

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: P1060288

Luminaire Tested: S124RDRP-S1020D940-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060288
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-S1020D940-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: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

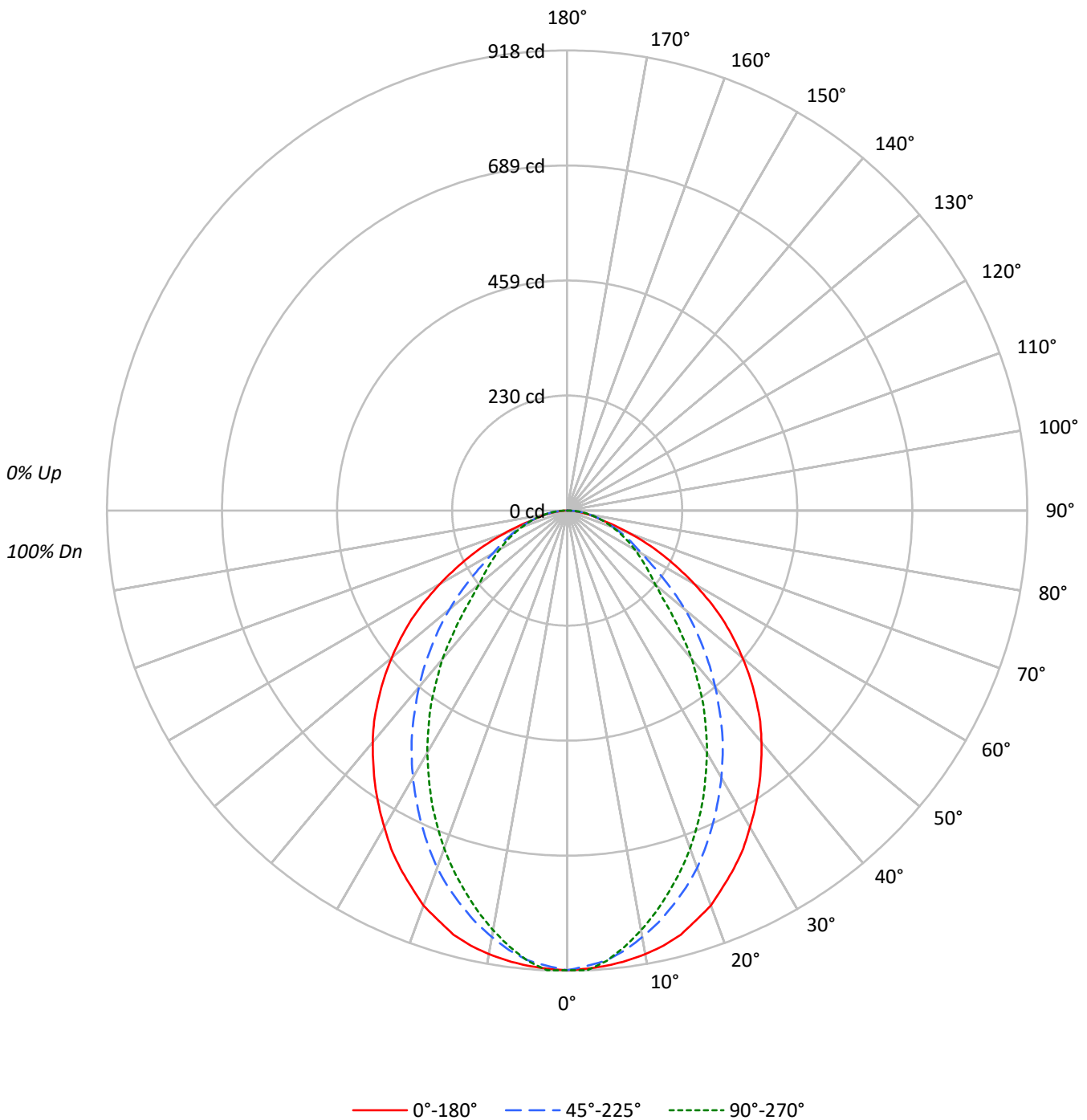
Lumens per Lamp: N/A
Luminaire Lumens: 1767.8 lumens
Efficiency: N/A
Efficacy: 50.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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				
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°	7895	7895	7895
5°	7878	7785	7794
10°	7856	7555	7432
15°	7809	7270	7011
20°	7681	6950	6575
25°	7482	6541	6080
30°	7253	6117	5549
35°	7021	5673	4983
40°	6782	5171	4348
45°	6481	4645	3634
50°	6120	4099	3075
55°	5693	3477	2846
60°	5046	2950	2690
65°	4303	2722	2547
70°	3364	2523	2414
75°	2292	2329	2329
80°	1979	2192	2241
85°	1699	2124	2342

