

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: P1058543

Luminaire Tested: S122RDR-H865D840-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058543
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-58)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H865D840-X4F0-XX-UDD-WVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

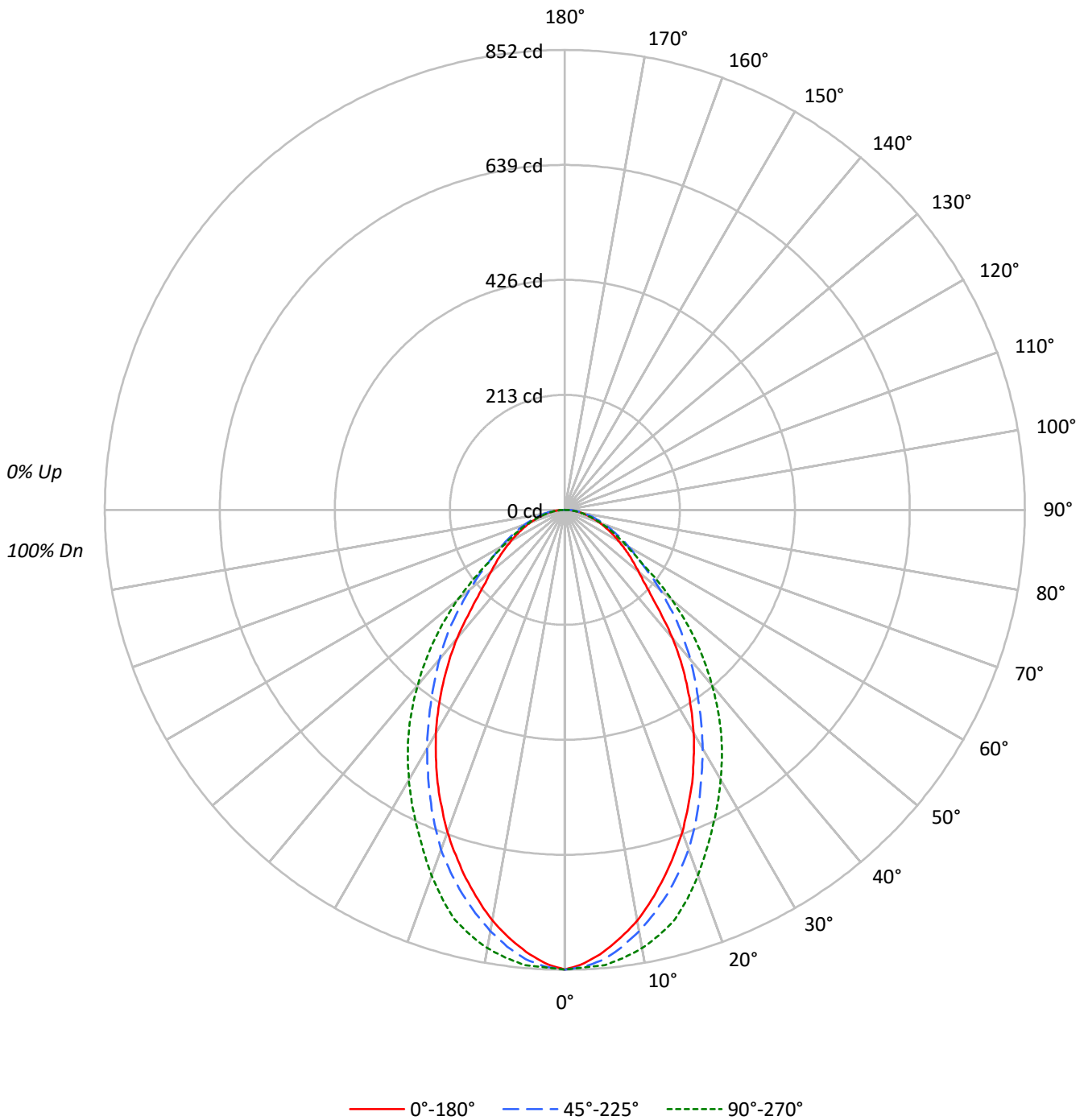
Lumens per Lamp: N/A
Luminaire Lumens: 1387.1 lumens
Efficiency: N/A
Efficacy: 44.5 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87
2	102	95	89	84	100	93	88	83	90	85	81	87	83	79	84	80	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66
4	88	77	69	63	85	76	69	63	73	67	62	71	66	61	69	64	61	59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47
7	71	59	51	45	69	58	51	45	57	50	45	55	49	45	54	49	44	43
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36
10	59	47	40	35	58	46	39	35	45	39	35	45	39	34	44	38	34	33

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15718	15718	15718
5°	15230	15481	15687
10°	14478	14849	15451
15°	13510	14052	15021
20°	12479	13159	14154
25°	11353	12006	13189
30°	10168	10879	12303
35°	8857	9720	11362
40°	7475	8696	10216
45°	5937	7680	8938
50°	5110	6603	7418
55°	4655	5649	5688
60°	4244	5019	4838
65°	3886	4537	4266
70°	3604	4203	3804
75°	3351	3964	3351
80°	3156	3815	3018
85°	3133	3917	2625

