

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: P1059271

Luminaire Tested: S123RDRP-S560D840-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059271
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-28)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S560D840-X4F0-XX-UDD-WVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

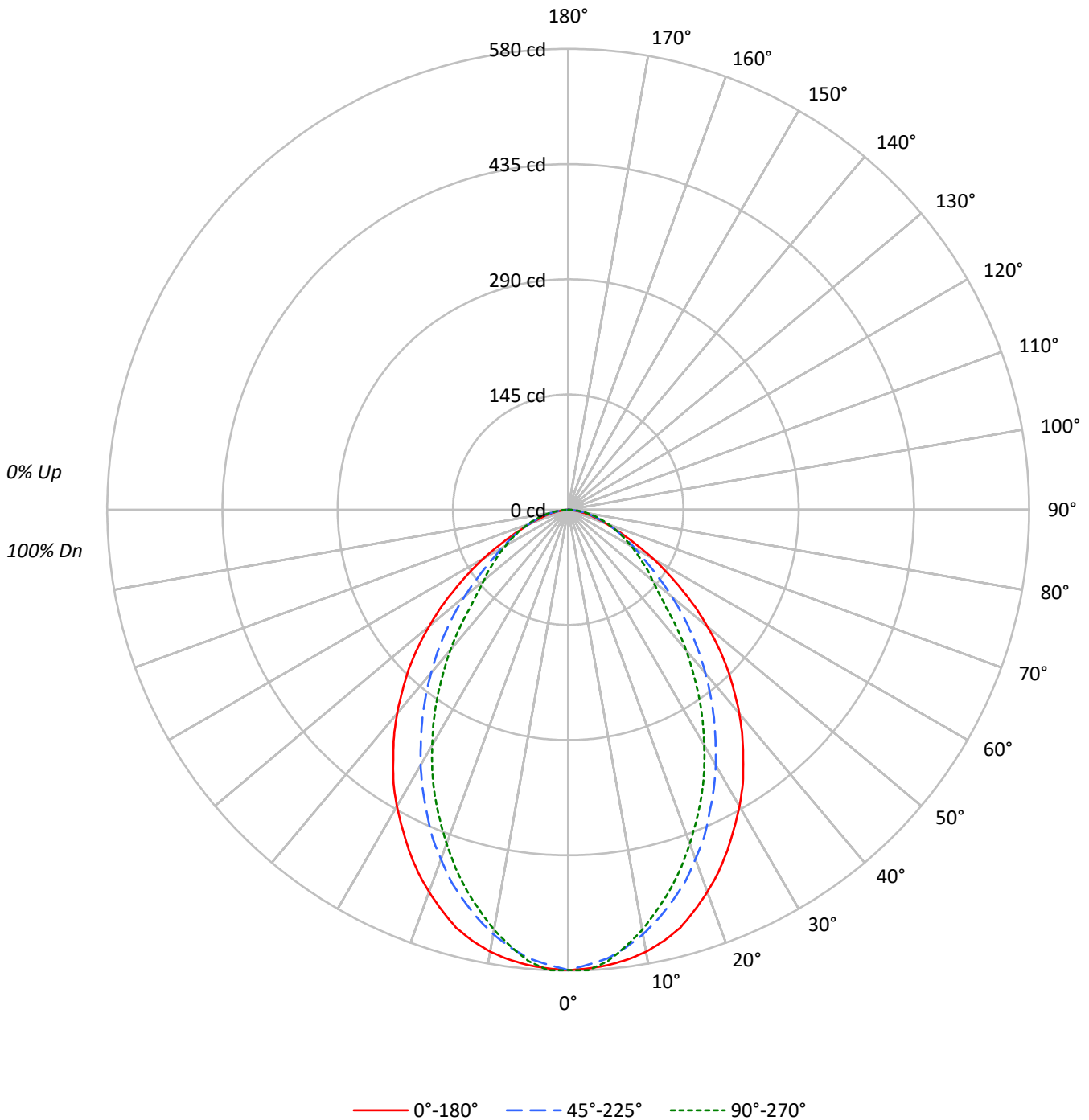
Lumens per Lamp: N/A
Luminaire Lumens: 1013.5 lumens
Efficiency: N/A
Efficacy: 51.7 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	88
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6805	6805	6805
5°	6781	6682	6723
10°	6736	6470	6403
15°	6622	6189	6020
20°	6397	5848	5587
25°	6136	5451	5144
30°	5845	5033	4637
35°	5502	4583	4104
40°	5135	4111	3533
45°	4708	3632	2903
50°	4174	3117	2519
55°	3550	2610	2309
60°	2896	2273	2142
65°	2206	2012	1992
70°	1720	1792	1864
75°	1388	1611	1738
80°	1035	1319	1603
85°	566	849	1401

