

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: P998431

Luminaire Tested: SA2XXDIP-B485D1080UB50-4F0-XX-W2A-D4

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P998431
REPORT IS A COMBINATION OF REPORTS P984174 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B485D1080UB50-4F0-XX-W2A-D4
Description: Define 2 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

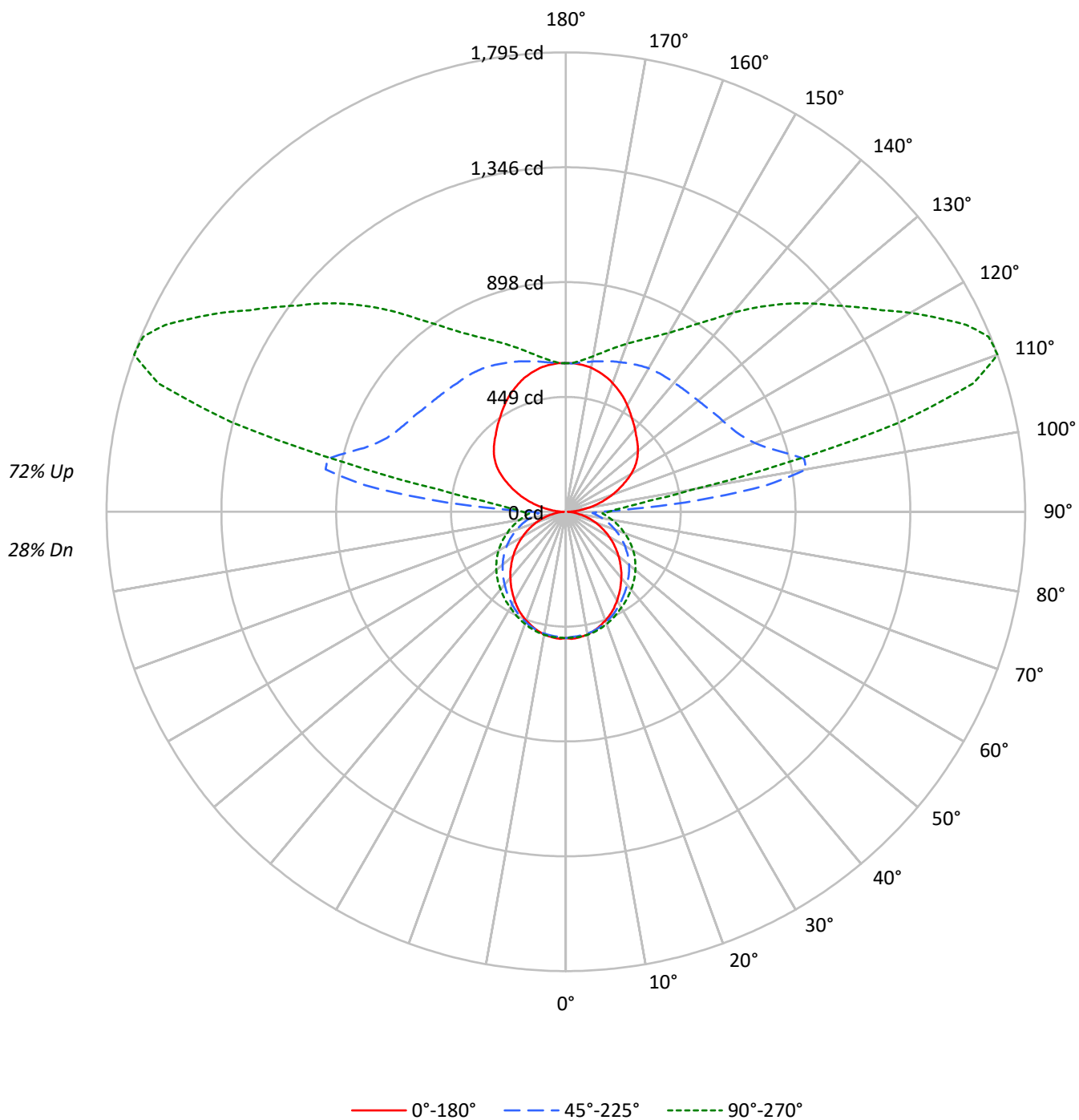
Lumens per Lamp: N/A
Luminaire Lumens: 5933.6 lumens
Efficiency: N/A
Efficacy: 100.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 59
Input Voltage (V):
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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	102	102	102	102	91	91	91	91	71	71	71	53	53	53	36	36	36
1	92	88	83	80	82	78	75	72	61	59	56	45	44	42	31	30	29
2	83	76	70	64	74	68	63	58	53	49	46	39	37	35	26	25	24
3	76	66	59	53	67	59	53	48	46	42	38	34	31	29	23	21	20
4	69	58	51	45	61	52	46	40	41	36	32	30	27	24	20	18	17
5	63	52	44	38	56	46	40	34	36	31	28	27	24	21	18	16	14
6	58	46	38	32	52	42	35	30	33	28	24	24	21	18	17	14	12
7	54	42	34	28	48	37	31	26	29	24	21	22	18	16	15	13	11
8	50	37	30	25	44	34	27	22	27	22	18	20	17	14	14	11	10
9	46	34	27	22	41	31	24	20	24	19	16	18	15	12	13	10	9
10	43	31	24	19	38	28	22	18	22	18	14	17	13	11	12	9	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7812	7812	7812
5°	7847	7478	7437
10°	7795	7220	7114
15°	7684	6952	6784
20°	7545	6669	6470
25°	7408	6401	6186
30°	7216	6127	5904
35°	7023	5863	5698
40°	6819	5635	5491
45°	6622	5428	5312
50°	6414	5238	5135
55°	6193	5035	4955
60°	5926	4824	4767
65°	5645	4580	4548
70°	5327	4319	4315
75°	4923	4060	4092
80°	4279	3789	3864
85°	3630	3534	3666

