

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1060252

Luminaire Tested: S124RDRP-S1020D850-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060252
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: S124RDRP-S1020D850-X4F0-XX-UDD-WVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

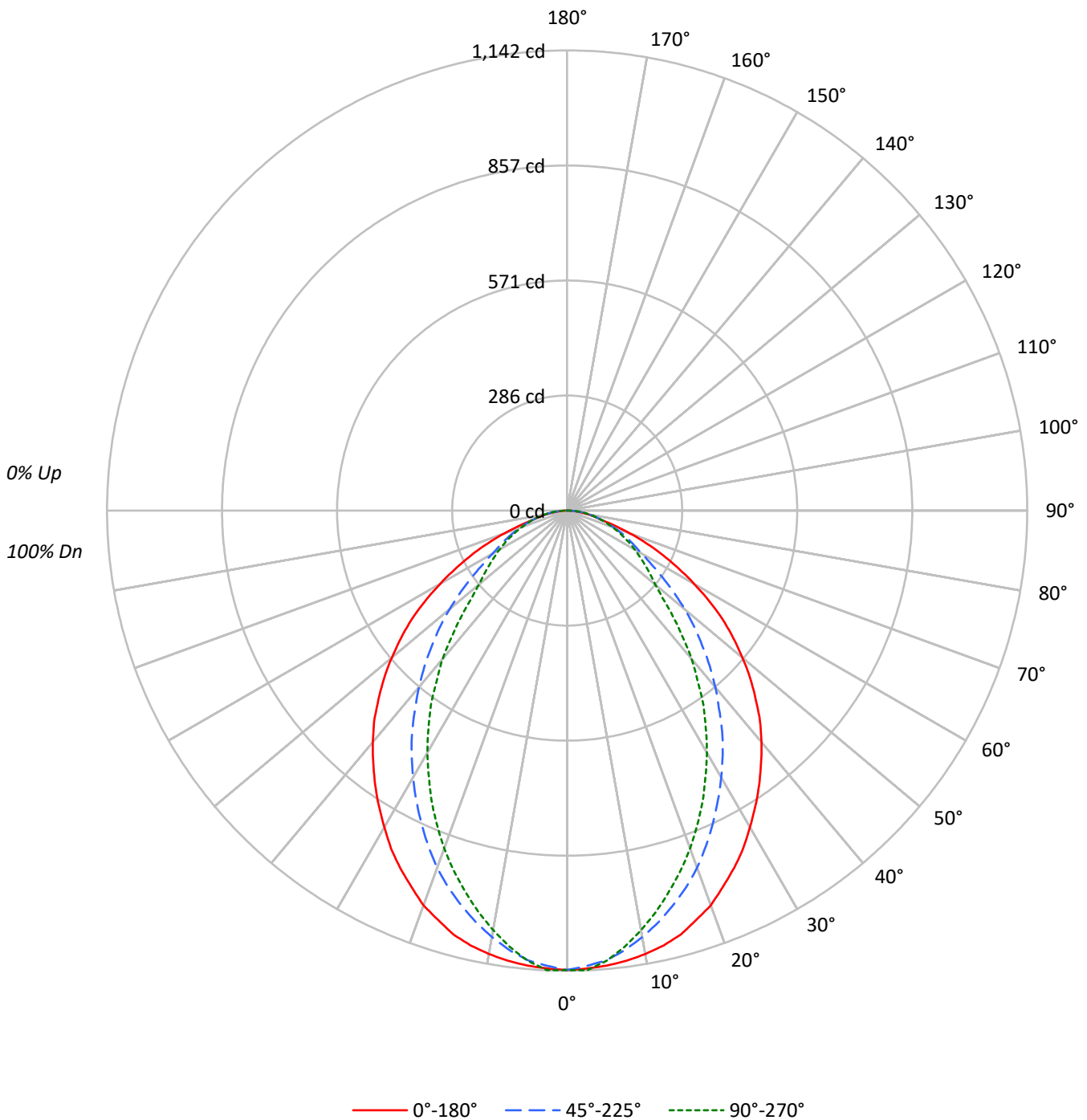
Lumens per Lamp: N/A
Luminaire Lumens: 2198.6 lumens
Efficiency: N/A
Efficacy: 62.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): 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	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°	9818	9818	9818
5°	9798	9682	9694
10°	9771	9396	9243
15°	9711	9042	8720
20°	9552	8644	8177
25°	9306	8135	7562
30°	9020	7608	6901
35°	8733	7057	6197
40°	8434	6431	5407
45°	8061	5776	4519
50°	7611	5097	3823
55°	7080	4325	3540
60°	6276	3668	3346
65°	5351	3384	3166
70°	4182	3137	3001
75°	2855	2898	2898
80°	2460	2722	2792
85°	2114	2648	2915

