

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: P1060711

Luminaire Tested: S124RDR-H1195D830-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060711
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-H1195D830-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: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

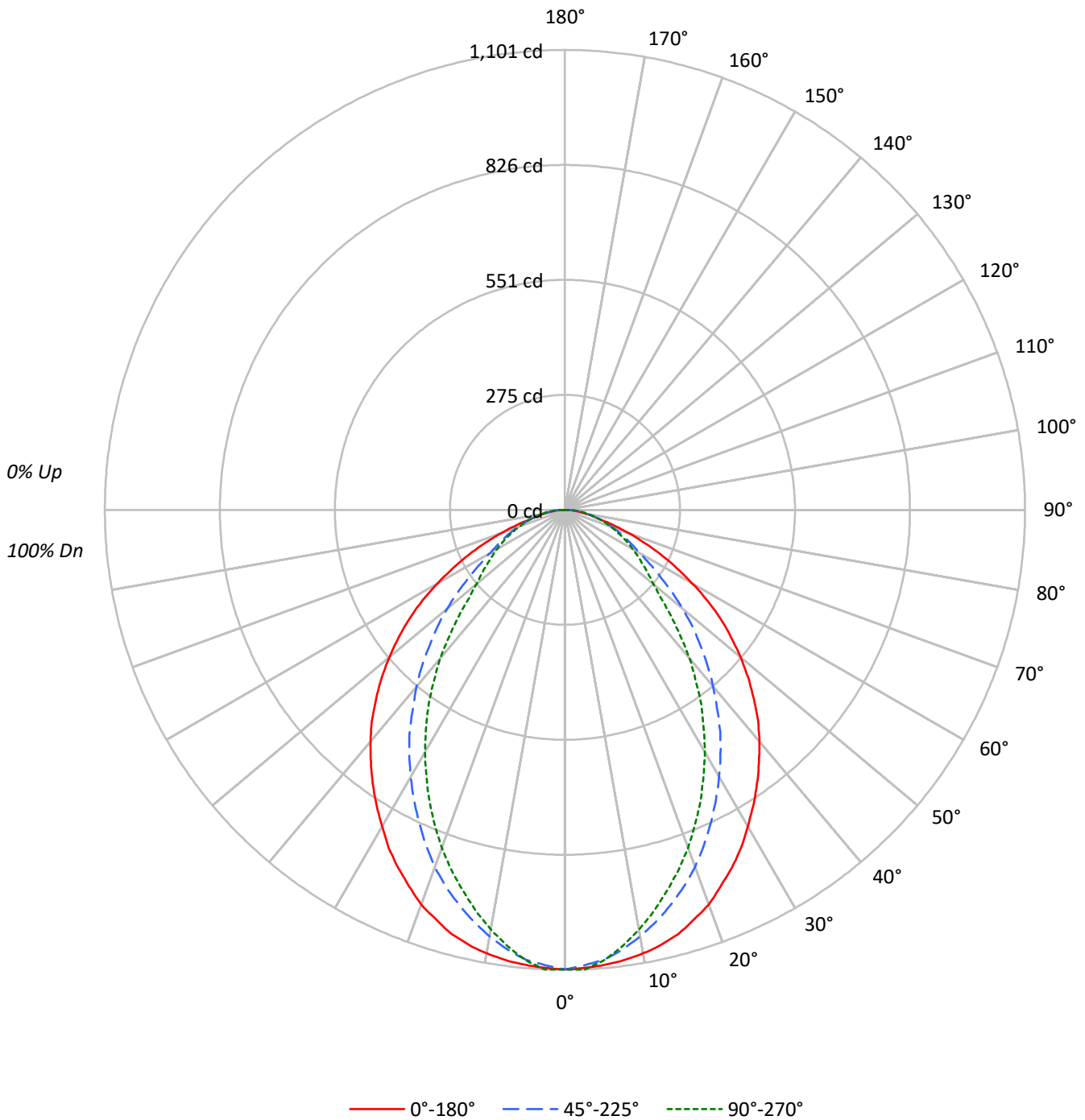
Lumens per Lamp: N/A
Luminaire Lumens: 2121.3 lumens
Efficiency: N/A
Efficacy: 58.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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°	9473	9473	9473
5°	9454	9342	9353
10°	9428	9066	8919
15°	9370	8724	8413
20°	9217	8340	7890
25°	8979	7849	7296
30°	8702	7340	6659
35°	8426	6809	5979
40°	8137	6205	5217
45°	7777	5573	4361
50°	7343	4918	3689
55°	6832	4172	3415
60°	6055	3539	3229
65°	5163	3266	3056
70°	4036	3026	2898
75°	2752	2795	2795
80°	2370	2628	2693
85°	2045	2559	2806