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6622 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.8	0.8
10°-20°	134.2	2.3
20°-30°	203.3	3.4
30°-40°	247.6	4.2
40°-50°	266.4	4.5
50°-60°	258.7	4.4
60°-70°	225.9	3.8
70°-80°	173.9	2.9
80°-90°	120.1	2.0
90°-100°	315.6	5.3
100°-110°	854.2	14.4
110°-120°	874.9	14.7
120°-130°	709.2	12.0
130°-140°	561.6	9.5
140°-150°	418.9	7.1
150°-160°	293.4	4.9
160°-170°	172.8	2.9
170°-180°	56.2	0.9
0°-30°	384.3	6.5
0°-40°	631.8	10.6
0°-60°	1156.9	19.5
0°-90°	1676.8	28.3
90°-120°	2044.7	34.5
90°-150°	3734.4	62.9
90°-180°	4257.0	71.7
0°-180°	5933.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	494	494	494	494	494	
5°	495	493	488	493	492	47
15°	472	474	474	480	479	133
25°	429	434	441	449	451	197
35°	370	382	396	411	416	231
45°	303	323	348	370	377	234
55°	232	258	295	321	330	208
65°	159	194	236	265	275	158
75°	88	128	174	204	214	93
85°	26	70	116	146	156	27
90°	8	64	132	159	168	8
95°	45	135	520	275	245	45
105°	140	230	889	1565	1352	149
115°	243	314	735	1493	1728	241
125°	336	398	690	1201	1393	299
135°	394	470	665	995	1142	304
145°	449	516	654	816	896	282
155°	510	551	635	718	747	235
165°	556	573	608	645	655	157
175°	579	580	585	592	590	55
180°	580	580	580	580	580	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	493.5	493.5	493.5	493.5	493.5
2.5°	497.1	494.9	489.9	493.5	492.1
5°	494.9	492.8	488.5	492.8	492.1
7.5°	491.3	489.9	486.3	491.3	490.6
10°	487.1	485.6	483.5	489.2	488.5
12.5°	479.9	480.6	479.2	484.9	484.2
15°	472.0	473.5	473.5	479.9	479.2
17.5°	462.0	464.9	467.0	473.5	473.5
20°	452.0	455.6	458.4	466.3	466.3
22.5°	441.3	445.6	449.9	457.7	459.2
25°	429.1	434.1	440.6	449.2	451.3
27.5°	414.8	422.7	429.8	440.6	442.0
30°	400.5	409.8	419.1	430.6	432.7
32.5°	384.8	395.5	407.0	420.5	424.8
35°	369.8	381.9	395.5	411.2	416.3
37.5°	353.3	366.9	384.1	401.2	406.2
40°	336.9	352.6	371.9	390.5	396.9
42.5°	321.1	336.9	359.7	380.5	386.9
45°	303.2	322.6	347.6	369.8	376.9
47.5°	286.1	306.8	335.4	358.3	366.2
50°	268.2	290.4	322.6	346.9	354.7
52.5°	251.0	274.6	309.0	334.0	342.6
55°	232.4	258.2	295.4	321.1	330.4
57.5°	214.6	243.2	280.4	308.3	317.6
60°	195.3	226.0	266.8	294.0	304.0
62.5°	178.1	210.3	251.0	280.4	289.7
65°	158.8	193.8	236.0	265.3	274.6
67.5°	141.6	178.1	221.0	250.3	260.3
70°	123.0	160.2	204.5	235.3	243.9
72.5°	105.9	144.5	189.5	219.6	230.3
75°	88.0	128.0	173.8	204.5	213.8
77.5°	70.8	112.3	158.8	189.5	199.5
80°	53.6	97.3	143.8	173.8	183.8
82.5°	39.3	82.2	129.5	159.5	168.8
85°	25.7	70.1	115.9	145.9	155.9
87.5°	15.7	58.6	104.4	133.7	143.0
90°	8.3	63.6	132.4	159.2	168.4
92.5°	23.1	97.4	259.9	195.2	192.5
95°	44.8	135.3	519.8	274.6	245.3
97.5°	63.0	162.5	790.5	435.2	325.5
100°	91.0	186.6	953.3	758.2	505.5
102.5°	115.9	208.8	953.9	1208.6	879.2
105°	139.8	229.7	888.6	1565.0	1352.4
107.5°	166.6	250.6	827.8	1690.4	1669.3
110°	192.7	272.2	785.6	1663.6	1795.3

