

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: P1060720

Luminaire Tested: S124RDR-H1195D835-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060720
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-H1195D835-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, 80 CRI LEDS
Ballast/Driver: -

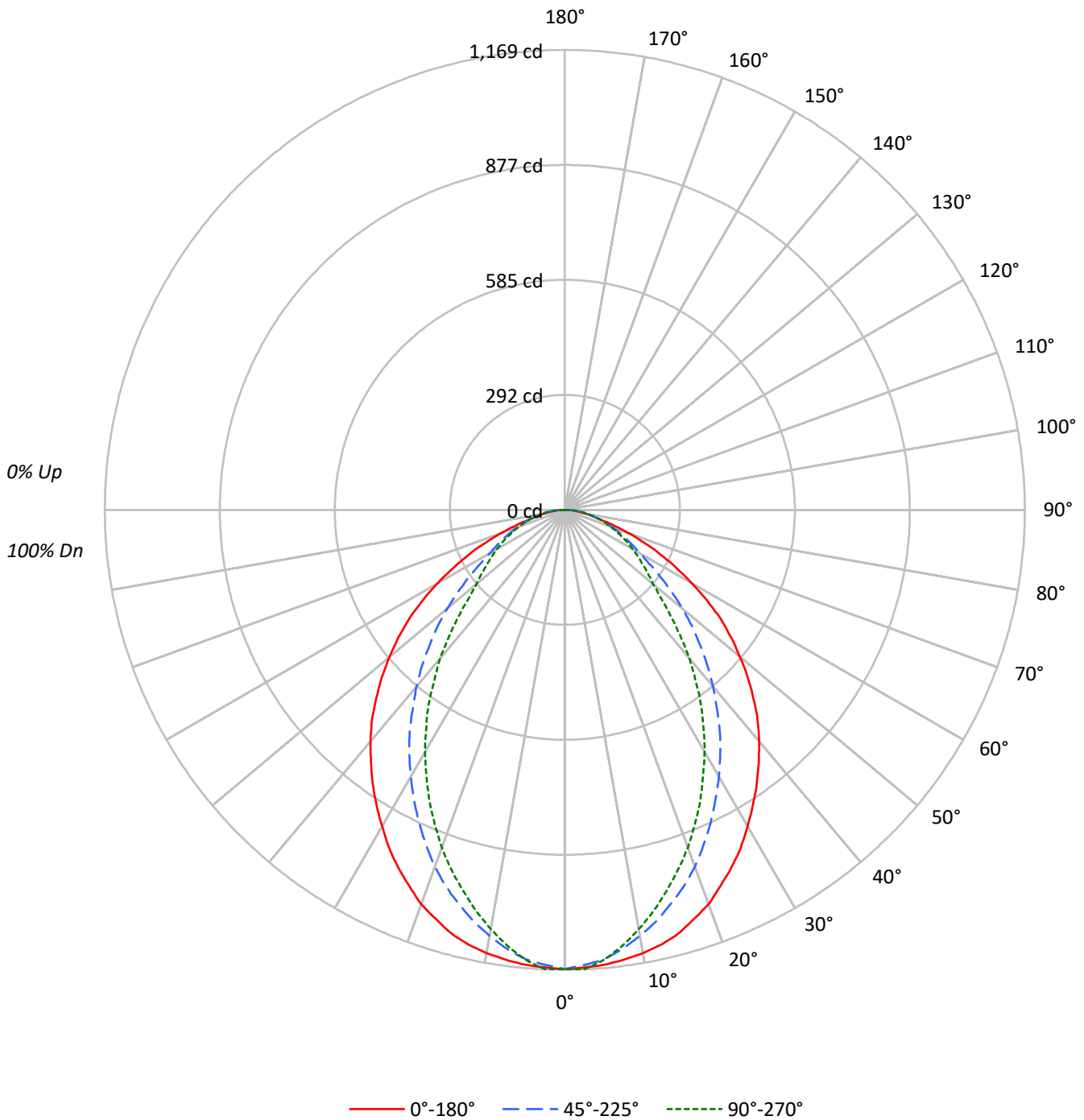
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2250.6 lumens
Efficiency: N/A
Efficacy: 61.7 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): 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									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	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°	10051	10051	10051
5°	10031	9911	9923
10°	10002	9618	9463
15°	9941	9256	8926
20°	9779	8849	8371
25°	9526	8327	7741
30°	9233	7788	7065
35°	8940	7224	6344
40°	8634	6584	5535
45°	8252	5912	4626
50°	7790	5218	3913
55°	7248	4427	3624
60°	6426	3756	3426
65°	5477	3466	3242
70°	4283	3213	3074
75°	2921	2968	2968
80°	2514	2787	2856
85°	2164	2707	2984

