

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



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: P1060936

Luminaire Tested: S124RDR-H575D940-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060936
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-H575D940-X4F0-XX-UDD-WVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

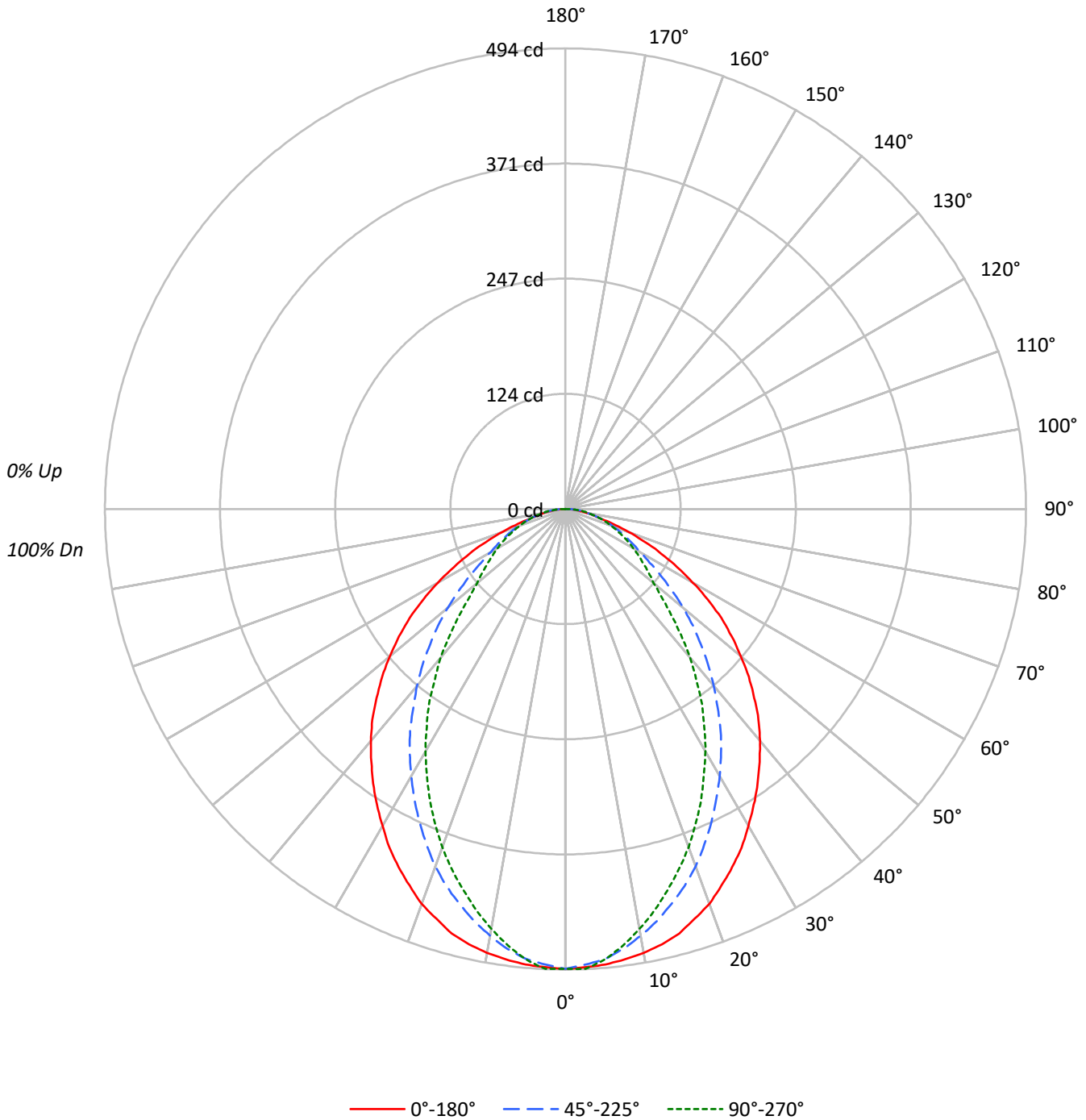
Lumens per Lamp: N/A
Luminaire Lumens: 951.2 lumens
Efficiency: N/A
Efficacy: 54.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
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	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°	4248	4248	4248
5°	4239	4189	4194
10°	4227	4065	3999
15°	4202	3912	3773
20°	4133	3740	3538
25°	4026	3519	3271
30°	3902	3291	2986
35°	3778	3053	2682
40°	3649	2782	2339
45°	3488	2499	1956
50°	3293	2205	1654
55°	3063	1871	1531
60°	2716	1588	1448
65°	2315	1465	1369
70°	1810	1357	1299
75°	1234	1254	1254
80°	1061	1180	1205
85°	919	1146	1265

