

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1060246

Luminaire Tested: S124RDRP-S1020D850-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060246
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-39)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-S1020D850-X4F0-XX-UDD-BVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

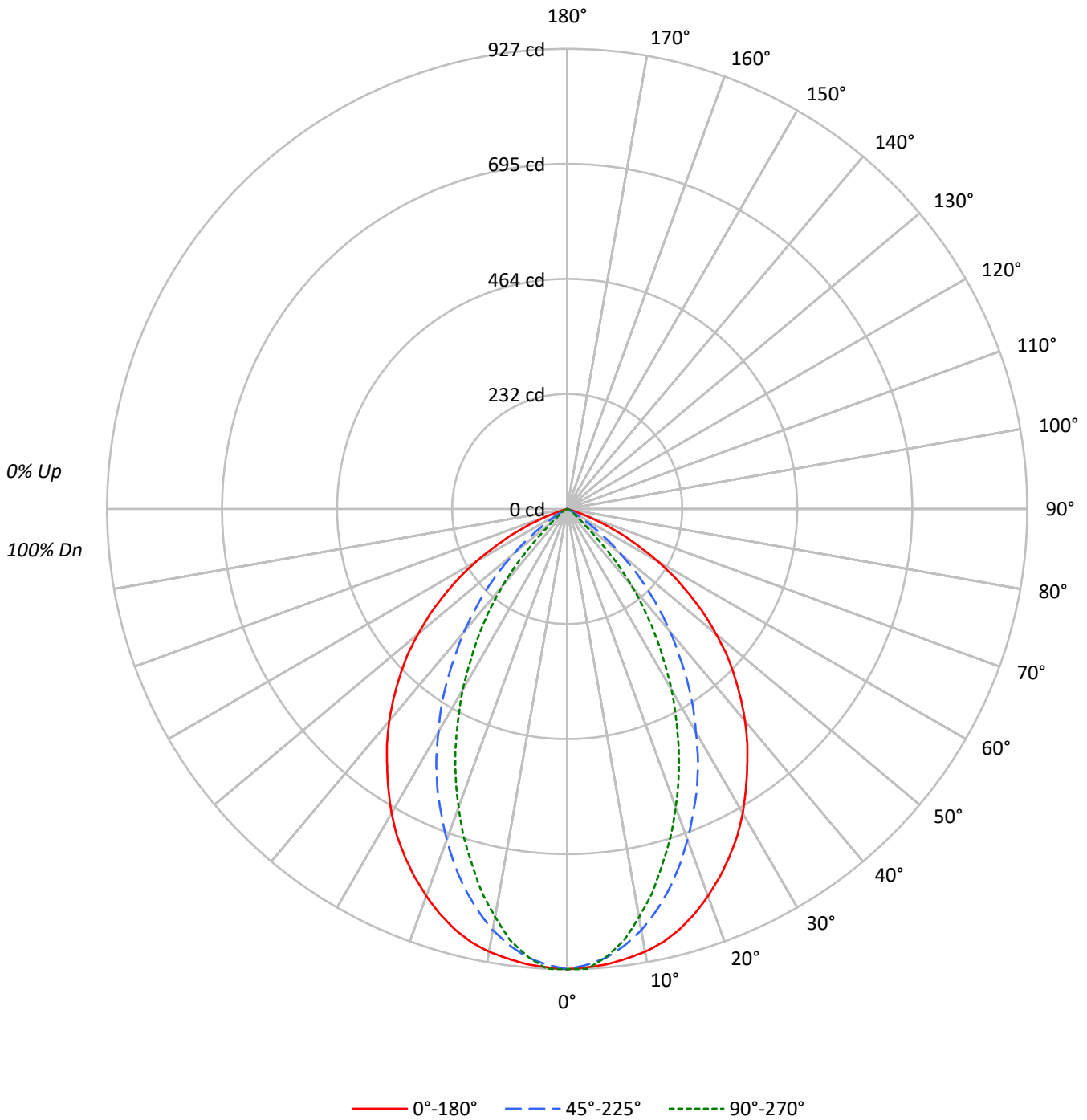
Lumens per Lamp: N/A
Luminaire Lumens: 1210.7 lumens
Efficiency: N/A
Efficacy: 34.6 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): 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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	109	106	103	110	107	104	102	103	101	99	99	97	96	96	94	93	91
2	105	99	95	90	103	98	93	89	94	91	87	91	88	86	88	86	84	82
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74
4	92	83	76	71	90	82	76	71	79	74	70	77	73	69	75	71	68	66
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	47	46
9	67	56	49	44	66	56	49	44	54	48	44	54	48	44	53	48	44	42
10	64	52	46	41	63	52	45	41	51	45	41	50	45	41	49	44	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7984	7984	7984
5°	7957	7841	7829
10°	7919	7533	7299
15°	7812	7071	6605
20°	7600	6495	5857
25°	7345	5881	5054
30°	7034	5156	4183
35°	6648	4423	3254
40°	6266	3630	2274
45°	5809	2790	1125
50°	5241	1885	376
55°	4526	965	261
60°	3624	346	184
65°	2484	192	82
70°	1113	101	68
75°	0	43	43
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5809 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.6	7.1
10°-20°	224.4	18.5
20°-30°	290.6	24.0
30°-40°	276.1	22.8
40°-50°	195.5	16.1
50°-60°	100.4	8.3
60°-70°	35.1	2.9
70°-80°	3.0	0.3
80°-90°	0.0	0.0
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°	600.6	49.6
0°-40°	876.7	72.4
0°-60°	1172.6	96.8
0°-90°	1210.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1210.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	927	927	927	927	927	
5°	920	922	907	907	906	87
15°	876	850	793	756	741	246
25°	773	713	619	553	532	356
35°	632	540	421	339	310	396
45°	477	367	229	131	92	367
55°	302	198	64	19	17	269
65°	122	59	9	5	4	121
75°	0	1	1	1	1	10
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	927.2	927.2	927.2	927.2	927.2
