

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: P1061019

Luminaire Tested: S124RDR-H795D940-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1061019
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-73)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H795D940-X4F0-XX-UDD-WVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

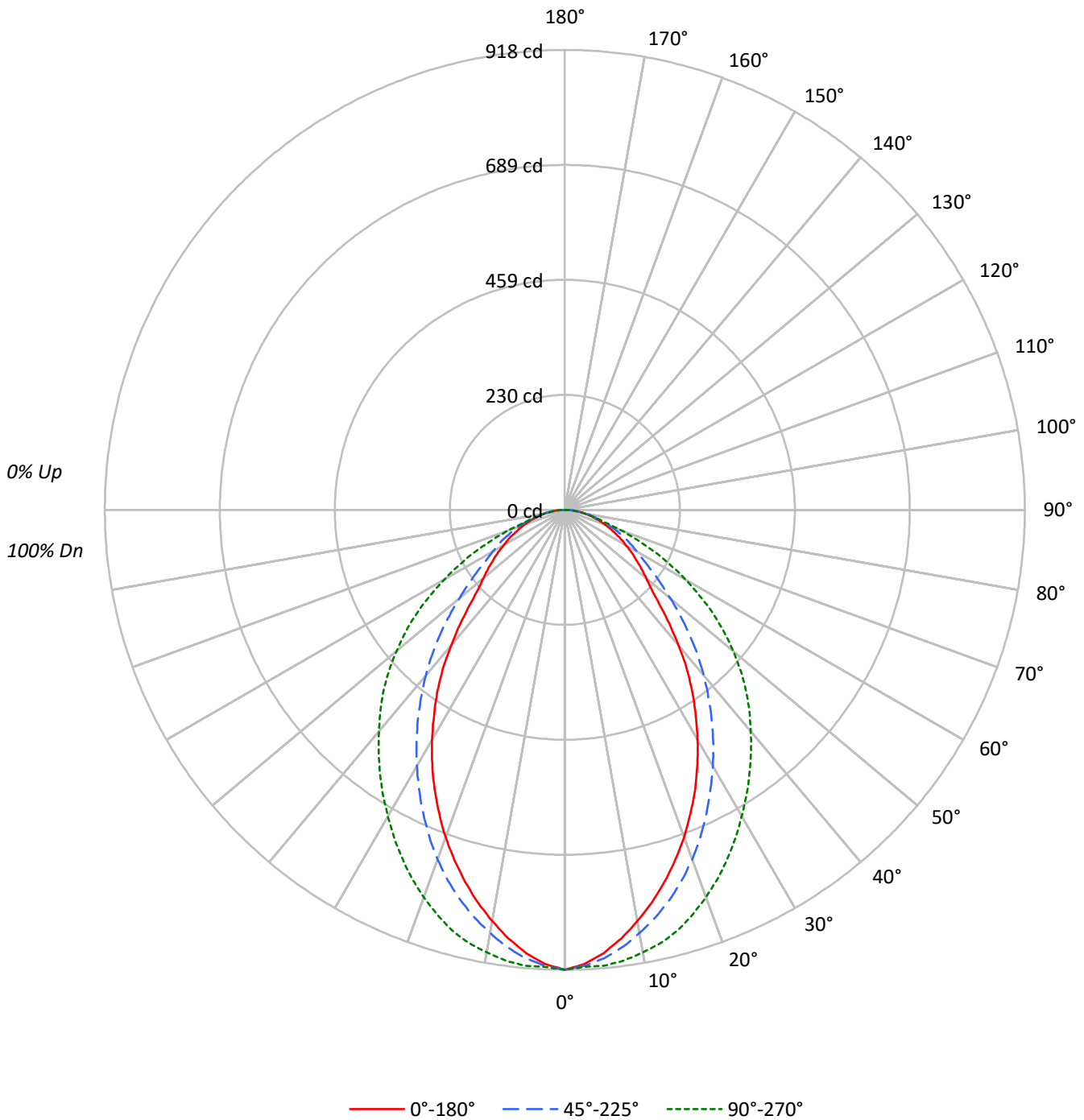
Lumens per Lamp: N/A
Luminaire Lumens: 1684.5 lumens
Efficiency: N/A
Efficacy: 71.7 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.5
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										
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	108	104	100	97	100	97	94	96	93	91	92	90	89	87					87															
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75					75															
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65					65															
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	57					57															
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	50					50															
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45					45															
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40					40															
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37					37															
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33					33															
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31					31															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7905	7905	7905
5°	7675	7767	7893
10°	7288	7501	7842
15°	6851	7185	7750
20°	6372	6804	7541
25°	5843	6353	7294
30°	5267	5873	7020
35°	4663	5372	6755
40°	3964	4849	6484
45°	3245	4284	6233
50°	2840	3679	5866
55°	2611	3171	5427
60°	2420	2854	4784
65°	2268	2681	4006
70°	2127	2455	3006
75°	2000	2242	2189
80°	1855	2053	1855
85°	1690	2006	1601

