

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: P997822

Luminaire Tested: SA2XXDIP-B1005D1080UB35-4F0-XX-W2A-D4

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P997822
REPORT IS A COMBINATION OF REPORTS P983556 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B1005D1080UB35-4F0-XX-W2A-D4
Description: Define 2 Direct/Indirect Pendant with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

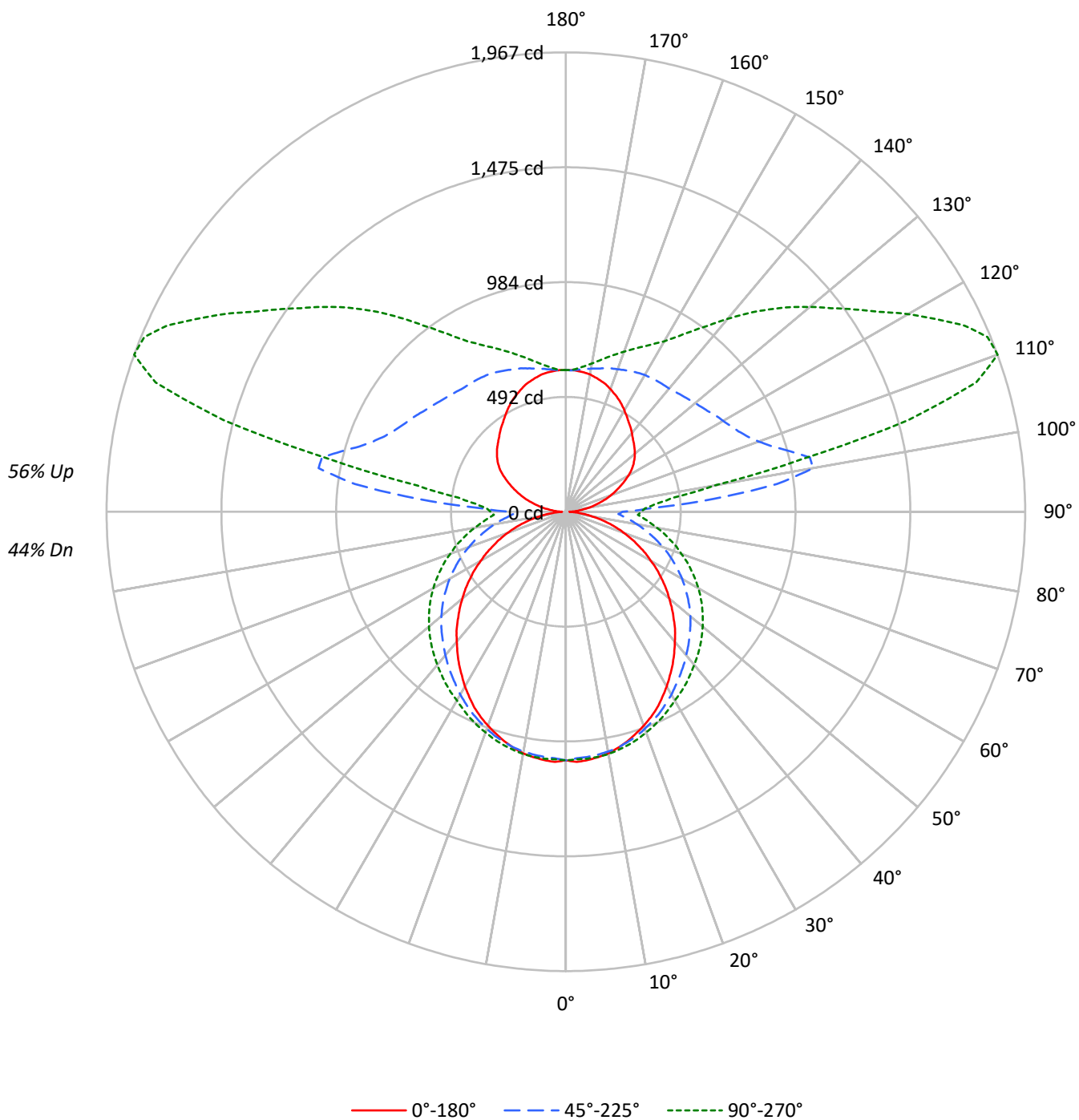
Lumens per Lamp: N/A
Luminaire Lumens: 8291.9 lumens
Efficiency: N/A
Efficacy: 86.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 96.3
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	106	106	106	106	97	97	97	97	80	80	80	64	64	64	50	50	50
1	95	90	86	82	87	82	79	75	68	65	63	55	53	51	42	41	40
2	86	78	71	66	78	71	66	61	59	55	51	47	44	41	36	34	32
3	78	68	60	54	71	62	56	50	51	46	42	41	38	34	32	29	27
4	71	60	52	45	65	55	48	42	45	40	36	36	32	29	28	25	23
5	65	53	45	39	59	49	41	36	40	35	30	33	28	25	25	22	20
6	60	48	39	33	54	44	36	31	36	30	26	29	25	22	23	20	17
7	55	43	35	29	50	39	32	27	33	27	23	27	22	19	21	18	15
8	51	39	31	25	47	36	29	24	30	24	20	24	20	17	19	16	14
9	48	35	28	22	43	32	26	21	27	22	18	22	18	15	18	14	12
10	44	32	25	20	41	30	23	19	25	20	16	20	16	14	16	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16847	16847	16847
5°	16924	16128	16037
10°	16809	15569	15342
15°	16572	14992	14631
20°	16273	14385	13954
25°	15978	13805	13340
30°	15564	13214	12733
35°	15146	12644	12286
40°	14704	12153	11844
45°	14283	11705	11458
50°	13832	11295	11076
55°	13358	10856	10688
60°	12778	10401	10279
65°	12172	9879	9810
70°	11489	9316	9305
75°	10612	8755	8828
80°	9237	8169	8334
85°	7840	7620	7908

