

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: P1060963

Luminaire Tested: S124RDR-H795D835-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060963
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-H795D835-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

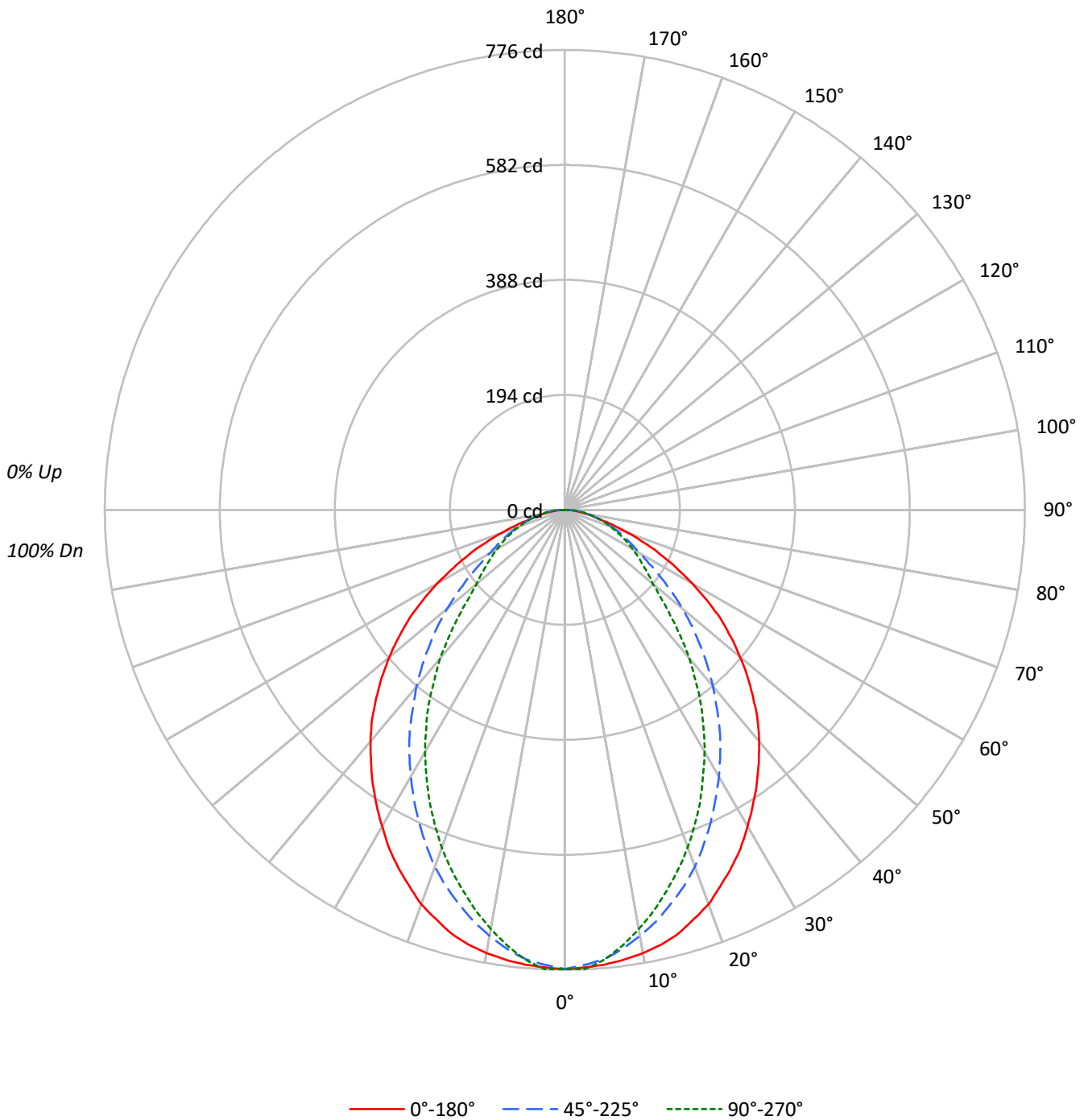
Lumens per Lamp: N/A
Luminaire Lumens: 1493.9 lumens
Efficiency: N/A
Efficacy: 63.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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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CATALOG NUMBER: S124RDR-H795D835-X4F0-XX-UDD-WVL-B

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									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	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°	6672	6672	6672
5°	6658	6579	6587
10°	6639	6385	6281
15°	6599	6144	5925
20°	6491	5873	5556
25°	6323	5528	5138
30°	6129	5169	4689
35°	5934	4795	4211
40°	5731	4369	3674
45°	5476	3925	3071
50°	5171	3464	2598
55°	4812	2938	2405
60°	4264	2494	2273
65°	3635	2300	2152
70°	2843	2133	2039
75°	1940	1970	1970
80°	1671	1850	1894
85°	1443	1798	1976

