

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: P1060884

Luminaire Tested: S124RDR-H575D835-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060884
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-H575D835-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

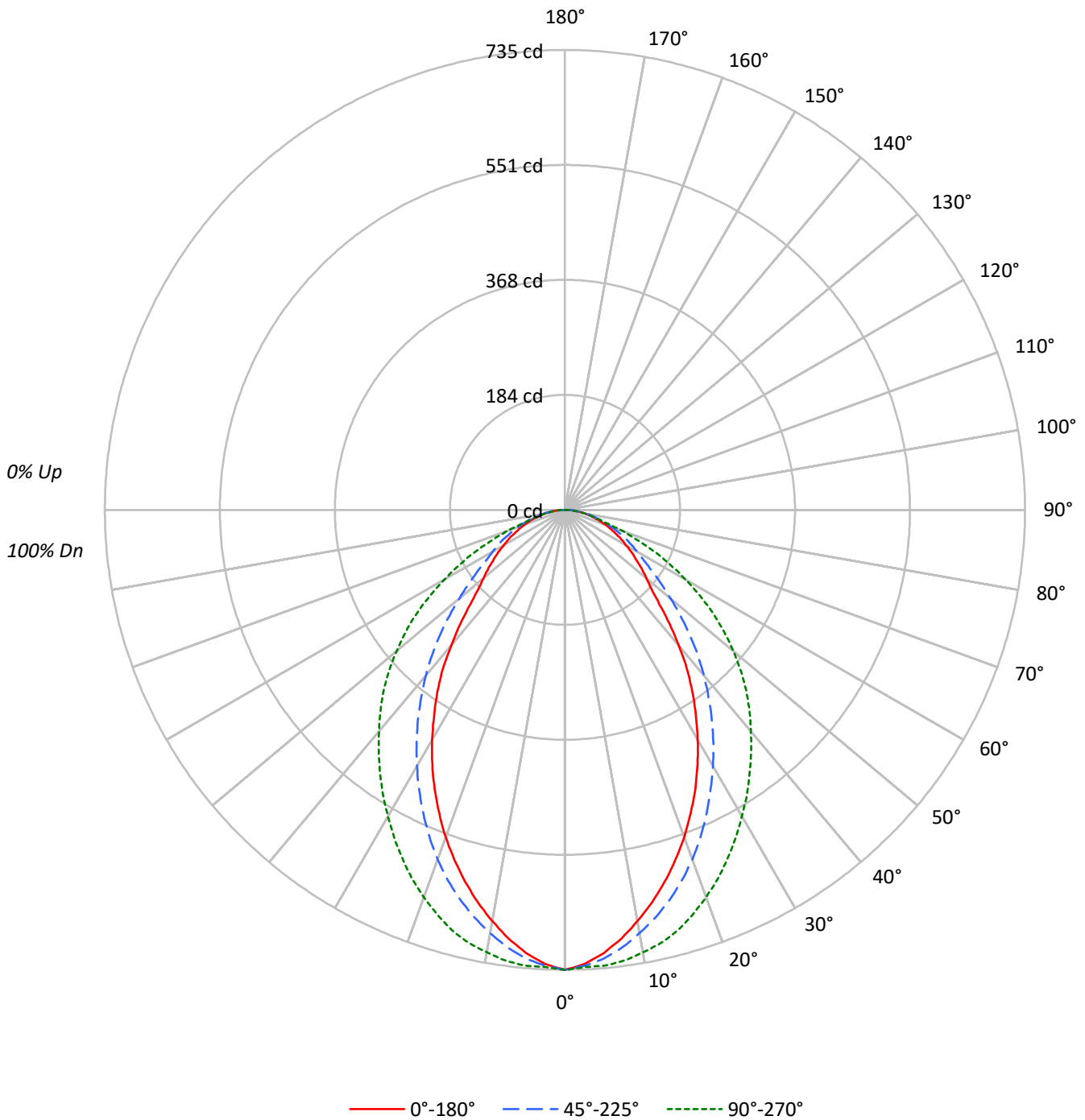
Lumens per Lamp: N/A
Luminaire Lumens: 1348.8 lumens
Efficiency: N/A
Efficacy: 77.5 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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

TEST NUMBER: P1060884

CATALOG NUMBER: S124RDR-H575D835-X4F0-XX-UDD-WVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1060884

CATALOG NUMBER: S124RDR-H575D835-X4F0-XX-UDD-WVL-W

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	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°	6330	6330	6330
5°	6146	6219	6321
10°	5836	6006	6280
15°	5486	5753	6206
20°	5102	5449	6039
25°	4678	5087	5840
30°	4217	4702	5621
35°	3734	4302	5410
40°	3173	3883	5192
45°	2599	3431	4991
50°	2275	2946	4697
55°	2090	2539	4346
60°	1938	2285	3832
65°	1815	2148	3207
70°	1705	1966	2407
75°	1600	1797	1753
80°	1483	1646	1483
85°	1354	1610	1284