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3488 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.9	4.8
10°-20°	124.6	13.1
20°-30°	173.0	18.2
30°-40°	185.5	19.5
40°-50°	164.3	17.3
50°-60°	123.8	13.0
60°-70°	80.2	8.4
70°-80°	41.1	4.3
80°-90°	12.6	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°	343.6	36.1
0°-40°	529.1	55.6
0°-60°	817.2	85.9
0°-90°	951.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	951.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	493	493	493	493	493	
5°	490	491	485	485	485	47
15°	471	461	439	428	423	133
25°	424	401	370	351	344	195
35°	359	327	290	264	255	225
45°	286	249	205	173	161	221
55°	204	170	125	105	102	181
65°	114	92	72	68	67	113
75°	37	39	38	38	38	44
85°	9	10	12	13	13	11
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	493.3	493.3	493.3	493.3	493.3
2.5°	492.1	493.9	489.2	492.7	493.9
5°	490.4	491.0	484.6	485.2	485.2
7.5°	487.5	486.3	475.9	473.0	472.4
10°	483.4	480.0	464.9	459.1	457.4
12.5°	478.2	471.9	452.7	444.6	441.1
15°	471.3	460.8	438.8	427.8	423.2
17.5°	460.8	447.5	424.3	410.4	405.2
20°	451.0	433.0	408.1	390.7	386.1
22.5°	437.1	417.9	389.5	371.0	365.2
25°	423.7	401.1	370.4	350.7	344.3
27.5°	409.3	383.7	350.7	329.8	321.7
30°	392.4	365.2	331.0	309.0	300.3
32.5°	376.2	347.2	310.7	286.4	277.1
35°	359.4	326.9	290.4	264.3	255.1
37.5°	342.0	307.8	267.8	242.3	230.1
40°	324.6	288.7	247.5	218.5	208.1
42.5°	306.6	269.0	226.7	196.5	183.2
45°	286.4	249.3	205.2	173.3	160.6
47.5°	266.7	230.1	185.5	150.7	139.1
50°	245.8	209.8	164.6	131.0	123.5
52.5°	224.9	189.0	144.3	115.9	112.5
55°	204.0	169.8	124.6	104.9	102.0
57.5°	180.9	150.1	107.2	95.1	92.7
60°	157.7	128.7	92.2	85.8	84.1
62.5°	135.1	110.1	81.7	76.5	75.4
65°	113.6	91.6	71.9	67.8	67.2
67.5°	92.7	75.4	62.6	60.3	59.1
70°	71.9	60.3	53.9	52.8	51.6
72.5°	53.3	48.7	45.8	45.2	44.6
75°	37.1	38.8	37.7	37.7	37.7
77.5°	29.6	30.1	30.7	31.3	30.7
80°	21.4	23.2	23.8	24.9	24.3
82.5°	15.1	16.2	18.0	18.5	19.1
85°	9.3	9.9	11.6	12.8	12.8
87.5°	4.1	4.6	5.8	7.0	7.5
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	15.46	16.96	15.83	17.28	17.59	12.03	13.53	12.40	13.84	14.16
	3H	16.67	18.01	17.05	18.34	18.70	13.73	15.07	14.10	15.40	15.76
	4H	16.98	18.23	17.38	18.58	18.96	14.40	15.66	14.80	16.01	16.39
	6H	17.18	18.34	17.59	18.71	19.10	14.95	16.11	15.36	16.48	16.87
	8H	17.24	18.34	17.66	18.73	19.13	15.17	16.27	15.59	16.66	17.07
	12H	17.27	18.33	17.70	18.71	19.14	15.34	16.40	15.77	16.78	17.21
4H	2H	15.61	16.87	16.01	17.21	17.59	12.69	13.95	13.09	14.30	14.68
	3H	17.01	18.05	17.42	18.45	18.85	14.60	15.65	15.01	16.05	16.45
	4H	17.43	18.37	17.87	18.79	19.23	15.40	16.34	15.84	16.76	17.20
	6H	17.76	18.58	18.22	19.02	19.48	16.09	16.91	16.55	17.35	17.81
	8H	17.86	18.62	18.32	19.07	19.53	16.36	17.13	16.83	17.57	18.04
	12H	17.93	18.61	18.41	19.09	19.56	16.59	17.27	17.07	17.75	18.22
8H	4H	17.56	18.33	18.03	18.77	19.24	15.72	16.48	16.18	16.93	17.40
	6H	17.98	18.61	18.48	19.11	19.58	16.55	17.18	17.04	17.67	18.15
	8H	18.14	18.71	18.65	19.22	19.71	16.91	17.48	17.42	17.99	18.48
	12H	18.27	18.77	18.78	19.26	19.83	17.25	17.75	17.76	18.24	18.80
12H	4H	17.57	18.25	18.05	18.73	19.20	15.75	16.43	16.23	16.91	17.38
	6H	18.01	18.58	18.52	19.09	19.57	16.61	17.17	17.12	17.68	18.17
	8H	18.22	18.72	18.73	19.21	19.78	17.04	17.54	17.55	18.03	18.60