

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: P1060930

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060930
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-39)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H575D940-X4F0-XX-UDD-BVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

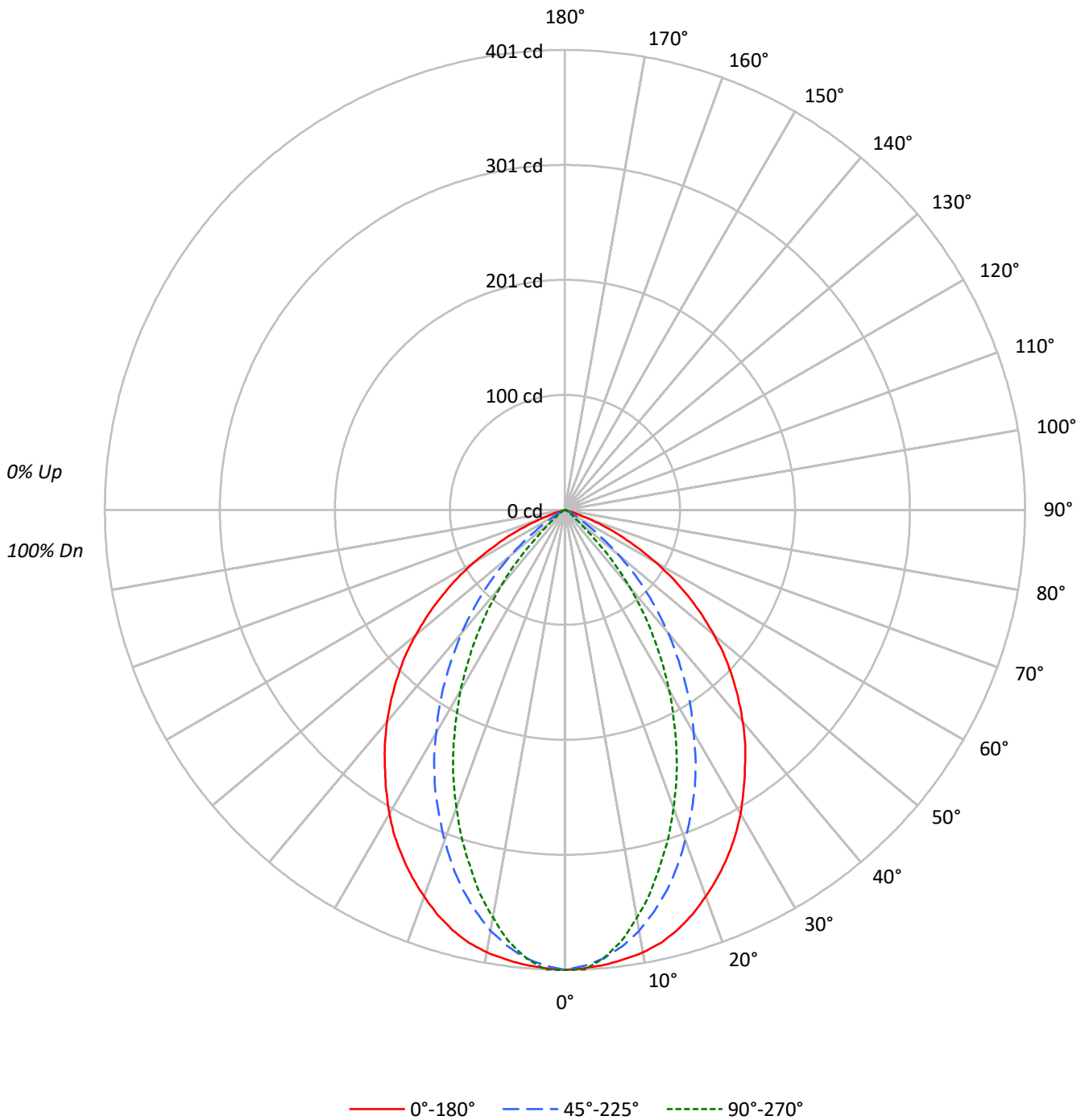
Lumens per Lamp: N/A
Luminaire Lumens: 523.8 lumens
Efficiency: N/A
Efficacy: 30.1 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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				100
1	112	109	106	103	110	107	104	102	103	101	99	99	97	96	96	94	93	91				91
2	105	99	95	90	103	98	93	89	94	91	87	91	88	86	88	86	84	82				82
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74				74
4	92	83	76	71	90	82	76	71	79	74	70	77	73	69	75	71	68	66				66
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60				60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55				55
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50				50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	47	46				46
9	67	56	49	44	66	56	49	44	54	48	44	54	48	44	53	48	44	42				42
10	64	52	46	41	63	52	45	41	51	45	41	50	45	41	49	44	41	39				39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3454	3454	3454
5°	3442	3392	3388
10°	3427	3259	3157
15°	3380	3060	2858
20°	3288	2810	2534
25°	3178	2544	2186
30°	3044	2230	1810
35°	2876	1913	1408
40°	2710	1570	984
45°	2514	1207	487
50°	2268	816	163
55°	1958	417	113
60°	1567	150	79
65°	1076	84	35
70°	481	43	30
75°	0	20	20
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2514 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.0	7.1
10°-20°	97.1	18.5
20°-30°	125.7	24.0
30°-40°	119.4	22.8
40°-50°	84.6	16.1
50°-60°	43.4	8.3
60°-70°	15.2	2.9
70°-80°	1.3	0.3
80°-90°	0.0	0.0
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°	259.8	49.6
0°-40°	379.3	72.4
0°-60°	507.3	96.8
0°-90°	523.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	523.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	401	401	401	401	401	
5°	398	399	392	392	392	38
15°	379	368	343	327	321	107
25°	334	308	268	239	230	154
35°	274	234	182	147	134	171
45°	206	159	99	57	40	159
55°	130	86	28	8	8	117
65°	53	26	4	2	2	52
75°	0	1	1	1	1	4