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4708 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.8	5.3
10°-20°	144.7	14.3
20°-30°	196.7	19.4
30°-40°	204.0	20.1
40°-50°	172.0	17.0
50°-60°	122.1	12.0
60°-70°	74.6	7.4
70°-80°	37.1	3.7
80°-90°	8.4	0.8
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°	395.3	39.0
0°-40°	599.2	59.1
0°-60°	893.3	88.1
0°-90°	1013.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1013.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	580	580	580	580	580	
5°	575	575	567	570	570	55
15°	545	534	509	500	495	153
25°	474	453	421	405	397	218
35°	384	354	320	297	286	240
45°	284	254	219	189	175	218
55°	173	155	128	116	113	156
65°	79	77	72	72	72	81
75°	31	33	36	37	38	33
85°	4	5	6	9	10	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	579.5	579.5	579.5	579.5	579.5
2.5°	578.1	578.8	573.2	579.5	580.2
5°	575.3	575.3	566.9	570.4	570.4
7.5°	571.1	569.7	555.8	555.8	554.4
10°	564.9	560.7	542.6	539.1	537.0
12.5°	555.8	548.8	526.6	520.3	516.1
15°	544.7	534.2	509.1	500.1	495.2
17.5°	528.6	518.2	490.3	477.8	472.2
20°	511.9	496.6	468.0	455.5	447.1
22.5°	493.8	474.3	446.5	431.1	422.1
25°	473.6	452.7	420.7	405.4	397.0
27.5°	452.0	429.0	396.3	378.9	370.5
30°	431.1	404.7	371.2	351.7	342.0
32.5°	408.8	378.9	344.8	324.6	314.8
35°	383.8	354.5	319.7	297.4	286.3
37.5°	360.1	330.1	293.9	270.2	257.7
40°	335.0	305.1	268.2	243.8	230.5
42.5°	308.5	280.0	243.8	215.2	202.7
45°	283.5	253.5	218.7	188.8	174.8
47.5°	256.3	228.5	194.3	163.7	153.9
50°	228.5	202.7	170.6	142.8	137.9
52.5°	201.3	179.7	147.0	128.9	126.8
55°	173.4	155.3	127.5	116.3	112.8
57.5°	147.7	134.4	109.3	103.8	102.4
60°	123.3	112.1	96.8	93.3	91.2
62.5°	99.6	93.3	84.3	82.9	81.5
65°	79.4	76.6	72.4	72.4	71.7
67.5°	62.7	62.7	62.0	63.4	62.7
70°	50.1	50.8	52.2	53.6	54.3
72.5°	39.7	41.8	43.2	45.3	46.0
75°	30.6	32.7	35.5	36.9	38.3
77.5°	22.3	24.4	27.2	29.3	30.6
80°	15.3	16.7	19.5	22.3	23.7
82.5°	9.8	10.4	12.5	15.3	16.7
85°	4.2	4.9	6.3	9.1	10.4
87.5°	0.0	0.0	0.7	2.8	4.9
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	15.47	16.92	15.84	17.23	17.55	13.57	15.02	13.93	15.33	15.65
	3H	16.37	17.66	16.75	17.99	18.35	15.14	16.44	15.52	16.77	17.13
	4H	16.65	17.86	17.05	18.21	18.59	15.74	16.95	16.14	17.30	17.68
	6H	16.80	17.92	17.21	18.29	18.68	16.19	17.31	16.60	17.67	18.07
	8H	16.82	17.89	17.25	18.28	18.68	16.34	17.40	16.76	17.79	18.19
	12H	16.82	17.83	17.25	18.22	18.65	16.44	17.45	16.87	17.83	18.26
4H	2H	15.71	16.93	16.12	17.28	17.66	14.11	15.32	14.51	15.67	16.05
	3H	16.83	17.83	17.24	18.23	18.63	15.88	16.88	16.29	17.29	17.69
	4H	17.22	18.12	17.65	18.53	18.97	16.60	17.49	17.03	17.91	18.35
	6H	17.46	18.24	17.92	18.68	19.14	17.17	17.95	17.63	18.39	18.85
	8H	17.50	18.23	17.97	18.67	19.14	17.36	18.09	17.82	18.53	19.00
	12H	17.51	18.16	17.99	18.64	19.11	17.50	18.14	17.98	18.62	19.10
8H	4H	17.38	18.10	17.84	18.55	19.02	16.80	17.53	17.27	17.98	18.45
	6H	17.69	18.29	18.19	18.78	19.26	17.48	18.08	17.98	18.57	19.05
	8H	17.76	18.30	18.28	18.81	19.30	17.74	18.27	18.25	18.79	19.28
	12H	17.80	18.27	18.31	18.77	19.33	17.95	18.42	18.46	18.91	19.48
12H	4H	17.38	18.03	17.86	18.51	18.98	16.80	17.45	17.29	17.93	18.40
	6H	17.70	18.24	18.22	18.75	19.24	17.49	18.03	18.01	18.54	19.03
	8H	17.82	18.29	18.33	18.78	19.35	17.79	18.27	18.30	18.76	19.33