

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: P1060729

Luminaire Tested: S124RDR-H1195D840-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060729
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-H1195D840-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: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

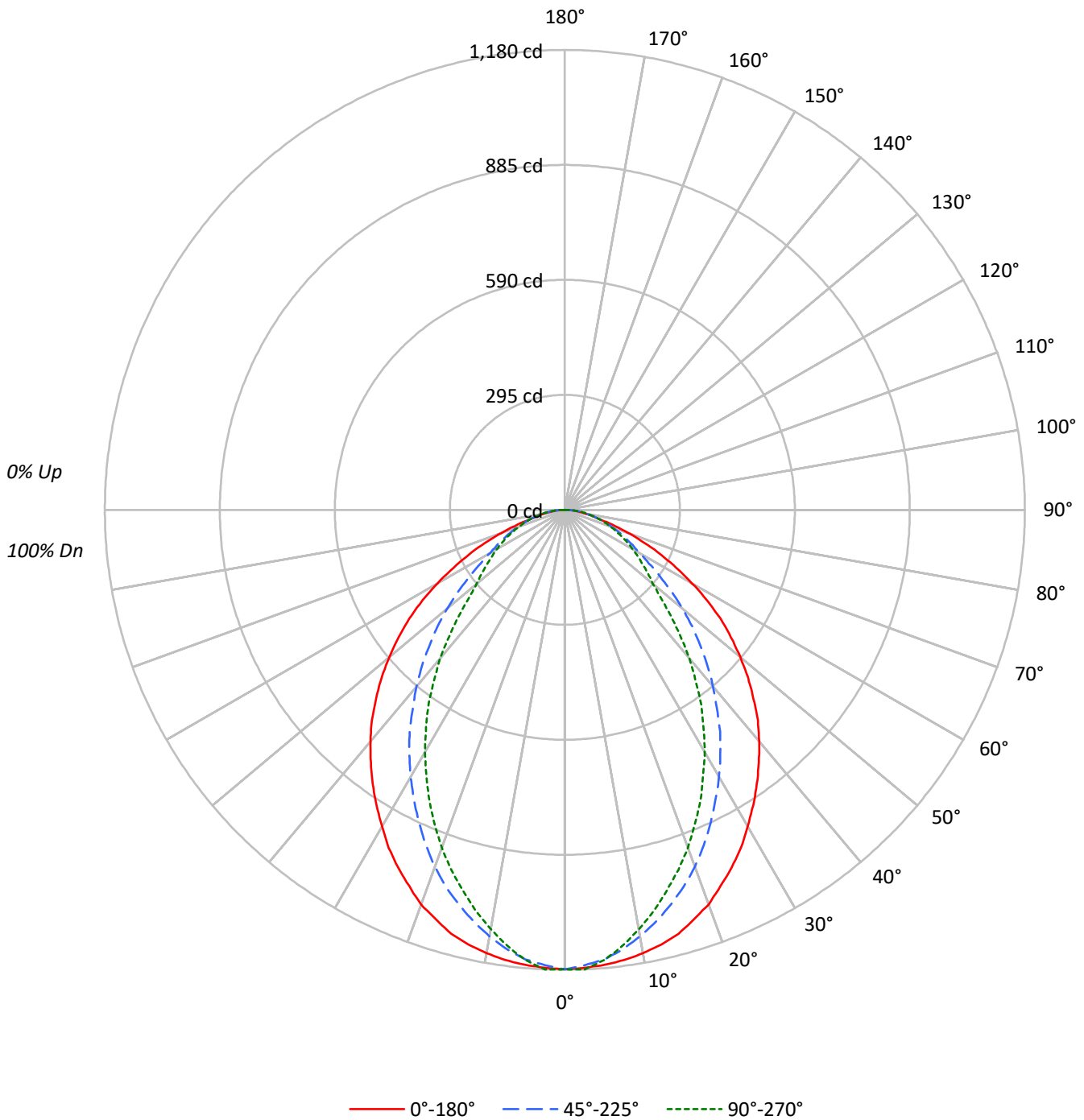
Lumens per Lamp: N/A
Luminaire Lumens: 2272.8 lumens
Efficiency: N/A
Efficacy: 62.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
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

TEST NUMBER: P1060729

CATALOG NUMBER: S124RDR-H1195D840-X4F0-XX-UDD-WVL-B

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	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86			86	
2	101	94	88	83	99	92	86	82	89	84	80	85	82	78	82	79	76	74			74	
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66	64			64	
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56			56	
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50			50	
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44			44	
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40			40	
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38	36			36	
9	61	48	40	35	59	48	40	35	46	40	35	45	39	35	44	39	35	33			33	
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	30			30	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10150	10150	10150
5°	10129	10009	10021
10°	10101	9714	9555
15°	10039	9347	9014
20°	9875	8936	8454
25°	9620	8410	7818
30°	9324	7864	7134
35°	9028	7294	6406
40°	8720	6648	5590
45°	8332	5971	4673
50°	7868	5270	3952
55°	7320	4471	3660
60°	6488	3792	3458
65°	5532	3501	3274
70°	4325	3243	3104
75°	2948	2994	2994
80°	2539	2817	2886
85°	2193	2737	3013