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 14283 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.9	1.2
10°-20°	289.4	3.5
20°-30°	438.5	5.3
30°-40°	533.9	6.4
40°-50°	574.5	6.9
50°-60°	557.9	6.7
60°-70°	487.2	5.9
70°-80°	375.0	4.5
80°-90°	255.0	3.1
90°-100°	419.0	5.1
100°-110°	957.4	11.5
110°-120°	956.9	11.5
120°-130°	764.7	9.2
130°-140°	596.7	7.2
140°-150°	439.3	5.3
150°-160°	306.5	3.7
160°-170°	180.5	2.2
170°-180°	58.7	0.7
0°-30°	828.7	10.0
0°-40°	1362.6	16.4
0°-60°	2495.0	30.1
0°-90°	3612.2	43.6
90°-120°	2333.4	28.1
90°-150°	4134.1	49.9
90°-180°	4680.0	56.4
0°-180°	8291.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1064	1064	1064	1064	1064	
5°	1067	1063	1054	1063	1061	101
15°	1018	1021	1021	1035	1034	287
25°	926	936	950	969	973	426
35°	798	824	853	887	898	498
45°	654	696	750	798	813	505
55°	501	557	637	693	713	448
65°	342	418	509	572	592	340
75°	190	276	375	441	461	201
85°	56	151	250	315	336	59
90°	17	121	243	303	322	13
95°	53	185	634	409	387	52
105°	150	267	997	1731	1518	160
115°	257	340	815	1631	1885	254
125°	353	417	747	1303	1511	314
135°	412	491	704	1065	1224	319
145°	469	539	683	858	945	294
155°	533	575	663	750	780	245
165°	581	598	635	674	684	164
175°	605	606	611	618	617	57
180°	606	606	606	606	606	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1064.3	1064.3	1064.3	1064.3	1064.3
2.5°	1072.0	1067.4	1056.6	1064.3	1061.2
5°	1067.4	1062.8	1053.5	1062.8	1061.2
7.5°	1059.7	1056.6	1048.9	1059.7	1058.1
10°	1050.4	1047.3	1042.7	1055.0	1053.5
12.5°	1035.0	1036.5	1033.5	1045.8	1044.2
15°	1018.0	1021.1	1021.1	1035.0	1033.5
17.5°	996.4	1002.6	1007.2	1021.1	1021.1
20°	974.8	982.6	988.7	1005.7	1005.7
22.5°	951.7	961.0	970.2	987.2	990.3
25°	925.5	936.3	950.2	968.7	973.3
27.5°	894.6	911.6	927.0	950.2	953.2
30°	863.8	883.8	903.9	928.6	933.2
32.5°	829.8	853.0	877.7	907.0	916.2
35°	797.5	823.7	853.0	886.9	897.7
37.5°	762.0	791.3	828.3	865.3	876.1
40°	726.5	760.4	802.1	842.2	856.1
42.5°	692.6	726.5	775.9	820.6	834.5
45°	654.0	695.7	749.6	797.5	812.9
47.5°	617.0	661.7	723.4	772.8	789.7
50°	578.4	626.2	695.7	748.1	765.1
52.5°	541.4	592.3	666.3	720.3	738.8
55°	501.3	556.8	637.0	692.6	712.6
57.5°	462.7	524.4	604.6	664.8	684.9
60°	421.1	487.4	575.3	634.0	655.5
62.5°	384.1	453.5	541.4	604.6	624.7
65°	342.4	418.0	509.0	572.3	592.3
67.5°	305.4	384.1	476.6	539.9	561.5
70°	265.3	345.5	441.1	507.5	526.0
72.5°	228.3	311.6	408.8	473.5	496.7
75°	189.7	276.1	374.8	441.1	461.2
77.5°	152.7	242.2	342.4	408.8	430.3
80°	115.7	209.8	310.0	374.8	396.4
82.5°	84.8	177.4	279.2	344.0	364.0
85°	55.5	151.2	249.9	314.7	336.3
87.5°	33.9	126.5	225.2	288.4	308.5
90°	16.6	120.6	243.2	303.2	322.3
92.5°	31.4	151.0	369.3	332.6	339.5
95°	53.1	185.1	634.4	408.6	387.4
97.5°	71.4	209.4	911.6	570.0	464.9
100°	100.6	230.0	1075.3	901.0	645.7
102.5°	125.9	249.1	1070.3	1364.9	1029.7
105°	149.9	267.0	996.6	1730.8	1517.6
107.5°	177.9	284.9	927.5	1855.6	1842.2
110°	204.4	303.4	878.6	1821.1	1967.4