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6233 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.8	5.0
10°-20°	228.3	13.6
20°-30°	312.0	18.5
30°-40°	327.9	19.5
40°-50°	284.6	16.9
50°-60°	214.7	12.7
60°-70°	139.1	8.3
70°-80°	71.4	4.2
80°-90°	21.6	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°	625.1	37.1
0°-40°	953.0	56.6
0°-60°	1452.3	86.2
0°-90°	1684.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1684.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	918	918	918	918	918	
5°	888	900	898	906	913	83
15°	768	787	806	842	869	215
25°	615	637	669	720	768	282
35°	444	468	511	579	643	276
45°	266	292	352	440	512	210
55°	174	179	211	300	362	156
65°	111	114	132	159	197	111
75°	60	67	67	68	66	64
85°	17	21	20	20	16	19
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	918.0	918.0	918.0	918.0	918.0
2.5°	907.4	918.8	910.7	912.3	913.1
5°	887.9	900.1	898.5	905.8	913.1
7.5°	862.8	877.4	880.6	895.2	907.4
10°	833.5	849.8	857.9	881.4	896.9
12.5°	802.6	818.9	833.5	863.6	885.5
15°	768.5	787.2	805.9	842.4	869.3
17.5°	732.8	752.3	775.8	815.6	847.3
20°	695.4	714.9	742.5	785.6	822.9
22.5°	655.6	677.5	706.8	753.1	796.9
25°	615.0	636.9	668.6	719.8	767.7
27.5°	572.7	595.5	629.6	686.5	737.6
30°	529.7	554.0	590.6	650.7	706.0
32.5°	485.8	511.8	550.8	615.0	675.1
35°	443.6	467.9	511.0	579.2	642.6
37.5°	399.7	424.1	470.4	544.3	610.1
40°	352.6	379.4	431.4	507.7	576.8
42.5°	308.7	335.5	391.6	472.8	545.1
45°	266.5	291.6	351.8	439.5	511.8
47.5°	234.0	251.8	312.0	407.0	476.1
50°	212.0	220.2	274.6	371.3	437.9
52.5°	192.5	199.0	240.5	335.5	400.5
55°	173.9	178.7	211.2	299.8	361.5
57.5°	157.6	160.0	185.2	264.0	319.3
60°	140.5	143.8	165.7	227.5	277.8
62.5°	126.7	128.4	148.7	192.5	236.4
65°	111.3	113.7	131.6	159.2	196.6
67.5°	97.5	101.5	113.7	130.0	155.2
70°	84.5	90.2	97.5	105.6	119.4
72.5°	72.3	78.8	82.9	86.1	83.7
75°	60.1	67.4	67.4	68.2	65.8
77.5°	48.7	55.2	54.4	53.6	50.4
80°	37.4	43.1	41.4	40.6	37.4
82.5°	27.6	31.7	30.1	29.2	25.2
85°	17.1	21.1	20.3	19.5	16.2
87.5°	8.1	12.2	11.4	10.6	7.3
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	13.68	15.17	14.05	15.48	15.80	17.42	18.91	17.79	19.22	19.54
	3H	15.35	16.69	15.73	17.01	17.38	18.55	19.88	18.93	20.21	20.57
	4H	16.02	17.27	16.42	17.62	18.00	18.85	20.09	19.25	20.44	20.82
	6H	16.53	17.68	16.94	18.05	18.44	19.05	20.20	19.46	20.57	20.96
	8H	16.70	17.80	17.13	18.19	18.59	19.10	20.20	19.53	20.59	20.99
	12H	16.82	17.87	17.25	18.25	18.68	19.13	20.18	19.56	20.57	21.00
4H	2H	14.48	15.73	14.88	16.08	16.45	17.59	18.84	17.99	19.19	19.57
	3H	16.35	17.38	16.76	17.79	18.19	18.92	19.96	19.33	20.36	20.76
	4H	17.15	18.09	17.59	18.50	18.94	19.34	20.27	19.77	20.68	21.12
	6H	17.80	18.61	18.25	19.05	19.51	19.66	20.47	20.12	20.91	21.37
	8H	18.02	18.78	18.48	19.22	19.69	19.75	20.51	20.22	20.95	21.42
	12H	18.19	18.86	18.67	19.34	19.81	19.82	20.50	20.31	20.98	21.45
8H	4H	17.50	18.26	17.97	18.70	19.17	19.47	20.23	19.93	20.67	21.14
	6H	18.29	18.92	18.79	19.41	19.89	19.89	20.51	20.39	21.01	21.48
	8H	18.61	19.17	19.12	19.68	20.17	20.05	20.61	20.56	21.12	21.61
	12H	18.87	19.37	19.38	19.86	20.43	20.18	20.68	20.69	21.17	21.74
12H	4H	17.53	18.21	18.01	18.69	19.16	19.47	20.15	19.96	20.63	21.10
	6H	18.35	18.91	18.87	19.43	19.91	19.91	20.47	20.43	20.98	21.47
	8H	18.74	19.23	19.25	19.73	20.29	20.12	20.62	20.63	21.11	21.67