2.5°	924.5	927.2	919.1	925.8	927.2
5°	920.5	921.8	907.1	907.1	905.7
7.5°	913.8	911.1	887.0	877.6	876.3
10°	905.7	896.4	861.5	841.4	834.7
12.5°	893.7	876.3	829.4	799.9	791.9
15°	876.3	849.5	793.2	755.7	740.9
17.5°	854.8	820.0	753.0	707.4	692.7
20°	829.4	785.2	708.8	657.9	639.1
22.5°	802.6	751.7	663.2	605.6	586.9
25°	773.1	712.8	619.0	553.4	531.9
27.5°	742.3	671.3	570.8	502.4	474.3
30°	707.4	629.7	518.5	447.5	420.7
32.5°	669.9	584.2	471.6	395.3	363.1
35°	632.4	540.0	420.7	339.0	309.5
37.5°	596.2	498.4	369.8	284.0	255.9
40°	557.4	452.9	322.9	234.5	202.3
42.5°	517.2	408.7	274.7	183.6	148.7
45°	477.0	367.1	229.1	131.3	92.4
47.5°	436.8	322.9	184.9	83.1	49.6
50°	391.2	280.0	140.7	44.2	28.1
52.5°	348.4	239.8	100.5	25.5	21.4
55°	301.5	198.3	64.3	18.8	17.4
57.5°	257.3	158.1	36.2	14.7	13.4
60°	210.4	121.9	20.1	12.1	10.7
62.5°	163.5	88.4	13.4	8.0	6.7
65°	121.9	59.0	9.4	5.4	4.0
67.5°	80.4	33.5	6.7	2.7	2.7
70°	44.2	16.1	4.0	2.7	2.7
72.5°	16.1	5.4	2.7	1.3	1.3
75°	0.0	1.3	1.3	1.3	1.3
77.5°	0.0	0.0	0.0	0.0	1.3
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	15.75	17.00	16.11	17.32	17.63	0.00	0.00	0.00	0.00	0.28
	3H	16.02	17.13	16.40	17.46	17.83	0.00	0.00	0.00	0.00	0.28
	4H	15.95	16.97	16.35	17.32	17.71	0.00	0.00	0.00	0.00	0.22
	6H	15.86	16.80	16.28	17.17	17.57	0.00	0.00	0.00	0.00	0.11
	8H	15.82	16.70	16.25	17.09	17.50	0.00	0.00	0.00	0.00	0.04
	12H	15.77	16.61	16.20	17.00	17.43	0.00	0.00	0.00	0.00	0.00
4H	2H	15.52	16.54	15.92	16.90	17.28	0.00	0.00	0.00	0.24	0.63
	3H	15.80	16.63	16.22	17.04	17.44	0.00	0.00	0.00	0.24	0.64
	4H	15.71	16.45	16.15	16.87	17.31	0.00	0.00	0.00	0.14	0.59
	6H	15.62	16.25	16.09	16.70	17.17	0.00	0.00	0.00	0.00	0.47
	8H	15.56	16.15	16.03	16.60	17.07	0.00	0.00	0.00	0.00	0.37
	12H	15.51	16.03	16.00	16.51	16.99	0.00	0.00	0.00	0.00	0.29
8H	4H	15.56	16.15	16.03	16.60	17.07	0.00	0.00	0.00	0.08	0.56
	6H	15.45	15.93	15.96	16.43	16.91	0.00	0.00	0.00	0.00	0.42
	8H	15.39	15.81	15.91	16.33	16.83	0.00	0.00	0.00	0.00	0.33
	12H	15.34	15.71	15.85	16.21	16.78	0.00	0.00	0.00	0.00	0.29
12H	4H	15.51	16.03	16.00	16.51	16.99	0.00	0.00	0.00	0.00	0.47
	6H	15.39	15.81	15.91	16.33	16.83	0.00	0.00	0.00	0.00	0.33
	8H	15.34	15.71	15.85	16.21	16.78	0.00	0.00	0.00	0.00	0.29