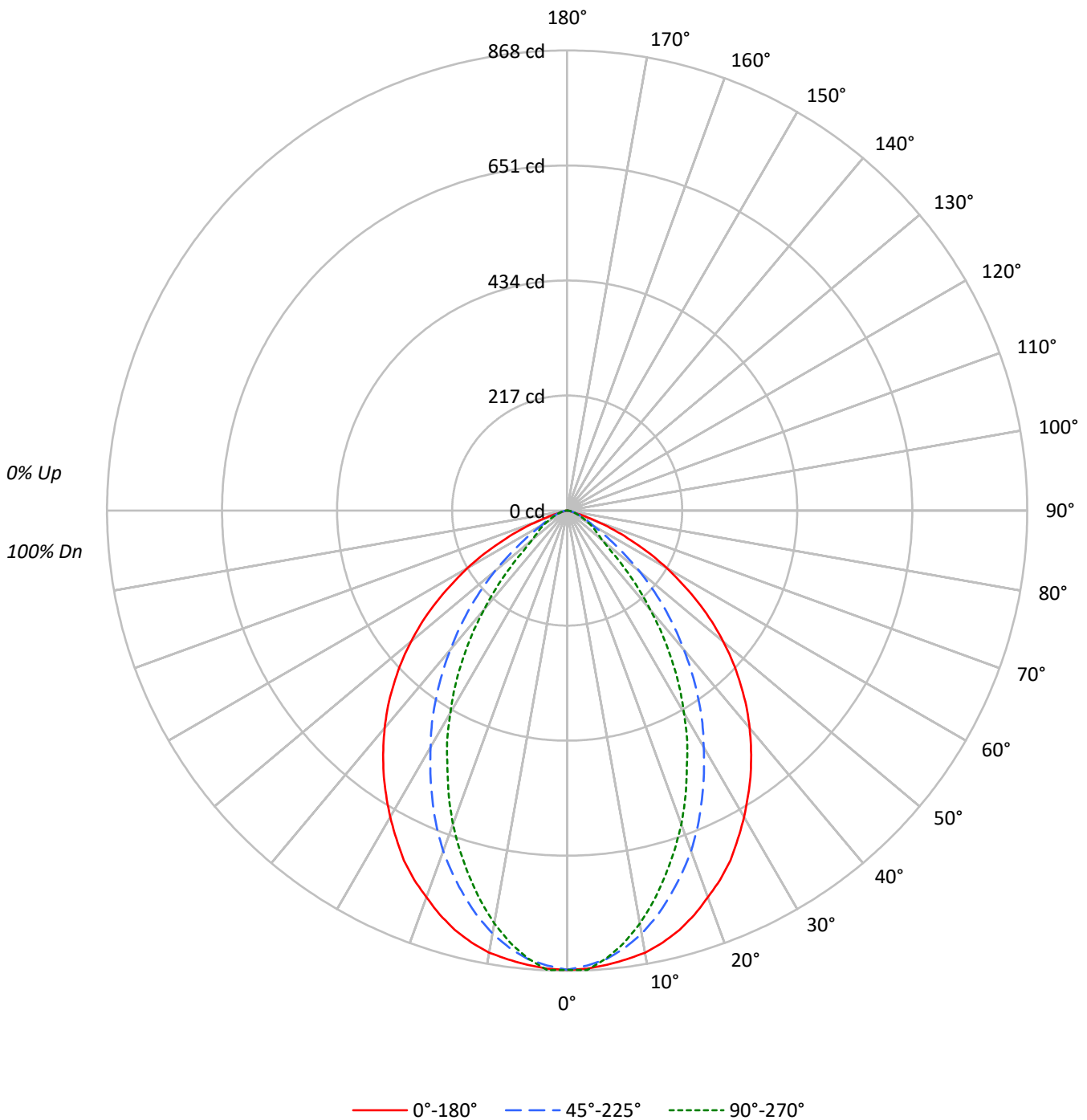
Lumens per Lamp: N/A
Luminaire Lumens: 1277.2 lumens
Efficiency: N/A
Efficacy: 36.5 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.87 / 1.02
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): 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	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



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	16.10	17.43	16.46	17.75	18.06	7.65	8.98	8.01	9.29	9.61
	3H	16.61	17.79	16.99	18.12	18.48	8.46	9.64	8.84	9.97	10.34
	4H	16.58	17.67	16.98	18.02	18.41	8.74	9.84	9.15	10.19	10.58
	6H	16.51	17.52	16.93	17.89	18.28	8.92	9.93	9.33	10.30	10.69
	8H	16.47	17.43	16.90	17.82	18.22	8.98	9.94	9.41	10.33	10.73
	12H	16.43	17.35	16.87	17.73	18.16	9.03	9.94	9.46	10.32	10.75
4H	2H	15.94	17.04	16.34	17.39	17.77	8.09	9.19	8.49	9.54	9.92
	3H	16.50	17.39	16.91	17.79	18.20	9.05	9.95	9.46	10.35	10.75
	4H	16.46	17.26	16.90	17.68	18.12	9.42	10.21	9.85	10.63	11.07
	6H	16.41	17.10	16.88	17.54	18.01	9.67	10.35	10.13	10.80	11.27
	8H	16.37	17.01	16.83	17.45	17.92	9.76	10.40	10.23	10.84	11.31
	12H	16.33	16.89	16.81	17.37	17.85	9.83	10.40	10.32	10.88	11.36
8H	4H	16.35	16.99	16.82	17.44	17.91	9.50	10.14	9.97	10.59	11.06
	6H	16.29	16.81	16.80	17.31	17.79	9.82	10.34	10.32	10.83	11.32
	8H	16.25	16.71	16.77	17.23	17.72	9.95	10.42	10.47	10.93	11.42
	12H	16.21	16.63	16.73	17.12	17.69	10.09	10.50	10.60	11.00	11.57
12H	4H	16.31	16.88	16.80	17.36	17.83	9.48	10.04	9.96	10.53	11.00
	6H	16.24	16.71	16.76	17.22	17.71	9.80	10.26	10.32	10.78	11.27
	8H	16.21	16.62	16.73	17.12	17.69	9.97	10.38	10.48	10.88	11.45