

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: P998763

Luminaire Tested: SA2XXDIP-B675D330UB30-4F0-XX-W2A-F1

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P998763
REPORT IS A COMBINATION OF REPORTS P984509 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B675D330UB30-4F0-XX-W2A-F1
Description: Define 2 Direct/Indirect Pendant with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

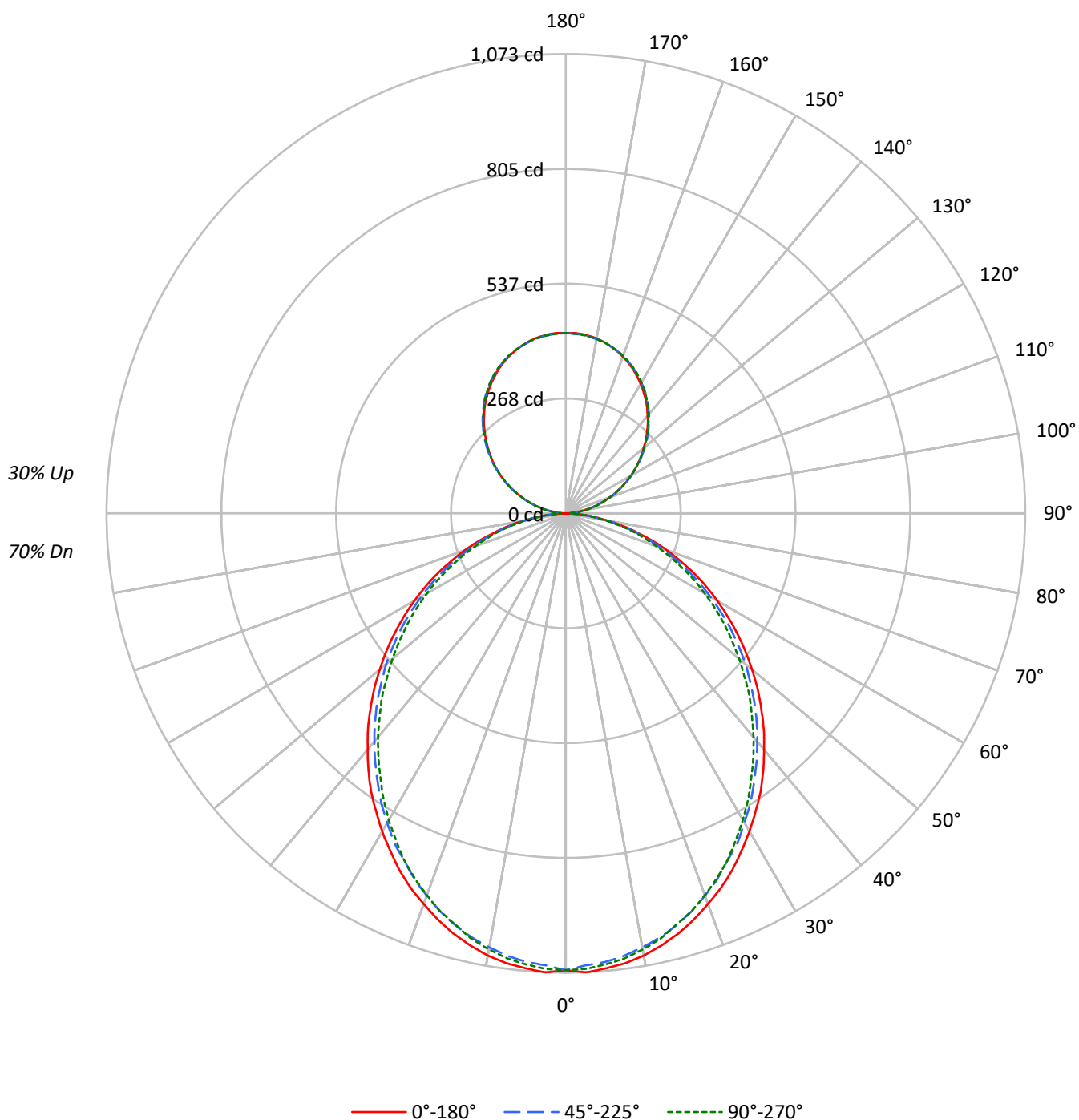
Lumens per Lamp: N/A
Luminaire Lumens: 3894.0 lumens
Efficiency: N/A
Efficacy: 86.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 45.2
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	112	112	112	112	106	106	106	106	94	94	94	84	84	84	74	74	74
1	102	98	94	90	96	93	89	86	83	80	78	74	72	70	66	64	63
2	93	85	79	74	88	81	75	71	73	68	64	65	62	58	58	55	53
3	85	75	68	61	80	71	65	59	64	59	54	57	53	50	51	48	45
4	78	67	58	52	73	63	56	50	57	51	46	51	46	43	46	42	39
5	72	59	51	45	67	57	49	43	51	45	40	46	41	37	41	37	34
6	66	54	45	39	62	51	43	38	46	40	35	42	36	32	38	33	30
7	61	48	40	34	58	46	39	33	42	36	31	38	33	29	34	30	27
8	57	44	36	31	54	42	35	30	38	32	28	35	30	26	32	27	24
9	53	40	33	27	50	39	31	27	35	29	25	32	27	23	29	25	22
10	50	37	30	25	47	36	29	24	33	27	23	30	25	21	27	23	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16891	16891	16891
5°	16919	16102	15987
10°	16782	15368	15062
15°	16536	14627	14090
20°	16204	13824	13168
25°	15873	12984	12249
30°	15456	12195	11284
35°	15064	11362	10336
40°	14578	10541	9441
45°	14096	9725	8563
50°	13569	8896	7650
55°	13014	8010	6787
60°	12393	7049	5890
65°	11710	6075	4946
70°	10844	5005	3993
75°	9644	3859	3084
80°	8191	2622	1985
85°	5947	1220	844

