

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: P1060972

Luminaire Tested: S124RDR-H795D840-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060972
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-H795D840-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: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

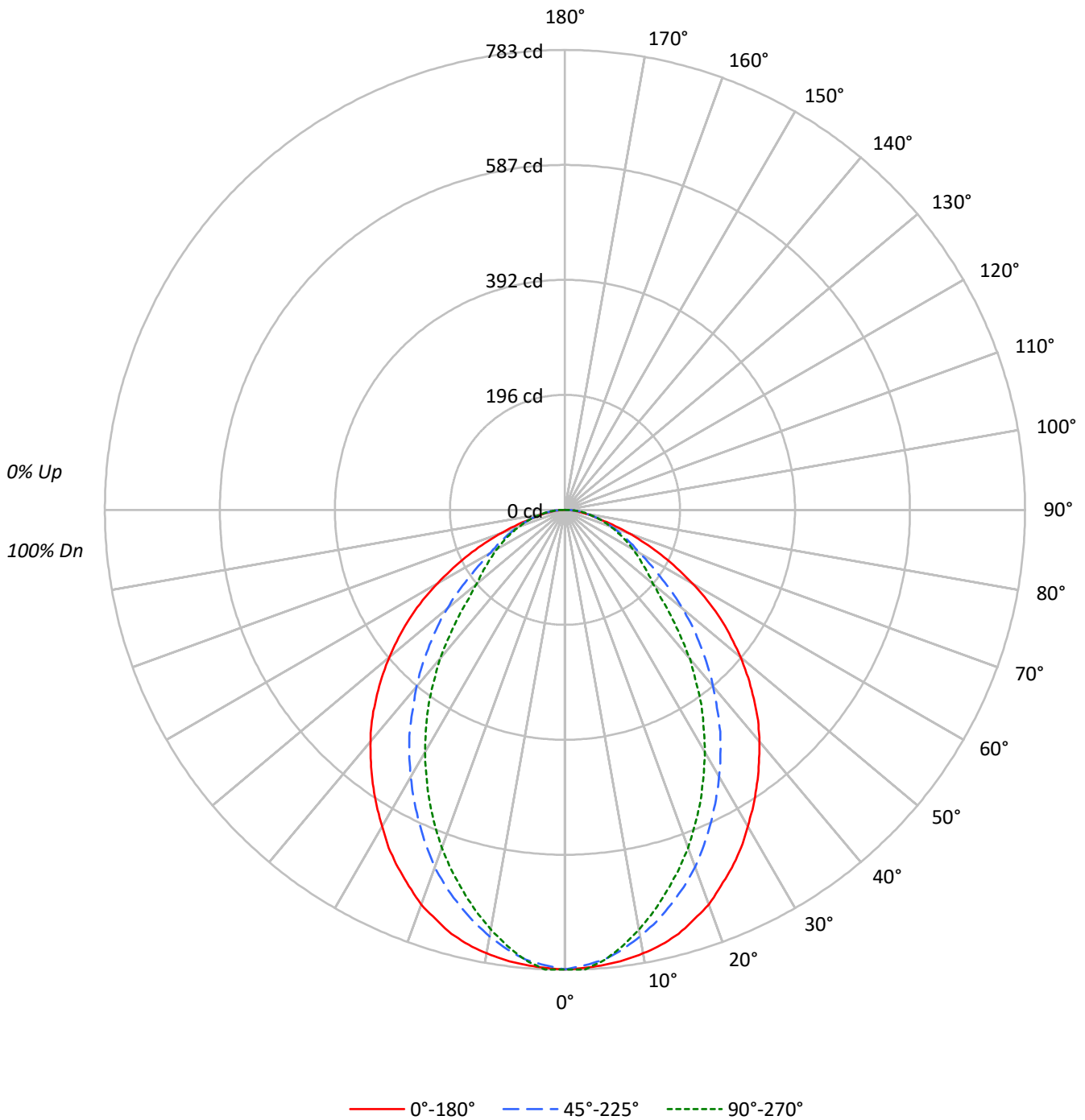
Lumens per Lamp: N/A
Luminaire Lumens: 1508.6 lumens
Efficiency: N/A
Efficacy: 64.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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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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				
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°	6737	6737	6737
5°	6723	6644	6652
10°	6705	6448	6343
15°	6664	6205	5984
20°	6555	5932	5611
25°	6386	5582	5189
30°	6189	5220	4735
35°	5992	4842	4252
40°	5788	4413	3711
45°	5531	3964	3102
50°	5222	3498	2623
55°	4858	2968	2429
60°	4307	2518	2296
65°	3672	2323	2174
70°	2870	2153	2060
75°	1956	1990	1990
80°	1686	1870	1914
85°	1452	1818	1996