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5476 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.1	4.8
10°-20°	195.8	13.1
20°-30°	271.8	18.2
30°-40°	291.3	19.5
40°-50°	258.1	17.3
50°-60°	194.5	13.0
60°-70°	125.9	8.4
70°-80°	64.6	4.3
80°-90°	19.8	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°	539.6	36.1
0°-40°	830.9	55.6
0°-60°	1283.5	85.9
0°-90°	1493.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1493.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	775	775	775	775	775	
5°	770	771	761	762	762	73
15°	740	724	689	672	665	208
25°	666	630	582	551	541	306
35°	564	514	456	415	401	353
45°	450	392	322	272	252	347
55°	320	267	196	165	160	285
65°	178	144	113	106	106	177
75°	58	61	59	59	59	69
85°	15	16	18	20	20	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	774.8	774.8	774.8	774.8	774.8
2.5°	772.9	775.7	768.4	773.9	775.7
5°	770.2	771.1	761.1	762.0	762.0
7.5°	765.7	763.8	747.5	742.9	742.0
10°	759.3	753.8	730.2	721.1	718.3
12.5°	751.1	741.1	711.0	698.3	692.8
15°	740.2	723.8	689.2	671.9	664.6
17.5°	723.8	702.8	666.4	644.6	636.4
20°	708.3	680.1	640.9	613.6	606.3
22.5°	686.5	656.4	611.8	582.7	573.6
25°	665.5	630.0	581.8	550.8	540.8
27.5°	642.8	602.7	550.8	518.0	505.3
30°	616.4	573.6	519.8	485.3	471.6
32.5°	590.9	545.3	488.0	449.7	435.2
35°	564.5	513.5	456.1	415.2	400.6
37.5°	537.1	483.4	420.6	380.6	361.4
40°	509.8	453.4	388.7	343.2	326.8
42.5°	481.6	422.4	356.0	308.6	287.7
45°	449.7	391.5	322.3	272.2	252.2
47.5°	418.8	361.4	291.3	236.7	218.5
50°	386.0	329.6	258.6	205.8	193.9
52.5°	353.2	296.8	226.7	182.1	176.6
55°	320.5	266.8	195.7	164.8	160.2
57.5°	284.1	235.8	168.4	149.3	145.7
60°	247.6	202.1	144.8	134.7	132.0
62.5°	212.1	173.0	128.4	120.2	118.4
65°	178.4	143.8	112.9	106.5	105.6
67.5°	145.7	118.4	98.3	94.7	92.9
70°	112.9	94.7	84.7	82.8	81.0
72.5°	83.8	76.5	71.9	71.0	70.1
75°	58.3	61.0	59.2	59.2	59.2
77.5°	46.4	47.3	48.3	49.2	48.3
80°	33.7	36.4	37.3	39.1	38.2
82.5°	23.7	25.5	28.2	29.1	30.0
85°	14.6	15.5	18.2	20.0	20.0
87.5°	6.4	7.3	9.1	10.9	11.8
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	17.03	18.53	17.40	18.85	19.16	13.60	15.10	13.96	15.41	15.72
	3H	18.24	19.58	18.62	19.91	20.27	15.29	16.64	15.67	16.96	17.33
	4H	18.55	19.80	18.95	20.15	20.53	15.97	17.23	16.37	17.58	17.96
	6H	18.75	19.91	19.16	20.28	20.67	16.52	17.68	16.93	18.05	18.44
	8H	18.81	19.91	19.23	20.30	20.70	16.74	17.84	17.16	18.23	18.64
	12H	18.84	19.90	19.27	20.28	20.71	16.91	17.97	17.34	18.35	18.78
4H	2H	17.17	18.43	17.57	18.78	19.16	14.26	15.52	14.66	15.87	16.24
	3H	18.58	19.62	18.99	20.02	20.42	16.17	17.21	16.58	17.61	18.01
	4H	19.00	19.94	19.44	20.36	20.80	16.97	17.91	17.40	18.33	18.76
	6H	19.33	20.15	19.79	20.59	21.05	17.66	18.48	18.12	18.92	19.38
	8H	19.43	20.19	19.89	20.63	21.10	17.93	18.69	18.39	19.14	19.61
	12H	19.50	20.18	19.98	20.66	21.13	18.16	18.84	18.64	19.32	19.79
8H	4H	19.13	19.90	19.60	20.34	20.81	17.29	18.05	17.75	18.50	18.96
	6H	19.55	20.18	20.05	20.68	21.15	18.12	18.75	18.61	19.24	19.72
	8H	19.71	20.28	20.22	20.79	21.28	18.48	19.05	18.99	19.56	20.05
	12H	19.84	20.34	20.35	20.83	21.40	18.81	19.31	19.32	19.81	20.37
12H	4H	19.14	19.82	19.62	20.30	20.77	17.31	18.00	17.80	18.48	18.95
	6H	19.58	20.14	20.09	20.65	21.14	18.17	18.74	18.69	19.25	19.74
	8H	19.79	20.29	20.30	20.78	21.35	18.61	19.11	19.12	19.60	20.16