

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: P1060918

Luminaire Tested: S124RDR-H575D930-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060918
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-H575D930-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: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

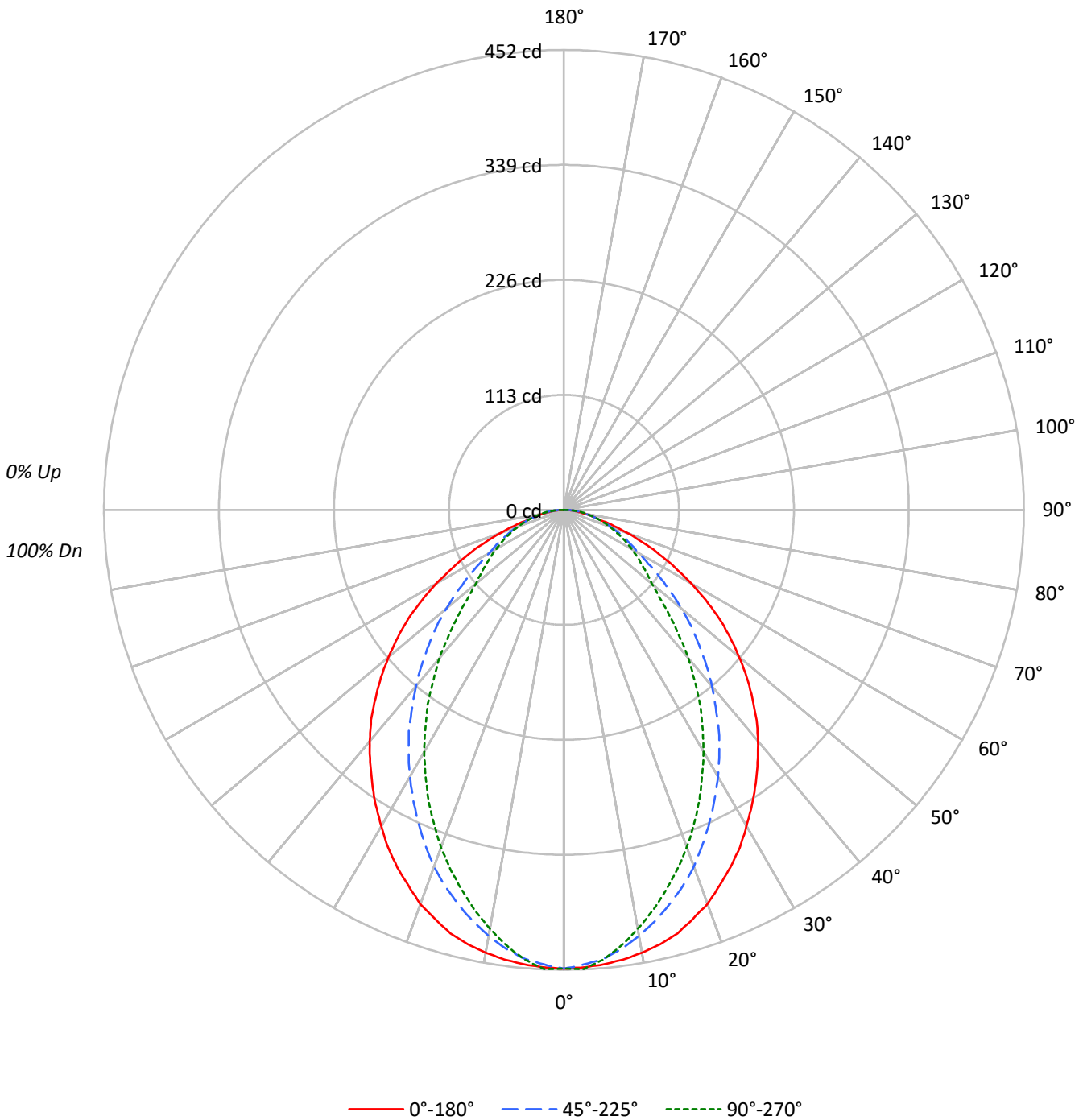
Lumens per Lamp: N/A
Luminaire Lumens: 869.7 lumens
Efficiency: N/A
Efficacy: 50.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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				
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°	3884	3884	3884
5°	3876	3830	3834
10°	3865	3717	3657
15°	3841	3577	3449
20°	3778	3419	3235
25°	3681	3218	2991
30°	3568	3009	2729
35°	3454	2791	2451
40°	3336	2544	2139
45°	3188	2285	1788
50°	3010	2016	1512
55°	2801	1711	1401
60°	2483	1452	1324
65°	2117	1339	1253
70°	1654	1241	1188
75°	1128	1148	1148
80°	972	1076	1106
85°	840	1047	1156

