

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: P1060774

Luminaire Tested: S124RDR-H1195D940-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060774
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-H1195D940-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

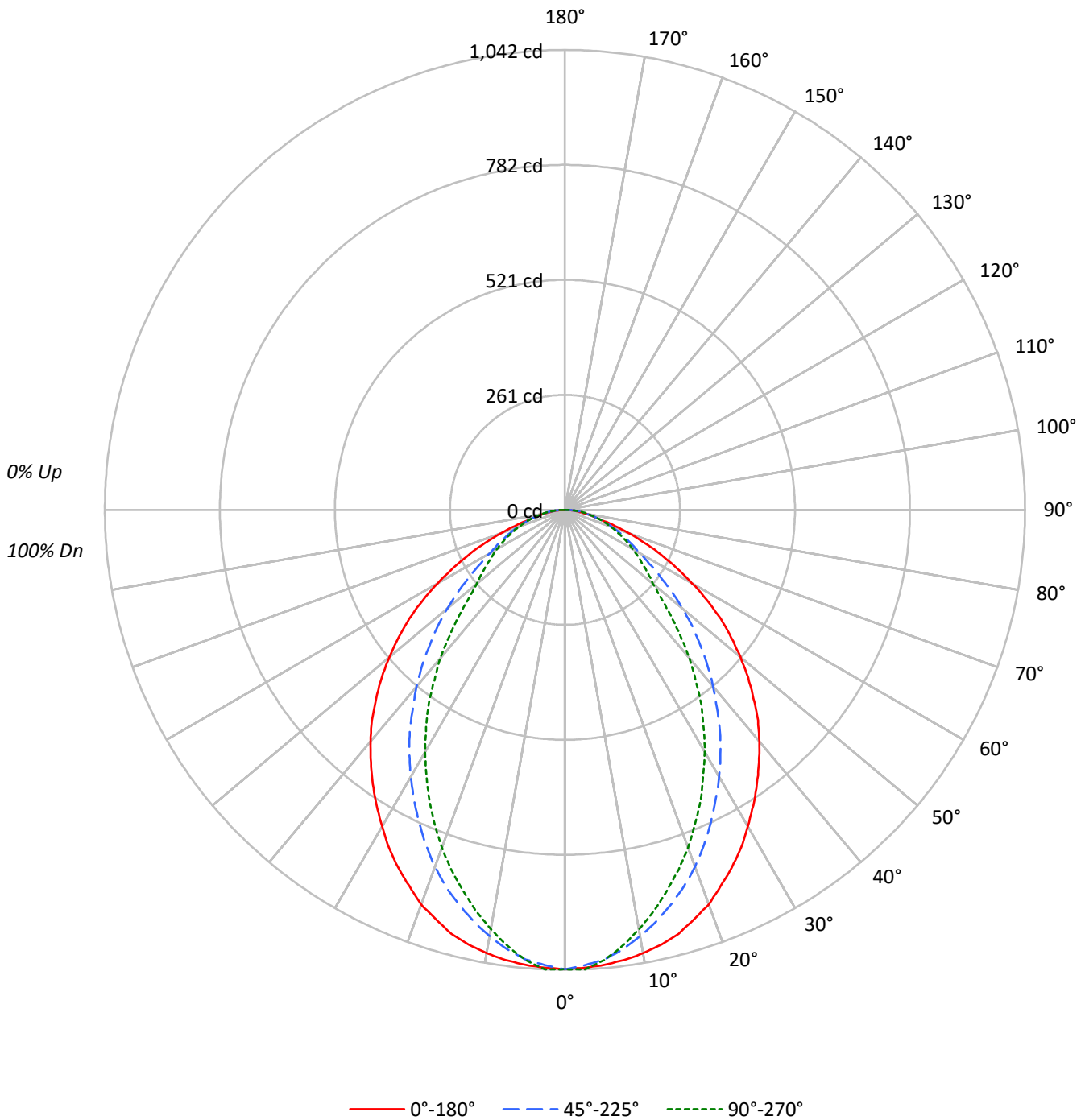
Lumens per Lamp: N/A
Luminaire Lumens: 2006.9 lumens
Efficiency: N/A
Efficacy: 55.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
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	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°	8962	8962	8962
5°	8944	8839	8849
10°	8919	8577	8438
15°	8864	8253	7959
20°	8719	7890	7464
25°	8494	7425	6903
30°	8233	6944	6299
35°	7971	6441	5657
40°	7699	5870	4936
45°	7358	5273	4126
50°	6947	4653	3490
55°	6463	3948	3232
60°	5730	3350	3054
65°	4884	3091	2891
70°	3819	2863	2742
75°	2605	2645	2645
80°	2246	2484	2549
85°	1937	2421	2658

