

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: P1060675

Luminaire Tested: S124RDR-H1020D930-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060675
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-H1020D930-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, 90 CRI LEDS
Ballast/Driver: -

Summary

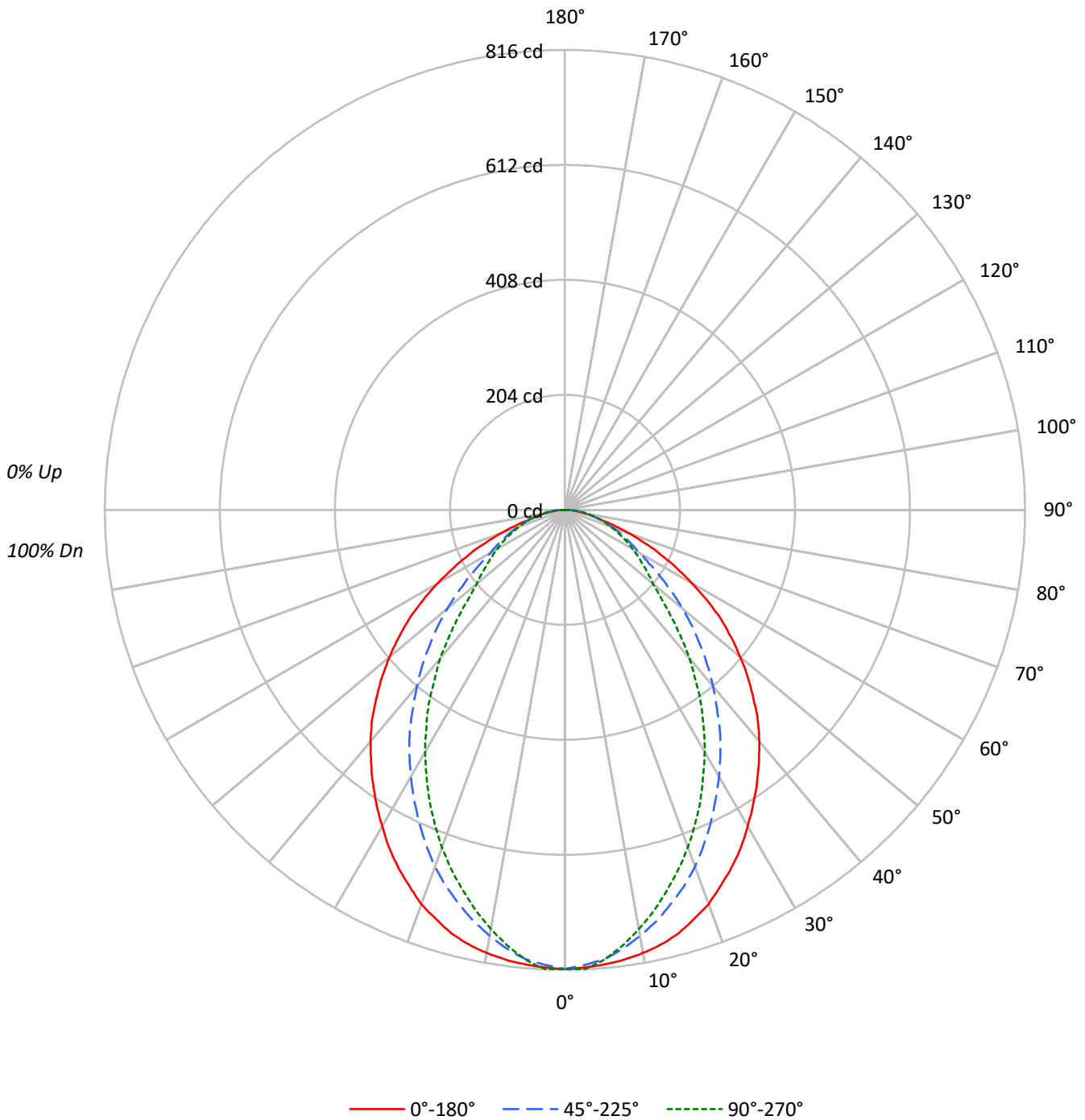
Lumens per Lamp: N/A
Luminaire Lumens: 1570.8 lumens
Efficiency: N/A
Efficacy: 50.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
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

TEST NUMBER: P1060675

CATALOG NUMBER: S124RDR-H1020D930-X4F0-XX-UDD-WVL-B

Luminous Intensity Polar Plot





TEST NUMBER: P1060675

CATALOG NUMBER: S124RDR-H1020D930-X4F0-XX-UDD-WVL-B

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°	7015	7015	7015
5°	7000	6918	6926
10°	6980	6713	6604
15°	6938	6460	6230
20°	6824	6175	5842
25°	6648	5812	5402
30°	6444	5435	4931
35°	6239	5042	4428
40°	6026	4594	3864
45°	5759	4127	3230
50°	5438	3643	2732
55°	5059	3090	2530
60°	4485	2621	2390
65°	3822	2419	2262
70°	2989	2241	2145
75°	2040	2069	2069
80°	1755	1944	1993
85°	1512	1887	2085