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	230.1	322.3	842.2	1735.0	1954.3
115°	256.9	339.7	815.4	1630.6	1884.8
117.5°	283.3	358.6	795.3	1531.8	1786.2
120°	308.9	376.9	777.9	1440.8	1692.7
122.5°	333.4	397.4	763.9	1368.8	1592.5
125°	352.9	417.0	747.3	1302.6	1510.6
127.5°	370.4	437.0	734.6	1243.0	1431.7
130°	385.5	456.2	723.0	1184.4	1364.6
132.5°	399.5	474.8	712.6	1124.1	1296.7
135°	411.9	491.2	703.7	1065.0	1224.1
137.5°	424.7	505.2	696.0	1005.2	1152.4
140°	439.9	516.5	688.7	951.2	1078.2
142.5°	455.0	527.0	685.6	900.5	1005.6
145°	468.7	538.6	683.2	857.5	945.1
147.5°	485.0	548.0	679.7	820.0	888.8
150°	501.3	557.3	676.2	792.8	843.0
152.5°	517.7	566.6	670.4	771.2	809.1
155°	532.8	575.4	663.4	750.3	780.0
157.5°	545.6	582.4	656.4	730.4	754.3
160°	558.5	589.4	649.4	710.6	729.9
162.5°	571.3	594.6	643.6	692.0	706.5
165°	580.6	598.1	635.4	673.9	684.4
167.5°	588.8	601.6	628.4	657.6	663.4
170°	596.9	603.4	622.6	642.4	644.7
172.5°	601.6	605.1	615.6	629.0	629.6
175°	605.1	605.7	610.9	618.5	616.8
177.5°	607.4	606.3	606.3	610.9	607.4
180°	606.3	606.3	606.3	606.3	606.3

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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	14.40	15.25	15.40	16.27	17.63	17.48	18.33	18.48	19.35	20.70
	3H	15.86	16.63	16.87	17.66	19.03	20.07	20.83	21.08	21.86	23.24
	4H	16.34	17.07	17.36	18.10	19.48	21.32	22.05	22.34	23.08	24.46
	6H	16.62	17.30	17.65	18.33	19.73	22.62	23.29	23.65	24.32	25.72
	8H	16.68	17.32	17.72	18.38	19.77	23.27	23.92	24.31	24.97	26.36
	12H	16.70	17.31	17.74	18.35	19.77	24.00	24.61	25.04	25.66	27.08
4H	2H	15.45	16.18	16.48	17.21	18.59	17.81	18.54	18.84	19.57	20.95
	3H	17.16	17.78	18.20	18.83	20.23	20.60	21.22	21.63	22.27	23.67
	4H	17.78	18.35	18.82	19.40	20.82	22.01	22.58	23.06	23.63	25.05
	6H	18.20	18.69	19.25	19.76	21.17	23.48	23.98	24.53	25.05	26.46
	8H	18.30	18.77	19.36	19.83	21.26	24.24	24.70	25.29	25.77	27.20
	12H	18.35	18.77	19.42	19.85	21.28	25.07	25.49	26.14	26.57	28.00
8H	4H	18.57	19.03	19.62	20.10	21.53	22.16	22.62	23.21	23.69	25.12
	6H	19.20	19.59	20.28	20.70	22.12	23.79	24.18	24.86	25.28	26.71
	8H	19.42	19.77	20.51	20.86	22.30	24.68	25.02	25.76	26.11	27.55
	12H	19.56	19.86	20.65	20.95	22.43	25.67	25.97	26.76	27.06	28.54
12H	4H	18.77	19.19	19.84	20.27	21.70	22.13	22.55	23.20	23.63	25.07
	6H	19.54	19.88	20.62	20.97	22.42	23.81	24.16	24.89	25.24	26.69
	8H	19.84	20.15	20.93	21.23	22.71	24.74	25.04	25.83	26.13	27.61