

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: P997857

Luminaire Tested: SA2XXDIP-B1005D330UB2750-4F0-XX-W2A-D_3500K

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P997857
REPORT IS A COMBINATION OF REPORTS P983594 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B1005D330UB2750-4F0-XX-W2A-D_3500K
Description: Define 2 Direct/Indirect Pendant with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

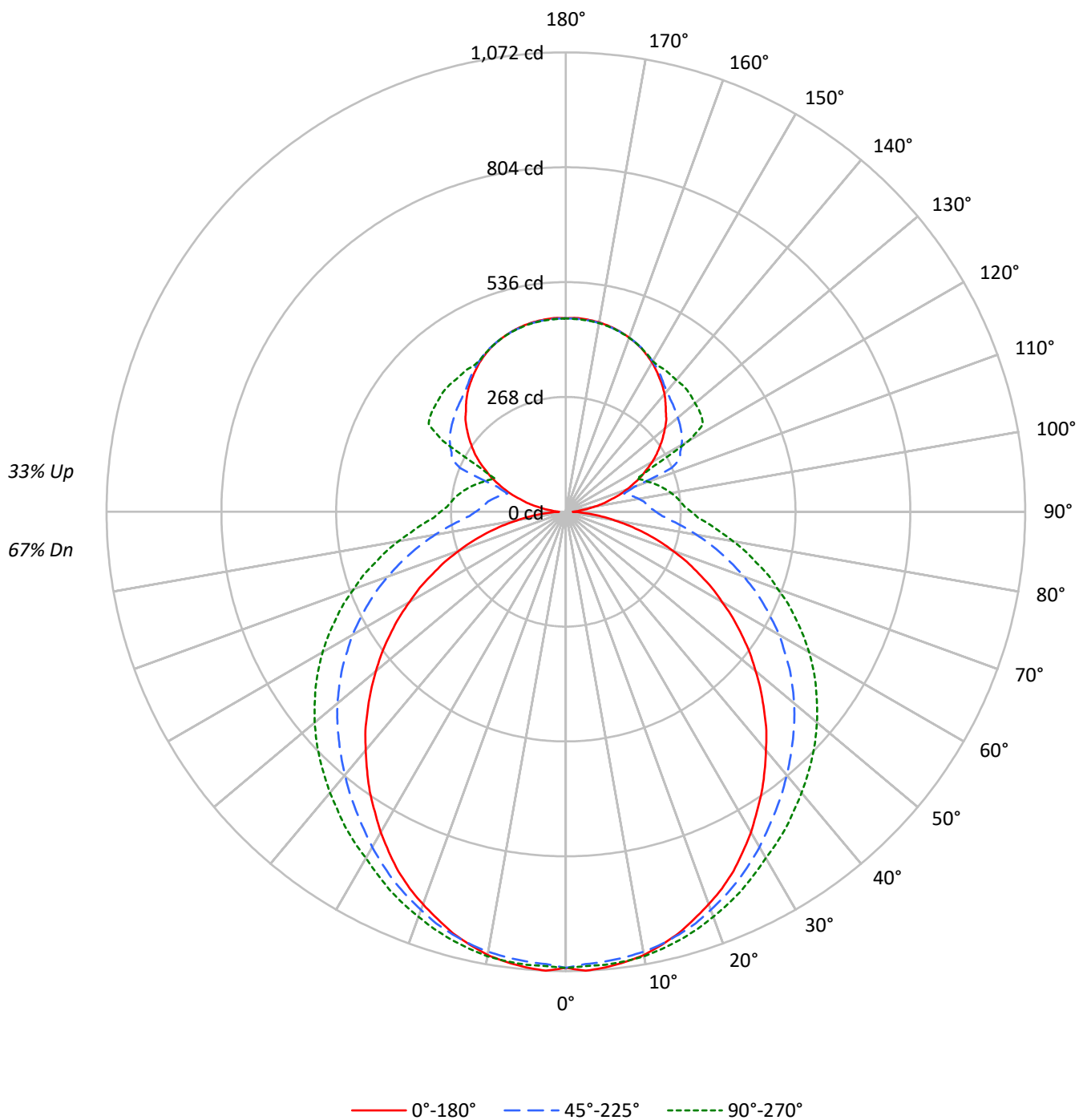
Lumens per Lamp: N/A
Luminaire Lumens: 5385.0 lumens
Efficiency: N/A
Efficacy: 76.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 70.6
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			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	67		
1	100	94	90	85	93	89	85	81	78	75	72	69	67	64	60	58	57	52		
2	90	81	74	68	84	77	70	65	68	63	58	59	56	52	52	49	46	42		
3	82	71	62	56	76	67	59	53	59	53	48	52	47	43	45	42	38	35		
4	74	62	53	47	69	59	51	45	52	46	40	46	41	36	40	36	33	29		
5	68	55	46	40	64	52	44	38	46	40	35	41	36	31	36	32	28	25		
6	63	50	41	34	59	47	39	33	42	35	30	37	31	27	33	28	25	22		
7	58	45	36	30	54	42	34	29	38	31	26	34	28	24	30	25	22	19		
8	54	41	32	26	50	38	31	25	34	28	23	31	25	21	27	23	19	17		
9	50	37	29	24	47	35	28	23	32	25	21	28	23	19	25	21	17	15		
10	47	34	26	21	44	32	25	20	29	23	19	26	21	17	23	19	16	14		