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8332 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.7	4.8
10°-20°	297.8	13.1
20°-30°	413.5	18.2
30°-40°	443.2	19.5
40°-50°	392.6	17.3
50°-60°	295.9	13.0
60°-70°	191.6	8.4
70°-80°	98.3	4.3
80°-90°	30.2	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°	821.0	36.1
0°-40°	1264.2	55.6
0°-60°	1952.7	85.9
0°-90°	2272.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2272.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1179	1179	1179	1179	1179	
5°	1172	1173	1158	1159	1159	111
15°	1126	1101	1048	1022	1011	317
25°	1012	958	885	838	823	466
35°	859	781	694	632	609	537
45°	684	596	490	414	384	528
55°	488	406	298	251	244	433
65°	272	219	172	162	161	269
75°	89	93	90	90	90	105
85°	22	24	28	30	30	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1178.7	1178.7	1178.7	1178.7	1178.7
2.5°	1176.0	1180.1	1169.0	1177.3	1180.1
5°	1171.8	1173.2	1157.9	1159.3	1159.3
7.5°	1164.9	1162.1	1137.2	1130.2	1128.9
10°	1155.2	1146.9	1110.9	1097.0	1092.8
12.5°	1142.7	1127.5	1081.8	1062.4	1054.1
15°	1126.1	1101.2	1048.5	1022.2	1011.1
17.5°	1101.2	1069.3	1013.9	980.7	968.2
20°	1077.6	1034.7	975.1	933.6	922.5
22.5°	1044.4	998.7	930.8	886.5	872.6
25°	1012.5	958.5	885.1	838.0	822.8
27.5°	977.9	916.9	838.0	788.1	768.7
30°	937.7	872.6	790.9	738.3	717.5
32.5°	898.9	829.7	742.4	684.2	662.1
35°	858.8	781.2	693.9	631.6	609.4
37.5°	817.2	735.5	639.9	579.0	549.9
40°	775.7	689.8	591.4	522.2	497.3
42.5°	732.7	642.7	541.6	469.6	437.7
45°	684.2	595.6	490.3	414.1	383.7
47.5°	637.1	549.9	443.2	360.1	332.4
50°	587.3	501.4	393.4	313.0	295.0
52.5°	537.4	451.5	344.9	277.0	268.7
55°	487.6	405.8	297.8	250.7	243.8
57.5°	432.2	358.7	256.2	227.2	221.6
60°	376.7	307.5	220.2	205.0	200.8
62.5°	322.7	263.2	195.3	182.8	180.1
65°	271.5	218.8	171.8	162.1	160.7
67.5°	221.6	180.1	149.6	144.1	141.3
70°	171.8	144.1	128.8	126.0	123.3
72.5°	127.4	116.3	109.4	108.0	106.7
75°	88.6	92.8	90.0	90.0	90.0
77.5°	70.6	72.0	73.4	74.8	73.4
80°	51.2	55.4	56.8	59.6	58.2
82.5°	36.0	38.8	42.9	44.3	45.7
85°	22.2	23.5	27.7	30.5	30.5
87.5°	9.7	11.1	13.9	16.6	18.0
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	18.49	19.99	18.86	20.30	20.62	15.06	16.55	15.42	16.87	17.18
	3H	19.70	21.04	20.07	21.37	21.73	16.75	18.10	17.13	18.42	18.79
	4H	20.00	21.26	20.40	21.61	21.99	17.43	18.69	17.83	19.04	19.42
	6H	20.20	21.37	20.62	21.74	22.13	17.98	19.14	18.39	19.51	19.90
	8H	20.26	21.37	20.69	21.76	22.16	18.20	19.30	18.62	19.69	20.09
	12H	20.30	21.36	20.73	21.74	22.17	18.37	19.43	18.80	19.81	20.24
4H	2H	18.63	19.89	19.03	20.24	20.62	15.72	16.98	16.12	17.32	17.70
	3H	20.04	21.08	20.45	21.48	21.88	17.63	18.67	18.04	19.07	19.47
	4H	20.46	21.40	20.89	21.82	22.26	18.43	19.37	18.86	19.78	20.22
	6H	20.79	21.60	21.24	22.05	22.51	19.12	19.93	19.57	20.38	20.84
	8H	20.88	21.65	21.35	22.09	22.56	19.39	20.15	19.85	20.60	21.07
	12H	20.95	21.64	21.44	22.11	22.59	19.62	20.30	20.10	20.78	21.25
8H	4H	20.59	21.35	21.05	21.80	22.26	18.74	19.51	19.21	19.95	20.42
	6H	21.01	21.64	21.51	22.13	22.61	19.57	20.20	20.07	20.70	21.17
	8H	21.17	21.73	21.68	22.24	22.73	19.94	20.51	20.45	21.02	21.50
	12H	21.29	21.80	21.80	22.29	22.85	20.27	20.77	20.78	21.27	21.83
12H	4H	20.59	21.28	21.08	21.76	22.23	18.77	19.45	19.25	19.93	20.40
	6H	21.03	21.60	21.55	22.11	22.60	19.63	20.20	20.15	20.71	21.20
	8H	21.24	21.74	21.75	22.24	22.80	20.06	20.57	20.57	21.06	21.62