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5531 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.8	4.8
10°-20°	197.7	13.1
20°-30°	274.4	18.2
30°-40°	294.2	19.5
40°-50°	260.6	17.3
50°-60°	196.4	13.0
60°-70°	127.2	8.4
70°-80°	65.3	4.3
80°-90°	20.0	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°	544.9	36.1
0°-40°	839.1	55.6
0°-60°	1296.2	85.9
0°-90°	1508.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1508.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	782	782	782	782	782	
5°	778	779	769	770	770	74
15°	748	731	696	678	671	210
25°	672	636	588	556	546	309
35°	570	518	461	419	404	356
45°	454	395	326	275	255	350
55°	324	269	198	166	162	287
65°	180	145	114	108	107	179
75°	59	62	60	60	60	70
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°	782.4	782.4	782.4	782.4	782.4
2.5°	780.6	783.3	776.0	781.5	783.3
5°	777.8	778.7	768.6	769.5	769.5
7.5°	773.2	771.4	754.8	750.2	749.3
10°	766.8	761.3	737.4	728.2	725.4
12.5°	758.5	748.4	718.1	705.2	699.7
15°	747.5	730.9	696.0	678.5	671.2
17.5°	730.9	709.8	673.0	650.9	642.7
20°	715.3	686.8	647.3	619.7	612.3
22.5°	693.2	662.9	617.8	588.4	579.2
25°	672.1	636.2	587.5	556.2	546.1
27.5°	649.1	608.6	556.2	523.1	510.3
30°	622.4	579.2	525.0	490.0	476.2
32.5°	596.7	550.7	492.8	454.2	439.5
35°	570.0	518.5	460.6	419.2	404.5
37.5°	542.4	488.2	424.8	384.3	365.0
40°	514.9	457.9	392.6	346.6	330.1
42.5°	486.4	426.6	359.5	311.7	290.5
45°	454.2	395.3	325.5	274.9	254.7
47.5°	422.9	365.0	294.2	239.0	220.7
50°	389.8	332.8	261.1	207.8	195.8
52.5°	356.7	299.7	228.9	183.9	178.4
55°	323.6	269.4	197.7	166.4	161.8
57.5°	286.9	238.1	170.1	150.8	147.1
60°	250.1	204.1	146.2	136.1	133.3
62.5°	214.2	174.7	129.6	121.4	119.5
65°	180.2	145.3	114.0	107.6	106.7
67.5°	147.1	119.5	99.3	95.6	93.8
70°	114.0	95.6	85.5	83.7	81.8
72.5°	84.6	77.2	72.6	71.7	70.8
75°	58.8	61.6	59.8	59.8	59.8
77.5°	46.9	47.8	48.7	49.6	48.7
80°	34.0	36.8	37.7	39.5	38.6
82.5°	23.9	25.7	28.5	29.4	30.3
85°	14.7	15.6	18.4	20.2	20.2
87.5°	6.4	7.4	9.2	11.0	12.0
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	17.07	18.57	17.43	18.88	19.19	13.63	15.13	14.00	15.44	15.76
	3H	18.27	19.62	18.65	19.94	20.31	15.33	16.67	15.71	17.00	17.36
	4H	18.58	19.84	18.98	20.19	20.57	16.01	17.27	16.41	17.61	17.99
	6H	18.78	19.94	19.19	20.31	20.70	16.55	17.72	16.97	18.08	18.48
	8H	18.84	19.95	19.27	20.34	20.74	16.77	17.88	17.20	18.27	18.67
	12H	18.87	19.93	19.30	20.31	20.74	16.94	18.00	17.37	18.39	18.81
4H	2H	17.21	18.47	17.61	18.82	19.20	14.29	15.55	14.69	15.90	16.28
	3H	18.61	19.66	19.02	20.06	20.46	16.20	17.25	16.61	17.65	18.05
	4H	19.04	19.98	19.47	20.39	20.83	17.00	17.94	17.44	18.36	18.80
	6H	19.36	20.18	19.82	20.62	21.08	17.69	18.51	18.15	18.95	19.41
	8H	19.46	20.22	19.92	20.67	21.14	17.96	18.73	18.43	19.17	19.64
	12H	19.53	20.21	20.01	20.69	21.16	18.19	18.88	18.68	19.36	19.83
8H	4H	19.16	19.93	19.63	20.37	20.84	17.32	18.09	17.78	18.53	19.00
	6H	19.59	20.22	20.08	20.71	21.19	18.15	18.78	18.65	19.27	19.75
	8H	19.74	20.31	20.26	20.82	21.31	18.51	19.08	19.03	19.59	20.08
	12H	19.87	20.37	20.38	20.86	21.43	18.85	19.35	19.36	19.84	20.41
12H	4H	19.17	19.85	19.65	20.33	20.80	17.35	18.03	17.83	18.51	18.98
	6H	19.61	20.18	20.12	20.69	21.18	18.21	18.78	18.72	19.29	19.78
	8H	19.82	20.32	20.33	20.81	21.38	18.64	19.14	19.15	19.63	20.20