

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: P1060765

Luminaire Tested: S124RDR-H1195D935-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060765
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-H1195D935-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: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

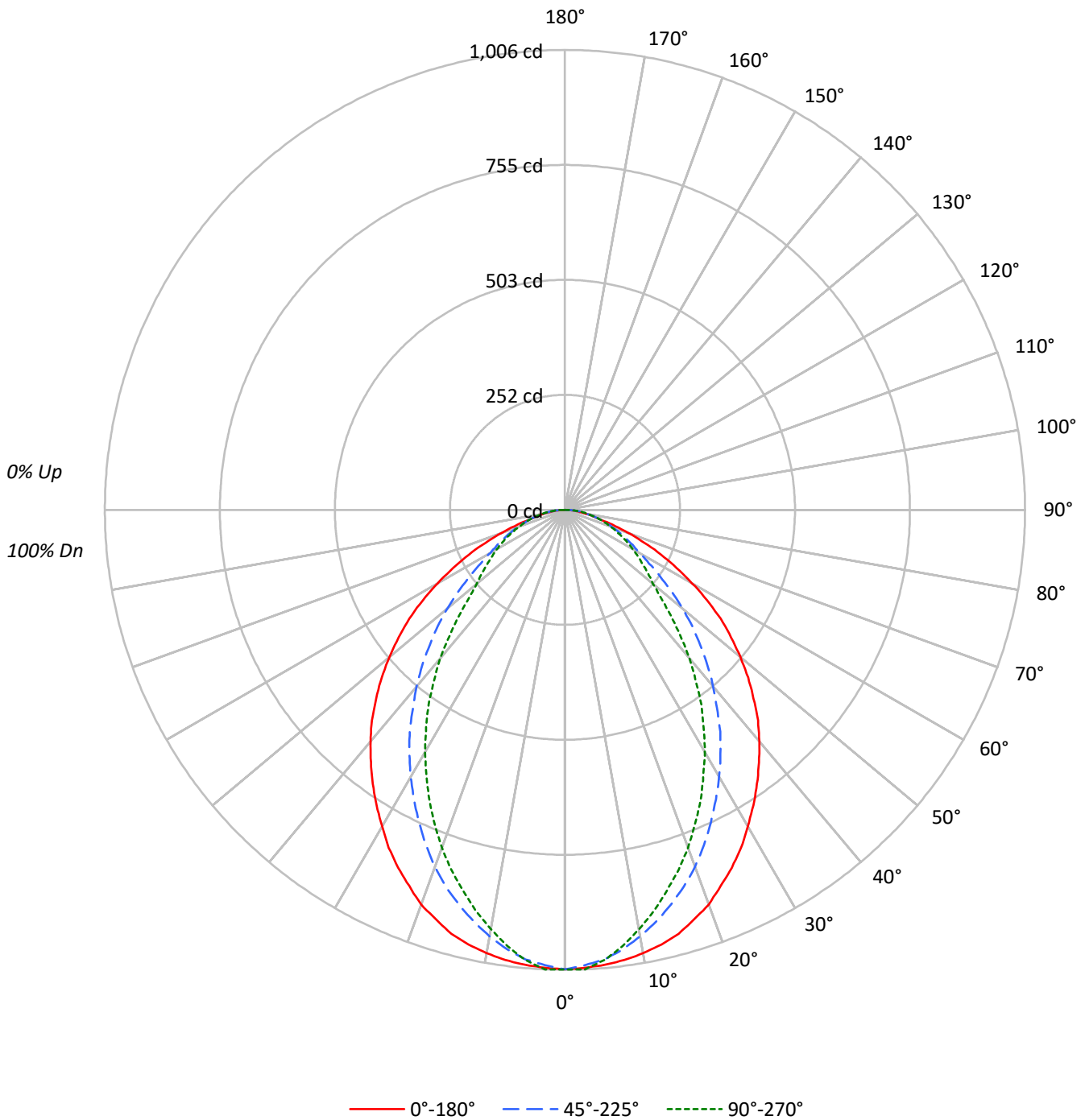
Lumens per Lamp: N/A
Luminaire Lumens: 1937.8 lumens
Efficiency: N/A
Efficacy: 53.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	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	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86				86
2	101	94	88	83	99	92	86	82	89	84	80	85	82	78	82	79	76	74				74
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66	64				64
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56				56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50				50
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44				44
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40				40
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38	36				36
9	61	48	40	35	59	48	40	35	46	40	35	45	39	35	44	39	35	33				33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	30				30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8654	8654	8654
5°	8636	8534	8544
10°	8612	8281	8147
15°	8559	7970	7686
20°	8420	7619	7207
25°	8203	7170	6665
30°	7950	6705	6082
35°	7697	6219	5462
40°	7434	5669	4766
45°	7105	5090	3983
50°	6708	4493	3369
55°	6241	3812	3120
60°	5532	3234	2948
65°	4717	2983	2791
70°	3686	2764	2646
75°	2515	2555	2555
80°	2167	2400	2460
85°	1867	2332	2569

