

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: P1060246

Luminaire Tested: S124RDR-S1020D850-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
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: S124RDR-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

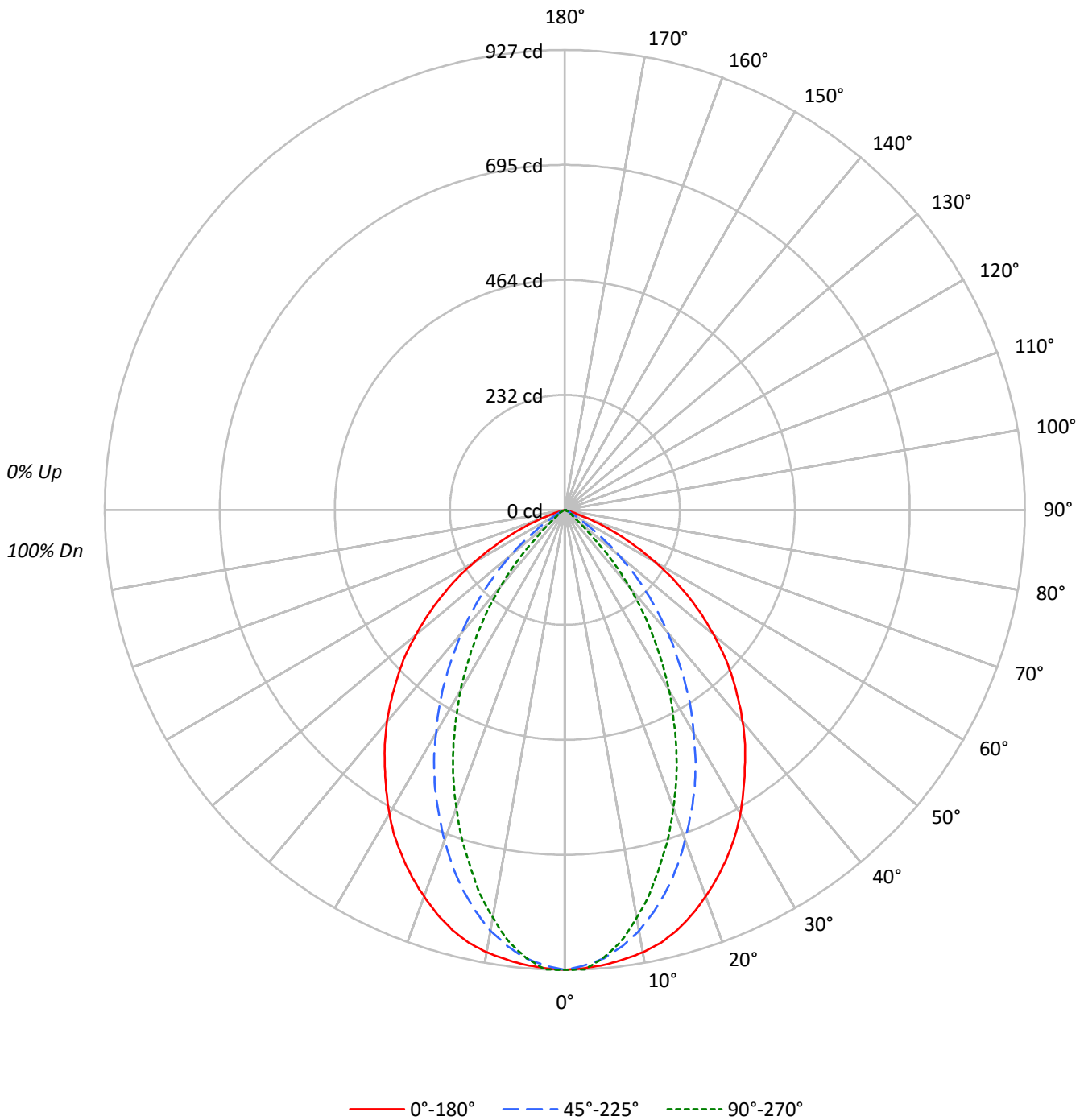
Lumens per Lamp: N/A
Luminaire Lumens: 1210.7 lumens
Efficiency: N/A
Efficacy: 34.6 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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

(END OF REPORT)