

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: P1060935

Luminaire Tested: S124RDR-H575D940-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060935
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-74)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H575D940-X4F0-XX-UDD-SVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

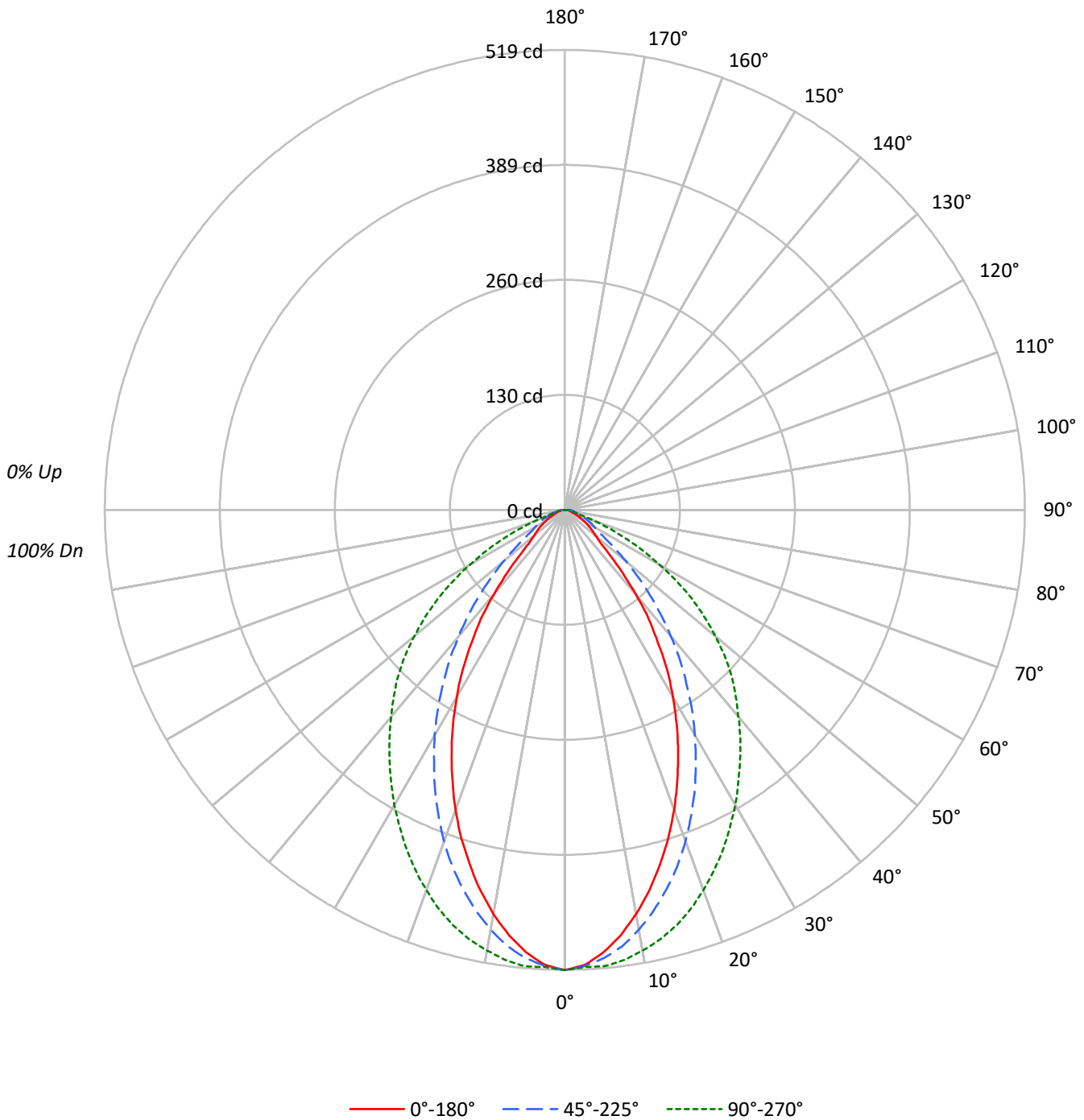
Lumens per Lamp: N/A
Luminaire Lumens: 735.1 lumens
Efficiency: N/A
Efficacy: 42.2 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
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	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79				79
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70				70
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63				63
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57				57
6	79	67	60	54	77	67	59	54	65	59	54	63	58	53	62	57	53	51				51
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47				47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43				43
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39				39
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36				36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4473	4473	4473
5°	4334	4389	4469
10°	4049	4207	4415
15°	3693	3952	4330
20°	3303	3648	4185
25°	2872	3297	4014
30°	2423	2919	3825
35°	1928	2513	3624
40°	1403	2094	3425
45°	848	1654	3244
50°	607	1198	2970
55°	513	811	2623
60°	420	660	2118
65°	330	591	1526
70°	277	496	803
75°	250	462	406
80°	258	461	402
85°	346	692	454