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7105 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.5	4.8
10°-20°	253.9	13.1
20°-30°	352.5	18.2
30°-40°	377.9	19.5
40°-50°	334.8	17.3
50°-60°	252.3	13.0
60°-70°	163.4	8.4
70°-80°	83.8	4.3
80°-90°	25.7	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°	699.9	36.1
0°-40°	1077.8	55.6
0°-60°	1664.9	85.9
0°-90°	1937.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1937.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1005	1005	1005	1005	1005	
5°	999	1000	987	988	988	95
15°	960	939	894	872	862	270
25°	863	817	755	714	702	397
35°	732	666	592	538	520	458
45°	583	508	418	353	327	450
55°	416	346	254	214	208	369
65°	232	187	146	138	137	230
75°	76	79	77	77	77	89
85°	19	20	24	26	26	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1005.0	1005.0	1005.0	1005.0	1005.0
2.5°	1002.6	1006.1	996.7	1003.8	1006.1
5°	999.1	1000.2	987.3	988.4	988.4
7.5°	993.2	990.8	969.5	963.6	962.5
10°	984.9	977.8	947.1	935.3	931.7
12.5°	974.3	961.3	922.3	905.8	898.7
15°	960.1	938.8	894.0	871.5	862.1
17.5°	938.8	911.7	864.4	836.1	825.5
20°	918.8	882.1	831.4	795.9	786.5
22.5°	890.4	851.4	793.6	755.8	744.0
25°	863.3	817.2	754.6	714.5	701.5
27.5°	833.7	781.8	714.5	671.9	655.4
30°	799.5	744.0	674.3	629.4	611.7
32.5°	766.4	707.4	633.0	583.4	564.5
35°	732.2	666.0	591.6	538.5	519.6
37.5°	696.7	627.1	545.6	493.6	468.8
40°	661.3	588.1	504.3	445.2	424.0
42.5°	624.7	547.9	461.7	400.3	373.2
45°	583.4	507.8	418.0	353.1	327.1
47.5°	543.2	468.8	377.9	307.0	283.4
50°	500.7	427.5	335.4	266.9	251.5
52.5°	458.2	385.0	294.0	236.2	229.1
55°	415.7	346.0	253.9	213.7	207.8
57.5°	368.4	305.9	218.5	193.7	188.9
60°	321.2	262.2	187.8	174.8	171.2
62.5°	275.2	224.4	166.5	155.9	153.5
65°	231.5	186.6	146.4	138.2	137.0
67.5°	188.9	153.5	127.5	122.8	120.5
70°	146.4	122.8	109.8	107.5	105.1
72.5°	108.6	99.2	93.3	92.1	90.9
75°	75.6	79.1	76.8	76.8	76.8
77.5°	60.2	61.4	62.6	63.8	62.6
80°	43.7	47.2	48.4	50.8	49.6
82.5°	30.7	33.1	36.6	37.8	39.0
85°	18.9	20.1	23.6	26.0	26.0
87.5°	8.3	9.4	11.8	14.2	15.4
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	17.94	19.44	18.30	19.75	20.06	14.50	16.00	14.87	16.31	16.63
	3H	19.14	20.49	19.52	20.81	21.18	16.20	17.54	16.58	17.87	18.23
	4H	19.45	20.71	19.85	21.06	21.44	16.88	18.14	17.28	18.48	18.86
	6H	19.65	20.81	20.06	21.18	21.57	17.42	18.59	17.84	18.95	19.35
	8H	19.71	20.82	20.14	21.21	21.61	17.64	18.75	18.07	19.14	19.54
	12H	19.74	20.80	20.17	21.18	21.61	17.82	18.88	18.25	19.26	19.69
4H	2H	18.08	19.34	18.48	19.69	20.07	15.16	16.42	15.56	16.77	17.15
	3H	19.48	20.53	19.89	20.93	21.33	17.07	18.12	17.48	18.52	18.92
	4H	19.91	20.85	20.34	21.26	21.70	17.87	18.81	18.31	19.23	19.67
	6H	20.23	21.05	20.69	21.49	21.95	18.56	19.38	19.02	19.82	20.28
	8H	20.33	21.09	20.79	21.54	22.01	18.84	19.60	19.30	20.04	20.51
	12H	20.40	21.08	20.88	21.56	22.03	19.07	19.75	19.55	20.23	20.70
8H	4H	20.03	20.80	20.50	21.24	21.71	18.19	18.96	18.65	19.40	19.87
	6H	20.46	21.09	20.95	21.58	22.06	19.02	19.65	19.52	20.14	20.62
	8H	20.61	21.18	21.13	21.69	22.18	19.39	19.95	19.90	20.46	20.95
	12H	20.74	21.24	21.25	21.74	22.30	19.72	20.22	20.23	20.71	21.28
12H	4H	20.04	20.72	20.52	21.20	21.67	18.22	18.90	18.70	19.38	19.85
	6H	20.48	21.05	20.99	21.56	22.05	19.08	19.65	19.59	20.16	20.65
	8H	20.69	21.19	21.20	21.68	22.25	19.51	20.01	20.02	20.51	21.07