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 14096 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.4	2.6
10°-20°	282.6	7.3
20°-30°	415.3	10.7
30°-40°	482.3	12.4
40°-50°	481.7	12.4
50°-60°	420.0	10.8
60°-70°	310.5	8.0
70°-80°	175.7	4.5
80°-90°	47.6	1.2
90°-100°	26.1	0.7
100°-110°	82.8	2.1
110°-120°	141.8	3.6
120°-130°	186.4	4.8
130°-140°	209.3	5.4
140°-150°	205.2	5.3
150°-160°	172.1	4.4
160°-170°	114.2	2.9
170°-180°	39.9	1.0
0°-30°	798.3	20.5
0°-40°	1280.6	32.9
0°-60°	2182.4	56.0
0°-90°	2716.2	69.8
90°-120°	250.7	6.4
90°-150°	851.6	21.9
90°-180°	1178.0	30.3
0°-180°	3894.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1067	1067	1067	1067	1067	
5°	1067	1063	1052	1060	1058	101
15°	1016	1010	996	1000	995	286
25°	919	911	894	896	894	423
35°	793	783	766	760	755	495
45°	645	638	623	612	608	498
55°	488	482	470	458	452	437
65°	329	323	313	304	299	326
75°	172	170	165	159	161	184
85°	42	41	40	37	36	47
90°	0	5	12	12	12	4
95°	18	22	23	23	22	21
105°	76	78	78	79	79	81
115°	142	144	144	143	142	141
125°	207	210	209	208	208	185
135°	268	272	272	272	271	207
145°	325	327	330	330	328	203
155°	372	373	374	375	374	171
165°	404	404	404	406	405	114
175°	421	420	419	421	419	40
180°	421	421	421	421	421	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1067.1	1067.1	1067.1	1067.1	1067.1
2.5°	1073.3	1068.2	1056.9	1067.1	1065.1
5°	1067.1	1063.0	1051.8	1060.0	1057.9
7.5°	1060.0	1053.8	1042.5	1050.7	1048.7
10°	1048.7	1041.5	1029.2	1037.4	1034.3
12.5°	1033.3	1027.1	1014.8	1019.9	1017.9
15°	1015.8	1009.7	996.3	1000.5	995.3
17.5°	994.3	988.1	974.8	979.9	974.8
20°	970.7	964.5	950.2	953.3	949.1
22.5°	947.1	937.9	924.5	924.5	922.5
25°	919.4	911.2	893.7	895.8	893.7
27.5°	888.6	881.4	868.1	865.0	859.9
30°	857.8	849.6	834.2	831.1	827.0
32.5°	825.0	818.8	802.4	796.3	792.2
35°	793.2	782.9	766.5	760.3	755.2
37.5°	757.3	748.0	731.6	724.4	719.3
40°	720.3	712.1	695.7	686.5	682.4
42.5°	684.4	676.2	659.8	649.5	643.4
45°	645.4	638.2	622.8	611.6	607.5
47.5°	607.5	600.3	583.9	572.6	566.4
50°	567.4	562.3	547.9	533.6	528.4
52.5°	528.4	521.3	507.9	496.6	489.5
55°	488.4	482.3	470.0	457.6	452.5
57.5°	448.4	443.3	429.9	417.6	413.5
60°	408.4	404.3	389.9	378.6	375.6
62.5°	369.4	362.2	352.0	341.7	337.6
65°	329.4	323.2	313.0	303.7	298.6
67.5°	288.3	283.2	274.0	266.8	262.7
70°	250.4	246.3	237.0	229.8	225.7
72.5°	211.4	207.3	202.1	195.0	191.9
75°	172.4	170.3	165.2	159.0	161.1
77.5°	137.5	133.4	131.3	128.3	125.2
80°	102.6	101.6	99.5	96.5	94.4
82.5°	69.8	69.8	68.7	64.6	64.6
85°	42.1	41.0	40.0	36.9	35.9
87.5°	18.5	16.4	14.4	11.3	10.3
90°	0.4	4.6	12.4	11.7	12.1
92.5°	7.8	10.7	11.0	11.4	11.4
95°	18.5	22.0	22.8	22.8	22.0
97.5°	30.9	34.1	35.6	35.6	35.6
100°	45.1	48.0	49.1	49.1	48.7
102.5°	60.1	62.2	63.6	64.0	63.6
105°	76.4	77.5	78.2	78.9	78.9
107.5°	92.8	94.2	94.2	94.6	92.8
110°	108.4	110.6	110.6	110.6	109.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	125.5	127.6	127.3	126.2	125.5
115°	142.2	144.3	143.6	143.3	142.2
117.5°	158.9	161.8	160.0	158.9	157.8
120°	175.6	178.5	175.6	175.6	174.6
122.5°	190.9	194.5	192.7	191.6	190.9
125°	206.9	210.1	209.0	208.0	207.6
127.5°	222.5	226.5	225.0	223.6	222.5
130°	237.1	241.7	241.0	240.3	238.9
132.5°	253.5	257.0	257.4	255.6	254.5
135°	267.7	271.6	272.3	272.0	270.9
137.5°	283.3	286.5	287.2	286.9	285.5
140°	297.2	300.4	302.2	302.2	300.8
142.5°	311.4	314.6	315.7	316.0	314.6
145°	324.9	327.4	329.6	329.9	328.5
147.5°	337.0	340.2	341.6	342.4	340.9
150°	349.5	351.6	353.0	354.1	353.0
152.5°	360.5	362.6	364.4	365.8	364.4
155°	371.5	372.6	373.6	375.4	374.3
157.5°	381.1	381.8	382.5	385.0	383.2
160°	389.6	390.3	390.7	392.8	391.4
162.5°	397.5	397.5	397.8	400.3	398.5
165°	404.2	403.9	403.9	406.3	404.6
167.5°	410.3	409.2	409.2	411.7	409.9
170°	414.9	413.8	413.5	415.9	413.8
172.5°	418.1	417.0	416.7	419.1	417.0
175°	420.6	419.5	418.8	421.3	419.1
177.5°	422.0	420.9	420.2	422.3	420.2
180°	421.3	421.3	421.3	421.3	421.3