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8061 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.1	4.8
10°-20°	288.1	13.1
20°-30°	400.0	18.2
30°-40°	428.7	19.5
40°-50°	379.8	17.3
50°-60°	286.2	13.0
60°-70°	185.3	8.4
70°-80°	95.1	4.3
80°-90°	29.2	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°	794.1	36.1
0°-40°	1222.9	55.6
0°-60°	1888.9	85.9
0°-90°	2198.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2198.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1140	1140	1140	1140	1140	
5°	1134	1135	1120	1122	1122	108
15°	1089	1065	1014	989	978	306
25°	979	927	856	811	796	451
35°	831	756	671	611	590	519
45°	662	576	474	401	371	510
55°	472	393	288	242	236	419
65°	263	212	166	157	155	260
75°	86	90	87	87	87	101
85°	21	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°	1140.2	1140.2	1140.2	1140.2	1140.2
2.5°	1137.5	1141.6	1130.8	1138.9	1141.6
5°	1133.5	1134.9	1120.1	1121.5	1121.5
7.5°	1126.8	1124.1	1100.0	1093.3	1092.0
10°	1117.4	1109.4	1074.6	1061.2	1057.1
12.5°	1105.4	1090.6	1046.4	1027.7	1019.6
15°	1089.3	1065.2	1014.3	988.8	978.1
17.5°	1065.2	1034.4	980.8	948.6	936.6
20°	1042.4	1000.9	943.3	903.1	892.3
22.5°	1010.2	966.0	900.4	857.5	844.1
25°	979.4	927.2	856.2	810.6	795.9
27.5°	945.9	887.0	810.6	762.4	743.6
30°	907.1	844.1	765.1	714.1	694.0
32.5°	869.6	802.6	718.2	661.9	640.4
35°	830.7	755.7	671.3	611.0	589.5
37.5°	790.5	711.5	619.0	560.1	531.9
40°	750.3	667.2	572.1	505.1	481.0
42.5°	708.8	621.7	523.9	454.2	423.4
45°	661.9	576.1	474.3	400.6	371.1
47.5°	616.3	531.9	428.8	348.4	321.6
50°	568.1	485.0	380.5	302.8	285.4
52.5°	519.9	436.8	333.6	268.0	259.9
55°	471.6	392.6	288.1	242.5	235.8
57.5°	418.0	347.0	247.9	219.7	214.4
60°	364.4	297.4	213.0	198.3	194.3
62.5°	312.2	254.6	188.9	176.9	174.2
65°	262.6	211.7	166.1	156.8	155.4
67.5°	214.4	174.2	144.7	139.3	136.7
70°	166.1	139.3	124.6	121.9	119.2
72.5°	123.3	112.5	105.8	104.5	103.2
75°	85.8	89.8	87.1	87.1	87.1
77.5°	68.3	69.7	71.0	72.4	71.0
80°	49.6	53.6	54.9	57.6	56.3
82.5°	34.8	37.5	41.5	42.9	44.2
85°	21.4	22.8	26.8	29.5	29.5
87.5°	9.4	10.7	13.4	16.1	17.4
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	18.38	19.87	18.74	20.19	20.50	14.94	16.44	15.30	16.75	17.07
	3H	19.58	20.92	19.96	21.25	21.61	16.63	17.98	17.01	18.31	18.67
	4H	19.89	21.15	20.29	21.50	21.87	17.31	18.57	17.71	18.92	19.30
	6H	20.09	21.25	20.50	21.62	22.01	17.86	19.02	18.27	19.39	19.78
	8H	20.15	21.25	20.57	21.64	22.05	18.08	19.19	18.51	19.58	19.98
	12H	20.18	21.24	20.61	21.62	22.05	18.25	19.31	18.68	19.69	20.12
4H	2H	18.52	19.78	18.92	20.13	20.50	15.60	16.86	16.00	17.21	17.59
	3H	19.92	20.96	20.33	21.36	21.77	17.51	18.55	17.92	18.95	19.36
	4H	20.35	21.29	20.78	21.70	22.14	18.31	19.25	18.74	19.67	20.11
	6H	20.67	21.49	21.13	21.93	22.39	19.00	19.82	19.46	20.26	20.72
	8H	20.77	21.53	21.23	21.98	22.44	19.27	20.04	19.74	20.48	20.95
	12H	20.84	21.52	21.32	22.00	22.47	19.50	20.19	19.99	20.66	21.14
8H	4H	20.47	21.24	20.94	21.68	22.15	18.63	19.39	19.09	19.84	20.30
	6H	20.89	21.53	21.39	22.02	22.50	19.46	20.09	19.95	20.58	21.06
	8H	21.05	21.62	21.57	22.13	22.62	19.82	20.39	20.34	20.90	21.39
	12H	21.18	21.68	21.69	22.17	22.74	20.16	20.66	20.67	21.15	21.72
12H	4H	20.48	21.16	20.96	21.64	22.11	18.66	19.34	19.14	19.82	20.29
	6H	20.92	21.49	21.43	22.00	22.49	19.52	20.09	20.03	20.60	21.08
	8H	21.13	21.63	21.64	22.12	22.69	19.95	20.45	20.46	20.94	21.51