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7777 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.4	4.8
10°-20°	278.0	13.1
20°-30°	385.9	18.2
30°-40°	413.7	19.5
40°-50°	366.5	17.3
50°-60°	276.2	13.0
60°-70°	178.8	8.4
70°-80°	91.7	4.3
80°-90°	28.2	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°	766.2	36.1
0°-40°	1179.9	55.6
0°-60°	1822.5	85.9
0°-90°	2121.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2121.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1100	1100	1100	1100	1100	
5°	1094	1095	1081	1082	1082	104
15°	1051	1028	979	954	944	296
25°	945	895	826	782	768	435
35°	802	729	648	590	569	501
45°	639	556	458	386	358	492
55°	455	379	278	234	228	404
65°	253	204	160	151	150	251
75°	83	87	84	84	84	98
85°	21	22	26	28	28	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1100.1	1100.1	1100.1	1100.1	1100.1
2.5°	1097.6	1101.4	1091.1	1098.9	1101.4
5°	1093.7	1095.0	1080.8	1082.0	1082.0
7.5°	1087.2	1084.6	1061.4	1054.9	1053.6
10°	1078.2	1070.4	1036.8	1023.9	1020.0
12.5°	1066.5	1052.3	1009.7	991.6	983.8
15°	1051.0	1027.7	978.6	954.1	943.7
17.5°	1027.7	998.0	946.3	915.3	903.6
20°	1005.8	965.7	910.1	871.3	861.0
22.5°	974.7	932.1	868.7	827.4	814.4
25°	945.0	894.6	826.1	782.1	767.9
27.5°	912.7	855.8	782.1	735.6	717.5
30°	875.2	814.4	738.2	689.0	669.7
32.5°	839.0	774.4	692.9	638.6	617.9
35°	801.5	729.1	647.7	589.5	568.8
37.5°	762.7	686.5	597.3	540.4	513.2
40°	723.9	643.8	552.0	487.4	464.1
42.5°	683.9	599.8	505.5	438.2	408.5
45°	638.6	555.9	457.6	386.5	358.1
47.5°	594.7	513.2	413.7	336.1	310.3
50°	548.1	468.0	367.1	292.2	275.4
52.5°	501.6	421.4	321.9	258.6	250.8
55°	455.1	378.8	277.9	234.0	227.5
57.5°	403.3	334.8	239.2	212.0	206.8
60°	351.6	287.0	205.5	191.3	187.5
62.5°	301.2	245.6	182.3	170.6	168.1
65°	253.4	204.3	160.3	151.3	150.0
67.5°	206.8	168.1	139.6	134.4	131.9
70°	160.3	134.4	120.2	117.6	115.1
72.5°	118.9	108.6	102.1	100.8	99.5
75°	82.7	86.6	84.0	84.0	84.0
77.5°	65.9	67.2	68.5	69.8	68.5
80°	47.8	51.7	53.0	55.6	54.3
82.5°	33.6	36.2	40.1	41.4	42.7
85°	20.7	22.0	25.9	28.4	28.4
87.5°	9.0	10.3	12.9	15.5	16.8
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	18.25	19.75	18.62	20.06	20.38	14.82	16.31	15.18	16.63	16.94
	3H	19.46	20.80	19.83	21.13	21.49	16.51	17.85	16.89	18.18	18.54
	4H	19.76	21.02	20.16	21.37	21.75	17.19	18.45	17.59	18.80	19.18
	6H	19.96	21.13	20.38	21.50	21.89	17.74	18.90	18.15	19.27	19.66
	8H	20.02	21.13	20.45	21.52	21.92	17.95	19.06	18.38	19.45	19.85
	12H	20.06	21.12	20.49	21.50	21.93	18.13	19.19	18.56	19.57	20.00
4H	2H	18.39	19.65	18.79	20.00	20.38	15.48	16.73	15.88	17.08	17.46
	3H	19.79	20.84	20.21	21.24	21.64	17.39	18.43	17.80	18.83	19.23
	4H	20.22	21.16	20.65	21.58	22.02	18.19	19.13	18.62	19.54	19.98
	6H	20.55	21.36	21.00	21.81	22.27	18.87	19.69	19.33	20.14	20.60
	8H	20.64	21.41	21.11	21.85	22.32	19.15	19.91	19.61	20.36	20.82
	12H	20.71	21.40	21.20	21.87	22.35	19.38	20.06	19.86	20.54	21.01
8H	4H	20.35	21.11	20.81	21.56	22.02	18.50	19.27	18.97	19.71	20.18
	6H	20.77	21.40	21.27	21.89	22.37	19.33	19.96	19.83	20.46	20.93
	8H	20.93	21.49	21.44	22.00	22.49	19.70	20.27	20.21	20.78	21.26
	12H	21.05	21.56	21.56	22.05	22.61	20.03	20.53	20.54	21.03	21.59
12H	4H	20.35	21.04	20.84	21.52	21.99	18.53	19.21	19.01	19.69	20.16
	6H	20.79	21.36	21.31	21.87	22.36	19.39	19.96	19.91	20.47	20.96
	8H	21.00	21.50	21.51	22.00	22.56	19.82	20.33	20.33	20.82	21.38