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8252 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.6	4.8
10°-20°	294.9	13.1
20°-30°	409.4	18.2
30°-40°	438.9	19.5
40°-50°	388.8	17.3
50°-60°	293.0	13.0
60°-70°	189.7	8.4
70°-80°	97.4	4.3
80°-90°	29.9	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°	812.9	36.1
0°-40°	1251.8	55.6
0°-60°	1933.6	85.9
0°-90°	2250.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2250.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1167	1167	1167	1167	1167	
5°	1160	1162	1147	1148	1148	110
15°	1115	1090	1038	1012	1001	314
25°	1003	949	876	830	815	461
35°	850	774	687	625	604	532
45°	678	590	486	410	380	522
55°	483	402	295	248	241	429
65°	269	217	170	160	159	267
75°	88	92	89	89	89	104
85°	22	23	27	30	30	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1167.2	1167.2	1167.2	1167.2	1167.2
2.5°	1164.5	1168.6	1157.6	1165.8	1168.6
5°	1160.4	1161.7	1146.6	1148.0	1148.0
7.5°	1153.5	1150.8	1126.1	1119.2	1117.8
10°	1143.9	1135.7	1100.0	1086.3	1082.2
12.5°	1131.5	1116.5	1071.2	1052.0	1043.8
15°	1115.1	1090.4	1038.3	1012.2	1001.2
17.5°	1090.4	1058.9	1004.0	971.1	958.7
20°	1067.1	1024.6	965.6	924.4	913.5
22.5°	1034.2	988.9	921.7	877.8	864.1
25°	1002.6	949.1	876.4	829.8	814.7
27.5°	968.3	908.0	829.8	780.4	761.2
30°	928.6	864.1	783.2	731.0	710.5
32.5°	890.2	821.6	735.2	677.6	655.6
35°	850.4	773.6	687.2	625.4	603.5
37.5°	809.2	728.3	633.7	573.3	544.5
40°	768.1	683.0	585.7	517.1	492.4
42.5°	725.6	636.4	536.3	465.0	433.4
45°	677.6	589.8	485.5	410.1	379.9
47.5°	630.9	544.5	438.9	356.6	329.2
50°	581.5	496.5	389.5	310.0	292.1
52.5°	532.2	447.1	341.5	274.3	266.1
55°	482.8	401.9	294.9	248.3	241.4
57.5°	427.9	355.2	253.7	224.9	219.5
60°	373.1	304.5	218.1	203.0	198.9
62.5°	319.6	260.6	193.4	181.0	178.3
65°	268.8	216.7	170.1	160.5	159.1
67.5°	219.5	178.3	148.1	142.6	139.9
70°	170.1	142.6	127.6	124.8	122.1
72.5°	126.2	115.2	108.4	107.0	105.6
75°	87.8	91.9	89.2	89.2	89.2
77.5°	70.0	71.3	72.7	74.1	72.7
80°	50.7	54.9	56.2	59.0	57.6
82.5°	35.7	38.4	42.5	43.9	45.3
85°	21.9	23.3	27.4	30.2	30.2
87.5°	9.6	11.0	13.7	16.5	17.8
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	18.46	19.95	18.82	20.27	20.58	15.02	16.52	15.39	16.83	17.15
	3H	19.66	21.00	20.04	21.33	21.70	16.72	18.06	17.09	18.39	18.75
	4H	19.97	21.23	20.37	21.58	21.96	17.39	18.65	17.79	19.00	19.38
	6H	20.17	21.33	20.58	21.70	22.09	17.94	19.11	18.36	19.47	19.87
	8H	20.23	21.34	20.66	21.73	22.13	18.16	19.27	18.59	19.66	20.06
	12H	20.26	21.32	20.69	21.70	22.13	18.33	19.39	18.77	19.78	20.21
4H	2H	18.60	19.86	19.00	20.21	20.59	15.68	16.94	16.08	17.29	17.67
	3H	20.00	21.05	20.41	21.45	21.85	17.59	18.64	18.00	19.04	19.44
	4H	20.43	21.37	20.86	21.78	22.22	18.39	19.33	18.83	19.75	20.19
	6H	20.75	21.57	21.21	22.01	22.47	19.08	19.90	19.54	20.34	20.80
	8H	20.85	21.61	21.31	22.06	22.53	19.36	20.12	19.82	20.56	21.03
	12H	20.92	21.60	21.40	22.08	22.55	19.59	20.27	20.07	20.75	21.22
8H	4H	20.55	21.32	21.02	21.76	22.23	18.71	19.47	19.17	19.92	20.39
	6H	20.98	21.61	21.47	22.10	22.58	19.54	20.17	20.04	20.66	21.14
	8H	21.13	21.70	21.65	22.21	22.70	19.90	20.47	20.42	20.98	21.47
	12H	21.26	21.76	21.77	22.26	22.82	20.24	20.74	20.75	21.23	21.80
12H	4H	20.56	21.24	21.04	21.72	22.19	18.74	19.42	19.22	19.90	20.37
	6H	21.00	21.57	21.51	22.08	22.57	19.60	20.17	20.11	20.68	21.17
	8H	21.21	21.71	21.72	22.20	22.77	20.03	20.53	20.54	21.03	21.59