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	1.9
10°-20°	289.4	5.4
20°-30°	438.5	8.1
30°-40°	533.9	9.9
40°-50°	574.5	10.7
50°-60°	557.9	10.4
60°-70°	487.2	9.0
70°-80°	375.0	7.0
80°-90°	251.9	4.7
90°-100°	188.1	3.5
100°-110°	182.0	3.4
110°-120°	230.7	4.3
120°-130°	290.6	5.4
130°-140°	278.8	5.2
140°-150°	244.2	4.5
150°-160°	193.7	3.6
160°-170°	124.8	2.3
170°-180°	43.0	0.8
0°-30°	828.7	15.4
0°-40°	1362.6	25.3
0°-60°	2495.0	46.3
0°-90°	3609.1	67.0
90°-120°	600.8	11.2
90°-150°	1414.5	26.3
90°-180°	1776.0	33.0
0°-180°	5385.0	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°	16	109	210	274	293	12
95°	34	95	190	250	268	35
105°	107	162	153	210	228	115
115°	194	216	294	189	183	190
125°	269	273	328	372	387	240
135°	330	335	354	389	401	255
145°	381	381	386	398	404	239
155°	420	417	421	423	420	193
165°	442	440	441	444	441	125
175°	452	450	451	453	450	43
180°	451	451	451	451	451	

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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°	15.7	108.8	210.1	273.5	292.6
92.5°	22.1	102.5	197.5	258.4	277.2
95°	33.5	95.3	190.1	250.4	268.5
97.5°	49.0	88.5	183.3	241.3	260.2
100°	68.6	81.0	172.8	232.5	250.2
102.5°	88.7	138.9	162.7	221.9	239.7
105°	107.0	161.5	152.6	210.1	228.4
107.5°	130.2	175.3	142.5	198.5	216.8
110°	150.9	188.5	169.8	186.5	204.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	171.8	202.3	267.7	176.3	194.2
115°	194.0	216.4	294.0	189.1	182.6
117.5°	211.7	230.6	300.9	300.4	230.3
120°	233.2	244.3	311.9	359.0	331.9
122.5°	251.5	258.3	321.9	365.5	379.7
125°	268.6	272.9	328.4	372.4	387.2
127.5°	285.6	288.6	335.2	377.0	391.2
130°	301.6	305.2	341.2	381.9	393.9
132.5°	317.9	320.6	347.4	385.8	397.8
135°	330.1	335.3	353.7	389.4	401.0
137.5°	344.4	348.3	359.4	392.0	401.8
140°	358.5	359.6	366.3	393.9	401.5
142.5°	370.2	371.0	375.3	396.4	402.4
145°	381.1	380.8	386.4	397.9	404.0
147.5°	391.9	390.9	396.5	399.6	403.0
150°	402.4	400.1	405.3	407.3	405.6
152.5°	411.2	408.6	413.5	415.4	413.1
155°	419.7	416.7	420.7	422.6	420.0
157.5°	426.5	423.9	426.9	429.1	426.5
160°	432.4	430.5	432.4	434.4	432.1
162.5°	437.6	435.7	437.3	439.6	436.7
165°	442.2	440.2	441.2	443.5	441.2
167.5°	445.8	443.8	444.8	447.1	444.2
170°	448.7	446.8	447.4	449.7	446.8
172.5°	450.7	448.7	449.4	451.7	448.7
175°	452.3	450.0	450.7	453.0	449.7
177.5°	453.0	450.7	451.0	453.3	450.4
180°	451.4	451.4	451.4	451.4	451.4

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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	16.43	17.54	17.21	18.36	19.36	19.50	20.62	20.29	21.43	22.43
	3H	17.90	18.92	18.70	19.74	20.77	22.11	23.12	22.90	23.94	24.97
	4H	18.39	19.35	19.20	20.18	21.22	23.37	24.33	24.18	25.16	26.20
	6H	18.69	19.58	19.51	20.42	21.47	24.68	25.57	25.51	26.41	27.47
	8H	18.75	19.61	19.59	20.46	21.52	25.35	26.20	26.18	27.06	28.11
	12H	18.78	19.59	19.62	20.45	21.53	26.08	26.90	26.92	27.75	28.83
4H	2H	17.50	18.46	18.32	19.30	20.34	19.86	20.82	20.68	21.65	22.69
	3H	19.23	20.05	20.06	20.91	21.97	22.67	23.49	23.50	24.35	25.41
	4H	19.86	20.61	20.70	21.48	22.56	24.09	24.85	24.94	25.71	26.79
	6H	20.29	20.95	21.15	21.84	22.92	25.58	26.24	26.43	27.12	28.21
	8H	20.41	21.03	21.26	21.91	23.01	26.34	26.96	27.20	27.84	28.94
	12H	20.46	21.03	21.34	21.93	23.03	27.18	27.75	28.06	28.65	29.75
8H	4H	20.67	21.29	21.53	22.17	23.27	24.26	24.88	25.12	25.76	26.86
	6H	21.31	21.84	22.20	22.76	23.86	25.90	26.42	26.78	27.34	28.44
	8H	21.54	22.01	22.44	22.93	24.04	26.79	27.26	27.69	28.18	29.29
	12H	21.69	22.10	22.59	23.01	24.18	27.80	28.22	28.70	29.13	30.29
12H	4H	20.88	21.45	21.76	22.35	23.45	24.25	24.81	25.13	25.71	26.82
	6H	21.65	22.12	22.55	23.04	24.15	25.93	26.40	26.82	27.31	28.43
	8H	21.97	22.39	22.87	23.30	24.46	26.87	27.29	27.77	28.19	29.36