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5759 cd/sqm



TEST NUMBER: P1060675

CATALOG NUMBER: S124RDR-H1020D930-X4F0-XX-UDD-WVL-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.8	4.8
10°-20°	205.8	13.1
20°-30°	285.8	18.2
30°-40°	306.3	19.5
40°-50°	271.4	17.3
50°-60°	204.5	13.0
60°-70°	132.4	8.4
70°-80°	67.9	4.3
80°-90°	20.9	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°	567.4	36.1
0°-40°	873.7	55.6
0°-60°	1349.5	85.9
0°-90°	1570.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1570.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	815	815	815	815	815	
5°	810	811	800	801	801	77
15°	778	761	725	706	699	219
25°	700	662	612	579	569	322
35°	594	540	480	436	421	371
45°	473	412	339	286	265	365
55°	337	280	206	173	168	299
65°	188	151	119	112	111	186
75°	61	64	62	62	62	72
85°	15	16	19	21	21	18
90°	0	0	0	0	0	



TEST NUMBER: P1060675

CATALOG NUMBER: S124RDR-H1020D930-X4F0-XX-UDD-WVL-B

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	814.6	814.6	814.6	814.6	814.6
2.5°	812.7	815.6	807.9	813.7	815.6
5°	809.8	810.8	800.3	801.2	801.2
7.5°	805.0	803.1	785.9	781.1	780.2
10°	798.3	792.6	767.7	758.1	755.3
12.5°	789.7	779.2	747.6	734.2	728.5
15°	778.2	761.0	724.6	706.4	698.8
17.5°	761.0	739.0	700.7	677.7	669.1
20°	744.7	715.1	673.9	645.2	637.5
22.5°	721.8	690.2	643.3	612.6	603.1
25°	699.7	662.4	611.7	579.1	568.6
27.5°	675.8	633.7	579.1	544.7	531.3
30°	648.1	603.1	546.6	510.2	495.9
32.5°	621.3	573.4	513.1	472.9	457.6
35°	593.5	539.9	479.6	436.5	421.2
37.5°	564.8	508.3	442.2	400.1	380.0
40°	536.1	476.7	408.7	360.9	343.7
42.5°	506.4	444.2	374.3	324.5	302.5
45°	472.9	411.6	338.9	286.2	265.2
47.5°	440.3	380.0	306.3	248.9	229.7
50°	405.9	346.5	271.9	216.3	203.9
52.5°	371.4	312.1	238.4	191.4	185.7
55°	337.0	280.5	205.8	173.3	168.5
57.5°	298.7	247.9	177.1	157.0	153.2
60°	260.4	212.5	152.2	141.7	138.8
62.5°	223.0	181.9	135.0	126.4	124.4
65°	187.6	151.2	118.7	112.0	111.0
67.5°	153.2	124.4	103.4	99.6	97.6
70°	118.7	99.6	89.0	87.1	85.2
72.5°	88.1	80.4	75.6	74.7	73.7
75°	61.3	64.1	62.2	62.2	62.2
77.5°	48.8	49.8	50.7	51.7	50.7
80°	35.4	38.3	39.2	41.2	40.2
82.5°	24.9	26.8	29.7	30.6	31.6
85°	15.3	16.3	19.1	21.1	21.1
87.5°	6.7	7.7	9.6	11.5	12.4
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1060675
 CATALOG NUMBER: S124RDR-H1020D930-X4F0-XX-UDD-WVL-B

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	17.21	18.71	17.57	19.02	19.33	13.77	15.27	14.14	15.58	15.90
	3H	18.41	19.76	18.79	20.08	20.45	15.47	16.81	15.85	17.14	17.50
	4H	18.72	19.98	19.12	20.33	20.71	16.15	17.40	16.55	17.75	18.13
	6H	18.92	20.08	19.33	20.45	20.84	16.69	17.86	17.11	18.22	18.62
	8H	18.98	20.09	19.41	20.48	20.88	16.91	18.02	17.34	18.41	18.81
	12H	19.01	20.07	19.44	20.45	20.88	17.08	18.14	17.52	18.53	18.96
4H	2H	17.35	18.61	17.75	18.96	19.34	14.43	15.69	14.83	16.04	16.42
	3H	18.75	19.80	19.16	20.20	20.60	16.34	17.39	16.75	17.79	18.19
	4H	19.18	20.12	19.61	20.53	20.97	17.14	18.08	17.58	18.50	18.94
	6H	19.50	20.32	19.96	20.76	21.22	17.83	18.65	18.29	19.09	19.55
	8H	19.60	20.36	20.06	20.81	21.28	18.10	18.87	18.57	19.31	19.78
	12H	19.67	20.35	20.15	20.83	21.30	18.34	19.02	18.82	19.50	19.97
8H	4H	19.30	20.07	19.77	20.51	20.98	17.46	18.22	17.92	18.67	19.14
	6H	19.73	20.36	20.22	20.85	21.33	18.29	18.92	18.79	19.41	19.89
	8H	19.88	20.45	20.40	20.96	21.45	18.65	19.22	19.17	19.73	20.22
	12H	20.01	20.51	20.52	21.01	21.57	18.99	19.49	19.50	19.98	20.55
12H	4H	19.31	19.99	19.79	20.47	20.94	17.49	18.17	17.97	18.65	19.12
	6H	19.75	20.32	20.26	20.83	21.32	18.35	18.92	18.86	19.43	19.92
	8H	19.96	20.46	20.47	20.95	21.52	18.78	19.28	19.29	19.77	20.34