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6481 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.3	4.8
10°-20°	231.6	13.1
20°-30°	321.6	18.2
30°-40°	344.7	19.5
40°-50°	305.4	17.3
50°-60°	230.2	13.0
60°-70°	149.0	8.4
70°-80°	76.5	4.3
80°-90°	23.5	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°	638.5	36.1
0°-40°	983.3	55.6
0°-60°	1518.8	85.9
0°-90°	1767.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1767.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	917	917	917	917	917	
5°	911	912	901	902	902	87
15°	876	856	816	795	786	246
25°	788	746	688	652	640	362
35°	668	608	540	491	474	418
45°	532	463	381	322	298	410
55°	379	316	232	195	190	337
65°	211	170	134	126	125	209
75°	69	72	70	70	70	82
85°	17	18	22	24	24	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	916.8	916.8	916.8	916.8	916.8
2.5°	914.7	917.9	909.3	915.7	917.9
5°	911.4	912.5	900.6	901.7	901.7
7.5°	906.0	903.9	884.5	879.1	878.0
10°	898.5	892.0	864.0	853.2	850.0
12.5°	888.8	876.9	841.4	826.3	819.8
15°	875.9	856.5	815.5	795.1	786.4
17.5°	856.5	831.7	788.6	762.7	753.1
20°	838.2	804.8	758.4	726.1	717.5
22.5°	812.3	776.8	724.0	689.5	678.7
25°	787.5	745.5	688.4	651.8	639.9
27.5°	760.6	713.2	651.8	613.0	597.9
30°	729.4	678.7	615.2	574.2	558.1
32.5°	699.2	645.3	577.4	532.2	515.0
35°	667.9	607.6	539.7	491.3	474.0
37.5°	635.6	572.1	497.7	450.3	427.7
40°	603.3	536.5	460.0	406.2	386.8
42.5°	569.9	499.9	421.2	365.2	340.4
45°	532.2	463.3	381.4	322.1	298.4
47.5°	495.6	427.7	344.7	280.1	258.6
50°	456.8	390.0	306.0	243.5	229.5
52.5°	418.0	351.2	268.3	215.5	209.0
55°	379.2	315.7	231.6	195.0	189.6
57.5°	336.1	279.0	199.3	176.7	172.4
60°	293.0	239.2	171.3	159.4	156.2
62.5°	251.0	204.7	151.9	142.2	140.1
65°	211.2	170.2	133.6	126.0	125.0
67.5°	172.4	140.1	116.4	112.0	109.9
70°	133.6	112.0	100.2	98.0	95.9
72.5°	99.1	90.5	85.1	84.0	83.0
75°	68.9	72.2	70.0	70.0	70.0
77.5°	54.9	56.0	57.1	58.2	57.1
80°	39.9	43.1	44.2	46.3	45.2
82.5°	28.0	30.2	33.4	34.5	35.6
85°	17.2	18.3	21.5	23.7	23.7
87.5°	7.5	8.6	10.8	12.9	14.0
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	17.62	19.12	17.98	19.43	19.74	14.18	15.68	14.55	15.99	16.31
	3H	18.82	20.17	19.20	20.49	20.86	15.88	17.22	16.26	17.55	17.91
	4H	19.13	20.39	19.53	20.74	21.12	16.56	17.82	16.96	18.16	18.54
	6H	19.33	20.50	19.74	20.86	21.25	17.10	18.27	17.52	18.63	19.03
	8H	19.39	20.50	19.82	20.89	21.29	17.32	18.43	17.75	18.82	19.22
	12H	19.42	20.48	19.85	20.86	21.29	17.50	18.55	17.93	18.94	19.37
4H	2H	17.76	19.02	18.16	19.37	19.75	14.84	16.10	15.24	16.45	16.83
	3H	19.16	20.21	19.57	20.61	21.01	16.75	17.80	17.16	18.20	18.60
	4H	19.59	20.53	20.02	20.94	21.38	17.55	18.49	17.99	18.91	19.35
	6H	19.91	20.73	20.37	21.17	21.63	18.24	19.06	18.70	19.50	19.96
	8H	20.01	20.77	20.47	21.22	21.69	18.52	19.28	18.98	19.72	20.19
	12H	20.08	20.76	20.56	21.24	21.71	18.75	19.43	19.23	19.91	20.38
8H	4H	19.71	20.48	20.18	20.92	21.39	17.87	18.63	18.33	19.08	19.55
	6H	20.14	20.77	20.63	21.26	21.74	18.70	19.33	19.20	19.82	20.30
	8H	20.29	20.86	20.81	21.37	21.86	19.06	19.63	19.58	20.14	20.63
	12H	20.42	20.92	20.93	21.42	21.98	19.40	19.90	19.91	20.39	20.96
12H	4H	19.72	20.40	20.20	20.88	21.35	17.90	18.58	18.38	19.06	19.53
	6H	20.16	20.73	20.68	21.24	21.73	18.76	19.33	19.27	19.84	20.33
	8H	20.37	20.87	20.88	21.36	21.93	19.19	19.69	19.70	20.19	20.75