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3244 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.8	6.5
10°-20°	125.3	17.0
20°-30°	162.5	22.1
30°-40°	156.4	21.3
40°-50°	116.4	15.8
50°-60°	71.6	9.7
60°-70°	35.1	4.8
70°-80°	13.7	1.9
80°-90°	6.3	0.9
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°	335.6	45.7
0°-40°	492.1	66.9
0°-60°	680.0	92.5
0°-90°	735.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	735.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	519	519	519	519	519	
5°	501	509	508	512	517	47
15°	414	428	443	470	486	116
25°	302	319	347	390	422	138
35°	183	201	239	299	345	115
45°	70	86	136	210	266	58
55°	34	35	54	123	175	31
65°	16	17	29	46	75	17
75°	8	13	14	13	12	8
85°	4	6	7	7	5	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	519.4	519.4	519.4	519.4	519.4
2.5°	514.1	519.9	515.3	515.9	516.5
5°	501.4	508.9	507.8	512.4	517.0
7.5°	484.0	492.7	496.7	506.0	512.4
10°	463.1	472.9	481.1	496.2	504.9
12.5°	439.9	451.5	463.1	483.4	496.7
15°	414.3	427.7	443.3	470.0	485.7
17.5°	388.2	401.6	421.9	452.6	472.4
20°	360.4	374.9	398.1	432.3	456.7
22.5°	331.3	347.0	372.6	411.4	440.4
25°	302.3	318.6	347.0	390.5	422.5
27.5°	273.3	289.0	319.7	368.5	403.3
30°	243.7	260.0	293.6	344.7	384.7
32.5°	215.3	230.4	266.4	322.1	364.4
35°	183.4	200.8	239.1	298.9	344.7
37.5°	156.1	171.8	213.0	275.6	325.0
40°	124.8	142.2	186.3	253.0	304.7
42.5°	95.7	113.2	160.7	230.4	285.5
45°	69.6	86.5	135.8	209.5	266.4
47.5°	52.8	62.7	111.4	189.2	244.9
50°	45.3	48.2	89.4	167.1	221.7
52.5°	40.0	41.2	69.6	145.1	198.5
55°	34.2	35.4	54.0	123.0	174.7
57.5°	29.0	29.6	43.5	102.1	149.1
60°	24.4	25.0	38.3	81.8	123.0
62.5°	20.3	20.9	34.2	63.3	98.1
65°	16.2	17.4	29.0	46.4	74.9
67.5°	13.3	15.7	24.4	32.5	52.2
70°	11.0	15.1	19.7	22.6	31.9
72.5°	9.3	13.9	16.8	16.2	15.7
75°	7.5	13.3	13.9	12.8	12.2
77.5°	6.4	11.6	11.6	10.4	9.9
80°	5.2	9.3	9.3	9.3	8.1
82.5°	4.6	7.5	8.1	8.1	6.4
85°	3.5	6.4	7.0	7.0	4.6
87.5°	2.3	5.8	6.4	5.8	3.5
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	4.99	6.33	5.35	6.64	6.96	14.15	15.50	14.52	15.81	16.12
	3H	6.10	7.29	6.48	7.62	7.98	14.66	15.85	15.04	16.18	16.55
	4H	6.61	7.72	7.02	8.07	8.46	14.68	15.79	15.08	16.14	16.53
	6H	7.05	8.07	7.46	8.44	8.83	14.69	15.71	15.11	16.08	16.48
	8H	7.24	8.20	7.67	8.59	9.00	14.70	15.66	15.13	16.05	16.46
	12H	7.42	8.34	7.85	8.72	9.15	14.70	15.62	15.13	16.01	16.44
4H	2H	6.13	7.24	6.54	7.59	7.98	14.05	15.16	14.45	15.51	15.89
	3H	7.47	8.38	7.89	8.79	9.19	14.64	15.54	15.05	15.95	16.35
	4H	8.20	9.02	8.64	9.43	9.88	14.69	15.51	15.13	15.93	16.37
	6H	8.81	9.52	9.28	9.96	10.43	14.77	15.47	15.23	15.92	16.38
	8H	9.05	9.71	9.52	10.16	10.63	14.80	15.46	15.27	15.90	16.37
	12H	9.29	9.87	9.78	10.35	10.83	14.84	15.42	15.33	15.90	16.38
8H	4H	8.67	9.33	9.14	9.77	10.24	14.65	15.31	15.12	15.76	16.23
	6H	9.52	10.06	10.02	10.55	11.04	14.78	15.32	15.28	15.81	16.29
	8H	9.92	10.41	10.44	10.92	11.41	14.86	15.35	15.38	15.86	16.35
	12H	10.35	10.78	10.86	11.27	11.84	14.98	15.41	15.50	15.91	16.48
12H	4H	8.72	9.30	9.21	9.79	10.26	14.63	15.21	15.11	15.69	16.16
	6H	9.65	10.14	10.17	10.65	11.14	14.76	15.25	15.28	15.76	16.25
	8H	10.17	10.60	10.69	11.09	11.66	14.90	15.32	15.41	15.82	16.39