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4991 cd/sqm



TEST NUMBER: P1060884

CATALOG NUMBER: S124RDR-H575D835-X4F0-XX-UDD-WVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.9	5.0
10°-20°	182.8	13.6
20°-30°	249.8	18.5
30°-40°	262.6	19.5
40°-50°	227.9	16.9
50°-60°	171.9	12.7
60°-70°	111.4	8.3
70°-80°	57.2	4.2
80°-90°	17.3	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°	500.6	37.1
0°-40°	763.1	56.6
0°-60°	1162.9	86.2
0°-90°	1348.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1348.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	735	735	735	735	735	
5°	711	721	720	725	731	66
15°	615	630	645	675	696	173
25°	492	510	535	576	615	226
35°	355	375	409	464	515	221
45°	213	234	282	352	410	168
55°	139	143	169	240	290	125
65°	89	91	105	128	157	89
75°	48	54	54	55	53	51
85°	14	17	16	16	13	16
90°	0	0	0	0	0	



TEST NUMBER: P1060884

CATALOG NUMBER: S124RDR-H575D835-X4F0-XX-UDD-WVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	735.1	735.1	735.1	735.1	735.1
2.5°	726.6	735.7	729.2	730.5	731.2
5°	711.0	720.8	719.5	725.3	731.2
7.5°	690.8	702.6	705.2	716.9	726.6
10°	667.4	680.4	686.9	705.8	718.2
12.5°	642.7	655.7	667.4	691.5	709.1
15°	615.4	630.3	645.3	674.6	696.1
17.5°	586.8	602.4	621.2	653.1	678.5
20°	556.8	572.5	594.6	629.0	659.0
22.5°	525.0	542.5	565.9	603.0	638.2
25°	492.4	510.0	535.4	576.4	614.7
27.5°	458.6	476.8	504.1	549.7	590.7
30°	424.1	443.7	472.9	521.1	565.3
32.5°	389.0	409.8	441.0	492.4	540.6
35°	355.2	374.7	409.2	463.8	514.6
37.5°	320.1	339.6	376.6	435.8	488.5
40°	282.3	303.8	345.4	406.6	461.9
42.5°	247.2	268.7	313.5	378.6	436.5
45°	213.4	233.5	281.7	351.9	409.8
47.5°	187.3	201.7	249.8	325.9	381.2
50°	169.8	176.3	219.9	297.3	350.6
52.5°	154.2	159.4	192.6	268.7	320.7
55°	139.2	143.1	169.1	240.0	289.5
57.5°	126.2	128.2	148.3	211.4	255.7
60°	112.5	115.1	132.7	182.1	222.5
62.5°	101.5	102.8	119.0	154.2	189.3
65°	89.1	91.1	105.4	127.5	157.4
67.5°	78.1	81.3	91.1	104.1	124.2
70°	67.7	72.2	78.1	84.6	95.6
72.5°	57.9	63.1	66.4	69.0	67.0
75°	48.1	54.0	54.0	54.6	52.7
77.5°	39.0	44.2	43.6	42.9	40.3
80°	29.9	34.5	33.2	32.5	29.9
82.5°	22.1	25.4	24.1	23.4	20.2
85°	13.7	16.9	16.3	15.6	13.0
87.5°	6.5	9.8	9.1	8.5	5.9
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1060884
 CATALOG NUMBER: S124RDR-H575D835-X4F0-XX-UDD-WVL-W

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	12.92	14.40	13.28	14.72	15.03	16.65	18.14	17.02	18.45	18.77
	3H	14.58	15.92	14.96	16.24	16.61	17.78	19.11	18.16	19.44	19.80
	4H	15.25	16.50	15.65	16.85	17.23	18.07	19.32	18.47	19.67	20.05
	6H	15.76	16.91	16.17	17.28	17.67	18.27	19.43	18.69	19.79	20.19
	8H	15.93	17.03	16.36	17.42	17.82	18.33	19.43	18.75	19.82	20.22
	12H	16.05	17.10	16.48	17.48	17.91	18.36	19.41	18.79	19.79	20.22
4H	2H	13.71	14.96	14.11	15.31	15.68	16.82	18.07	17.22	18.42	18.79
	3H	15.58	16.61	15.99	17.02	17.42	18.15	19.18	18.56	19.58	19.99
	4H	16.38	17.32	16.82	17.73	18.17	18.56	19.50	19.00	19.91	20.35
	6H	17.03	17.84	17.48	18.28	18.74	18.89	19.70	19.34	20.14	20.60
	8H	17.25	18.01	17.71	18.45	18.92	18.98	19.74	19.44	20.18	20.65
	12H	17.41	18.09	17.90	18.57	19.04	19.05	19.73	19.53	20.21	20.68
8H	4H	16.73	17.49	17.20	17.93	18.40	18.70	19.45	19.16	19.90	20.37
	6H	17.52	18.15	18.02	18.64	19.12	19.12	19.74	19.61	20.23	20.71
	8H	17.84	18.40	18.35	18.91	19.40	19.27	19.83	19.79	20.35	20.83
	12H	18.10	18.60	18.61	19.09	19.66	19.41	19.91	19.92	20.40	20.97
12H	4H	16.76	17.44	17.24	17.92	18.39	18.70	19.38	19.19	19.86	20.33
	6H	17.58	18.14	18.10	18.65	19.14	19.14	19.70	19.65	20.21	20.70
	8H	17.97	18.46	18.48	18.96	19.52	19.35	19.84	19.86	20.34	20.90