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3188 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.0	4.8
10°-20°	114.0	13.1
20°-30°	158.2	18.2
30°-40°	169.6	19.5
40°-50°	150.2	17.3
50°-60°	113.2	13.0
60°-70°	73.3	8.4
70°-80°	37.6	4.3
80°-90°	11.5	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°	314.1	36.1
0°-40°	483.7	55.6
0°-60°	747.2	85.9
0°-90°	869.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	869.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	451	451	451	451	451	
5°	448	449	443	444	444	43
15°	431	421	401	391	387	121
25°	387	367	339	321	315	178
35°	329	299	266	242	233	205
45°	262	228	188	158	147	202
55°	187	155	114	96	93	166
65°	104	84	66	62	62	103
75°	34	36	34	34	34	40
85°	8	9	11	12	12	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	451.0	451.0	451.0	451.0	451.0
2.5°	450.0	451.6	447.3	450.5	451.6
5°	448.4	448.9	443.1	443.6	443.6
7.5°	445.7	444.7	435.1	432.5	432.0
10°	442.0	438.8	425.1	419.8	418.2
12.5°	437.3	431.4	413.9	406.5	403.3
15°	430.9	421.4	401.2	391.1	386.9
17.5°	421.4	409.2	388.0	375.2	370.5
20°	412.3	395.9	373.1	357.2	353.0
22.5°	399.6	382.1	356.2	339.2	333.9
25°	387.4	366.8	338.7	320.7	314.8
27.5°	374.2	350.9	320.7	301.6	294.2
30°	358.8	333.9	302.6	282.5	274.5
32.5°	344.0	317.5	284.1	261.8	253.3
35°	328.6	298.9	265.5	241.7	233.2
37.5°	312.7	281.4	244.9	221.5	210.4
40°	296.8	263.9	226.3	199.8	190.3
42.5°	280.4	245.9	207.2	179.7	167.5
45°	261.8	227.9	187.6	158.5	146.8
47.5°	243.8	210.4	169.6	137.8	127.2
50°	224.7	191.9	150.5	119.8	112.9
52.5°	205.6	172.8	132.0	106.0	102.8
55°	186.6	155.3	114.0	95.9	93.3
57.5°	165.4	137.3	98.1	86.9	84.8
60°	144.2	117.7	84.3	78.4	76.9
62.5°	123.5	100.7	74.7	70.0	68.9
65°	103.9	83.7	65.7	62.0	61.5
67.5°	84.8	68.9	57.2	55.1	54.1
70°	65.7	55.1	49.3	48.2	47.2
72.5°	48.8	44.5	41.9	41.3	40.8
75°	33.9	35.5	34.5	34.5	34.5
77.5°	27.0	27.6	28.1	28.6	28.1
80°	19.6	21.2	21.7	22.8	22.3
82.5°	13.8	14.8	16.4	17.0	17.5
85°	8.5	9.0	10.6	11.7	11.7
87.5°	3.7	4.2	5.3	6.4	6.9
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	15.15	16.65	15.52	16.97	17.28	11.72	13.21	12.08	13.53	13.84
	3H	16.36	17.70	16.74	18.03	18.39	13.41	14.76	13.79	15.08	15.45
	4H	16.67	17.92	17.07	18.27	18.65	14.09	15.35	14.49	15.70	16.08
	6H	16.87	18.03	17.28	18.40	18.79	14.64	15.80	15.05	16.17	16.56
	8H	16.93	18.03	17.35	18.42	18.82	14.86	15.97	15.29	16.36	16.76
	12H	16.96	18.02	17.39	18.40	18.83	15.03	16.09	15.46	16.47	16.90
4H	2H	15.30	16.56	15.70	16.90	17.28	12.38	13.64	12.78	13.98	14.36
	3H	16.70	17.74	17.11	18.14	18.54	14.29	15.33	14.70	15.73	16.13
	4H	17.12	18.06	17.56	18.48	18.92	15.09	16.03	15.52	16.45	16.89
	6H	17.45	18.27	17.91	18.71	19.17	15.78	16.60	16.24	17.04	17.50
	8H	17.55	18.31	18.01	18.75	19.22	16.05	16.82	16.52	17.26	17.73
	12H	17.62	18.30	18.10	18.78	19.25	16.28	16.97	16.77	17.45	17.92
8H	4H	17.25	18.02	17.71	18.46	18.93	15.41	16.17	15.87	16.62	17.08
	6H	17.67	18.30	18.17	18.80	19.27	16.24	16.87	16.73	17.36	17.84
	8H	17.83	18.40	18.34	18.91	19.39	16.60	17.17	17.12	17.68	18.17
	12H	17.96	18.46	18.47	18.95	19.52	16.94	17.44	17.45	17.93	18.50
12H	4H	17.26	17.94	17.74	18.42	18.89	15.44	16.12	15.92	16.60	17.07
	6H	17.70	18.26	18.21	18.77	19.26	16.30	16.86	16.81	17.37	17.86
	8H	17.91	18.41	18.42	18.90	19.46	16.73	17.23	17.24	17.72	18.29