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	401.1	401.1	401.1	401.1	401.1
2.5°	400.0	401.1	397.7	400.6	401.1
5°	398.2	398.8	392.4	392.4	391.9
7.5°	395.3	394.2	383.7	379.7	379.1
10°	391.9	387.8	372.7	364.0	361.1
12.5°	386.6	379.1	358.8	346.1	342.6
15°	379.1	367.5	343.2	326.9	320.6
17.5°	369.8	354.8	325.8	306.1	299.7
20°	358.8	339.7	306.6	284.6	276.5
22.5°	347.2	325.2	286.9	262.0	253.9
25°	334.5	308.4	267.8	239.4	230.1
27.5°	321.1	290.4	246.9	217.4	205.2
30°	306.1	272.4	224.3	193.6	182.0
32.5°	289.8	252.7	204.0	171.0	157.1
35°	273.6	233.6	182.0	146.7	133.9
37.5°	258.0	215.6	160.0	122.9	110.7
40°	241.1	195.9	139.7	101.4	87.5
42.5°	223.8	176.8	118.8	79.4	64.3
45°	206.4	158.8	99.1	56.8	40.0
47.5°	189.0	139.7	80.0	35.9	21.4
50°	169.3	121.2	60.9	19.1	12.2
52.5°	150.7	103.8	43.5	11.0	9.3
55°	130.4	85.8	27.8	8.1	7.5
57.5°	111.3	68.4	15.7	6.4	5.8
60°	91.0	52.8	8.7	5.2	4.6
62.5°	70.7	38.3	5.8	3.5	2.9
65°	52.8	25.5	4.1	2.3	1.7
67.5°	34.8	14.5	2.9	1.2	1.2
70°	19.1	7.0	1.7	1.2	1.2
72.5°	7.0	2.3	1.2	0.6	0.6
75°	0.0	0.6	0.6	0.6	0.6
77.5°	0.0	0.0	0.0	0.0	0.6
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	12.84	14.09	13.20	14.40	14.72	0.00	0.00	0.00	0.00	0.00
	3H	13.11	14.22	13.49	14.55	14.92	0.00	0.00	0.00	0.00	0.00
	4H	13.04	14.06	13.44	14.41	14.80	0.00	0.00	0.00	0.00	0.00
	6H	12.95	13.89	13.37	14.26	14.66	0.00	0.00	0.00	0.00	0.00
	8H	12.90	13.79	13.34	14.18	14.59	0.00	0.00	0.00	0.00	0.00
	12H	12.86	13.70	13.29	14.09	14.52	0.00	0.00	0.00	0.00	0.00
4H	2H	12.61	13.63	13.01	13.99	14.37	0.00	0.00	0.00	0.00	0.00
	3H	12.89	13.72	13.31	14.13	14.53	0.00	0.00	0.00	0.00	0.00
	4H	12.80	13.54	13.24	13.96	14.40	0.00	0.00	0.00	0.00	0.00
	6H	12.71	13.34	13.18	13.79	14.26	0.00	0.00	0.00	0.00	0.00
	8H	12.65	13.24	13.12	13.69	14.16	0.00	0.00	0.00	0.00	0.00
	12H	12.60	13.12	13.09	13.60	14.08	0.00	0.00	0.00	0.00	0.00
8H	4H	12.65	13.24	13.12	13.69	14.16	0.00	0.00	0.00	0.00	0.00
	6H	12.54	13.02	13.05	13.52	14.00	0.00	0.00	0.00	0.00	0.00
	8H	12.48	12.90	13.00	13.42	13.92	0.00	0.00	0.00	0.00	0.00
	12H	12.43	12.80	12.94	13.30	13.87	0.00	0.00	0.00	0.00	0.00
12H	4H	12.60	13.12	13.09	13.60	14.08	0.00	0.00	0.00	0.00	0.00
	6H	12.48	12.90	13.00	13.42	13.92	0.00	0.00	0.00	0.00	0.00
	8H	12.43	12.80	12.94	13.30	13.87	0.00	0.00	0.00	0.00	0.00