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	217.2	293.4	756.0	1586.5	1788.1
115°	242.9	313.8	735.0	1492.6	1727.6
117.5°	268.9	334.9	721.0	1403.4	1639.3
120°	293.4	355.5	708.9	1322.2	1555.0
122.5°	316.9	377.4	700.2	1258.6	1466.0
125°	336.3	397.6	689.6	1200.6	1392.9
127.5°	353.0	417.6	681.9	1149.7	1323.5
130°	367.5	436.0	675.4	1099.0	1265.4
132.5°	380.9	453.9	670.0	1046.4	1205.7
135°	393.6	469.6	665.4	995.2	1141.5
137.5°	405.9	482.9	661.8	943.3	1078.9
140°	420.4	494.5	657.8	897.0	1014.0
142.5°	434.9	504.6	656.4	853.0	949.9
145°	448.7	515.7	654.1	816.4	896.4
147.5°	464.4	524.6	650.8	784.3	847.9
150°	480.0	533.6	647.4	759.0	807.0
152.5°	495.6	542.5	641.8	738.4	774.7
155°	510.1	550.8	635.1	718.3	746.8
157.5°	522.4	557.6	628.4	699.3	722.2
160°	534.7	564.2	621.8	680.3	698.8
162.5°	547.0	569.3	616.2	662.5	676.4
165°	555.9	572.6	608.4	645.2	655.2
167.5°	563.7	576.0	601.7	629.6	635.1
170°	571.5	577.6	596.1	615.0	617.3
172.5°	576.0	579.4	589.4	602.2	602.8
175°	579.3	579.9	584.9	592.2	590.5
177.5°	581.6	580.5	580.5	584.9	581.6
180°	580.5	580.5	580.5	580.5	580.5

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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	9.92	10.64	11.04	11.76	13.31	13.00	13.72	14.11	14.83	16.38
	3H	11.37	12.02	12.50	13.15	14.71	15.58	16.23	16.70	17.35	18.91
	4H	11.84	12.46	12.98	13.59	15.15	16.82	17.44	17.96	18.57	20.13
	6H	12.12	12.69	13.26	13.82	15.40	18.11	18.68	19.26	19.81	21.39
	8H	12.18	12.72	13.32	13.86	15.43	18.77	19.31	19.91	20.45	22.03
	12H	12.19	12.70	13.34	13.84	15.44	19.49	20.01	20.64	21.14	22.74
4H	2H	10.96	11.58	12.10	12.70	14.27	13.31	13.93	14.45	15.05	16.62
	3H	12.65	13.17	13.80	14.32	15.91	16.09	16.61	17.24	17.76	19.34
	4H	13.27	13.75	14.42	14.89	16.49	17.50	17.98	18.65	19.12	20.72
	6H	13.68	14.09	14.83	15.26	16.85	18.96	19.38	20.12	20.54	22.13
	8H	13.78	14.17	14.94	15.32	16.93	19.72	20.11	20.87	21.26	22.87
	12H	13.82	14.17	14.99	15.34	16.95	20.54	20.89	21.71	22.06	23.67
8H	4H	14.05	14.44	15.20	15.59	17.20	17.64	18.02	18.79	19.18	20.79
	6H	14.68	15.00	15.85	16.20	17.80	19.26	19.58	20.43	20.78	22.38
	8H	14.90	15.18	16.08	16.35	17.98	20.15	20.43	21.33	21.60	23.23
	12H	15.02	15.27	16.21	16.45	18.10	21.14	21.39	22.32	22.56	24.21
12H	4H	14.24	14.59	15.41	15.76	17.37	17.60	17.96	18.77	19.12	20.73
	6H	15.01	15.29	16.19	16.47	18.09	19.28	19.57	20.46	20.74	22.36
	8H	15.31	15.56	16.49	16.73	18.38	20.20	20.46	21.39	21.63	23.28