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7358 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.8	4.8
10°-20°	263.0	13.1
20°-30°	365.1	18.2
30°-40°	391.4	19.5
40°-50°	346.7	17.3
50°-60°	261.3	13.0
60°-70°	169.2	8.4
70°-80°	86.8	4.3
80°-90°	26.6	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°	724.9	36.1
0°-40°	1116.3	55.6
0°-60°	1724.2	85.9
0°-90°	2006.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2006.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1041	1041	1041	1041	1041	
5°	1035	1036	1022	1024	1024	98
15°	994	972	926	903	893	280
25°	894	846	782	740	726	411
35°	758	690	613	558	538	474
45°	604	526	433	366	339	466
55°	430	358	263	221	215	382
65°	240	193	152	143	142	238
75°	78	82	80	80	80	93
85°	20	21	24	27	27	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1040.8	1040.8	1040.8	1040.8	1040.8
2.5°	1038.4	1042.0	1032.3	1039.6	1042.0
5°	1034.7	1035.9	1022.5	1023.7	1023.7
7.5°	1028.6	1026.1	1004.1	998.0	996.8
10°	1020.0	1012.7	980.9	968.7	965.0
12.5°	1009.0	995.6	955.2	938.1	930.7
15°	994.3	972.3	925.8	902.6	892.8
17.5°	972.3	944.2	895.3	865.9	854.9
20°	951.5	913.6	861.0	824.3	814.5
22.5°	922.2	881.8	821.9	782.8	770.5
25°	894.0	846.3	781.5	739.9	726.5
27.5°	863.5	809.7	739.9	695.9	678.8
30°	828.0	770.5	698.4	651.9	633.5
32.5°	793.8	732.6	655.6	604.2	584.6
35°	758.3	689.8	612.7	557.7	538.1
37.5°	721.6	649.4	565.0	511.2	485.5
40°	684.9	609.1	522.2	461.1	439.1
42.5°	647.0	567.5	478.2	414.6	386.5
45°	604.2	525.9	433.0	365.7	338.8
47.5°	562.6	485.5	391.4	318.0	293.5
50°	518.6	442.7	347.3	276.4	260.5
52.5°	474.5	398.7	304.5	244.6	237.3
55°	430.5	358.4	263.0	221.4	215.3
57.5°	381.6	316.8	226.3	200.6	195.7
60°	332.7	271.5	194.5	181.0	177.3
62.5°	285.0	232.4	172.4	161.4	159.0
65°	239.7	193.2	151.7	143.1	141.9
67.5°	195.7	159.0	132.1	127.2	124.8
70°	151.7	127.2	113.7	111.3	108.9
72.5°	112.5	102.7	96.6	95.4	94.2
75°	78.3	81.9	79.5	79.5	79.5
77.5°	62.4	63.6	64.8	66.0	64.8
80°	45.3	48.9	50.1	52.6	51.4
82.5°	31.8	34.2	37.9	39.1	40.4
85°	19.6	20.8	24.5	26.9	26.9
87.5°	8.6	9.8	12.2	14.7	15.9
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	18.06	19.56	18.42	19.87	20.19	14.62	16.12	14.99	16.44	16.75
	3H	19.26	20.61	19.64	20.94	21.30	16.32	17.66	16.70	17.99	18.35
	4H	19.57	20.83	19.97	21.18	21.56	17.00	18.26	17.40	18.61	18.99
	6H	19.77	20.94	20.19	21.30	21.70	17.55	18.71	17.96	19.08	19.47
	8H	19.83	20.94	20.26	21.33	21.73	17.76	18.87	18.19	19.26	19.66
	12H	19.87	20.92	20.30	21.31	21.74	17.94	19.00	18.37	19.38	19.81
4H	2H	18.20	19.46	18.60	19.81	20.19	15.28	16.54	15.68	16.89	17.27
	3H	19.60	20.65	20.01	21.05	21.45	17.19	18.24	17.60	18.64	19.04
	4H	20.03	20.97	20.46	21.39	21.82	18.00	18.94	18.43	19.35	19.79
	6H	20.35	21.17	20.81	21.61	22.07	18.68	19.50	19.14	19.94	20.40
	8H	20.45	21.22	20.92	21.66	22.13	18.96	19.72	19.42	20.17	20.63
	12H	20.52	21.20	21.00	21.68	22.15	19.19	19.87	19.67	20.35	20.82
8H	4H	20.16	20.92	20.62	21.36	21.83	18.31	19.08	18.78	19.52	19.99
	6H	20.58	21.21	21.07	21.70	22.18	19.14	19.77	19.64	20.26	20.74
	8H	20.73	21.30	21.25	21.81	22.30	19.51	20.07	20.02	20.58	21.07
	12H	20.86	21.36	21.37	21.86	22.42	19.84	20.34	20.35	20.83	21.40
12H	4H	20.16	20.84	20.64	21.32	21.79	18.34	19.02	18.82	19.50	19.97
	6H	20.60	21.17	21.12	21.68	22.17	19.20	19.77	19.71	20.28	20.77
	8H	20.81	21.31	21.32	21.80	22.37	19.63	20.13	20.14	20.63	21.19