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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	16.71	17.78	17.47	18.57	19.53	17.49	18.56	18.26	19.35	20.31
	3H	18.06	19.02	18.84	19.82	20.81	19.13	20.09	19.91	20.89	21.88
	4H	18.47	19.38	19.27	20.19	21.19	19.73	20.64	20.53	21.45	22.45
	6H	18.70	19.54	19.52	20.36	21.37	20.15	20.99	20.96	21.80	22.81
	8H	18.74	19.54	19.56	20.38	21.39	20.26	21.06	21.08	21.89	22.91
	12H	18.74	19.50	19.57	20.33	21.37	20.31	21.08	21.14	21.90	22.94
4H	2H	17.20	18.11	18.00	18.92	19.92	17.84	18.75	18.65	19.56	20.56
	3H	18.74	19.50	19.55	20.34	21.35	19.64	20.40	20.46	21.24	22.26
	4H	19.25	19.94	20.08	20.78	21.83	20.33	21.02	21.16	21.86	22.91
	6H	19.57	20.17	20.41	21.03	22.08	20.84	21.44	21.69	22.30	23.35
	8H	19.63	20.19	20.48	21.05	22.11	20.99	21.55	21.84	22.41	23.47
	12H	19.64	20.14	20.51	21.02	22.09	21.06	21.56	21.93	22.44	23.51
8H	4H	19.44	20.00	20.29	20.86	21.92	20.44	21.00	21.28	21.85	22.92
	6H	19.84	20.30	20.71	21.20	22.26	21.01	21.48	21.89	22.38	23.44
	8H	19.94	20.35	20.83	21.25	22.33	21.20	21.62	22.09	22.51	23.59
	12H	19.98	20.35	20.87	21.23	22.36	21.31	21.67	22.20	22.56	23.69
12H	4H	19.44	19.94	20.30	20.82	21.89	20.41	20.91	21.28	21.79	22.86
	6H	19.86	20.27	20.74	21.16	22.24	21.01	21.42	21.89	22.32	23.39
	8H	19.98	20.34	20.87	21.23	22.36	21.21	21.58	22.10	22.46	23.60