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8938 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.6	5.7
10°-20°	207.9	15.0
20°-30°	273.6	19.7
30°-40°	275.1	19.8
40°-50°	222.9	16.1
50°-60°	153.6	11.1
60°-70°	100.5	7.2
70°-80°	56.0	4.0
80°-90°	19.0	1.4
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°	560.1	40.4
0°-40°	835.1	60.2
0°-60°	1211.7	87.4
0°-90°	1387.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1387.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	852	852	852	852	852	
5°	822	838	836	840	847	77
15°	707	724	736	763	786	198
25°	558	572	590	616	648	256
35°	393	412	432	470	504	245
45°	228	254	294	320	342	180
55°	145	161	176	179	177	130
65°	89	106	104	99	98	89
75°	47	58	56	50	47	50
85°	15	20	18	16	12	16
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	851.8	851.8	851.8	851.8	851.8
2.5°	840.7	855.6	846.9	846.9	848.1
5°	822.2	838.2	835.8	839.5	846.9
7.5°	798.7	816.0	816.0	827.1	837.0
10°	772.7	790.0	792.5	809.8	824.6
12.5°	740.6	757.9	765.3	787.6	807.3
15°	707.2	724.5	735.6	762.8	786.3
17.5°	671.3	688.6	703.5	731.9	755.4
20°	635.5	651.6	670.1	694.8	720.8
22.5°	595.9	613.2	630.5	654.0	683.7
25°	557.6	572.4	589.7	615.7	647.8
27.5°	516.8	532.9	548.9	579.8	613.2
30°	477.2	493.3	510.6	542.8	577.4
32.5°	435.2	452.5	469.8	505.7	541.5
35°	393.2	411.7	431.5	469.8	504.4
37.5°	352.4	372.1	395.6	435.2	464.9
40°	310.3	331.3	361.0	395.6	424.1
42.5°	265.8	291.8	327.6	357.3	383.3
45°	227.5	253.5	294.3	320.2	342.5
47.5°	199.1	220.1	259.6	281.9	300.4
50°	178.0	194.1	230.0	246.0	258.4
52.5°	160.7	176.8	201.5	212.7	216.4
55°	144.7	160.7	175.6	179.3	176.8
57.5°	128.6	145.9	154.5	150.8	150.8
60°	115.0	133.5	136.0	131.1	131.1
62.5°	101.4	119.9	119.9	113.7	113.7
65°	89.0	106.3	103.9	98.9	97.7
67.5°	77.9	94.0	90.3	85.3	84.1
70°	66.8	81.6	77.9	71.7	70.5
72.5°	56.9	70.5	65.5	60.6	58.1
75°	47.0	58.1	55.6	49.5	47.0
77.5°	38.3	47.0	44.5	39.6	37.1
80°	29.7	37.1	35.9	30.9	28.4
82.5°	22.3	28.4	27.2	23.5	19.8
85°	14.8	19.8	18.5	16.1	12.4
87.5°	7.4	13.6	12.4	11.1	6.2
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	16.30	17.74	16.67	18.05	18.37	16.66	18.10	17.02	18.41	18.73
	3H	17.85	19.14	18.22	19.46	19.83	18.01	19.30	18.38	19.62	19.99
	4H	18.42	19.63	18.82	19.97	20.35	18.49	19.70	18.89	20.05	20.43
	6H	18.85	19.96	19.26	20.33	20.72	18.84	19.96	19.26	20.33	20.72
	8H	19.00	20.06	19.43	20.45	20.85	18.96	20.02	19.39	20.41	20.81
	12H	19.12	20.13	19.55	20.51	20.94	19.04	20.05	19.47	20.43	20.86
4H	2H	16.89	18.10	17.29	18.45	18.83	17.17	18.38	17.58	18.73	19.11
	3H	18.71	19.71	19.12	20.11	20.51	18.75	19.75	19.16	20.15	20.55
	4H	19.46	20.36	19.89	20.77	21.21	19.35	20.25	19.79	20.67	21.11
	6H	20.04	20.83	20.50	21.27	21.73	19.83	20.62	20.29	21.06	21.52
	8H	20.25	20.99	20.72	21.43	21.90	20.00	20.73	20.46	21.18	21.64
	12H	20.42	21.07	20.90	21.55	22.03	20.12	20.77	20.60	21.25	21.72
8H	4H	19.74	20.47	20.21	20.92	21.39	19.65	20.39	20.12	20.83	21.30
	6H	20.50	21.10	21.00	21.59	22.07	20.27	20.88	20.77	21.37	21.85
	8H	20.82	21.36	21.34	21.88	22.36	20.52	21.06	21.04	21.57	22.06
	12H	21.11	21.59	21.62	22.08	22.65	20.73	21.21	21.24	21.70	22.27
12H	4H	19.76	20.41	20.24	20.89	21.36	19.69	20.34	20.17	20.82	21.29
	6H	20.56	21.10	21.07	21.61	22.10	20.35	20.89	20.86	21.40	21.89
	8H	20.96	21.44	21.47	21.93	22.50	20.67	21.15	21.18	21.64	22.21