

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: P998902

Luminaire Tested: SA2XXDIP-B675D725UB40-4F0-XX-W2A-F4

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P998902
REPORT IS A COMBINATION OF REPORTS P984648 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B675D725UB40-4F0-XX-W2A-F4
Description: Define 2 Direct/Indirect Pendant with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

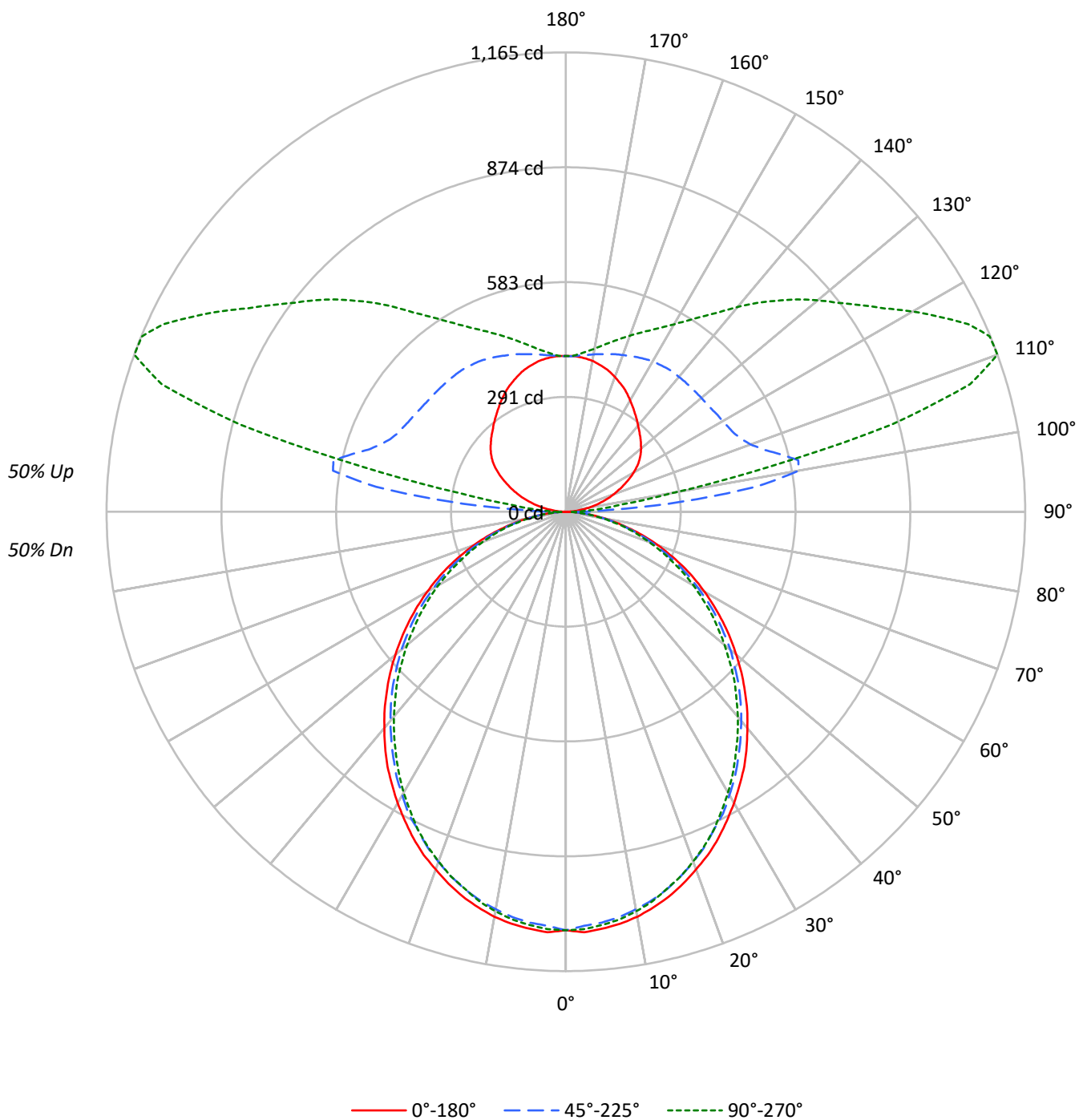
Lumens per Lamp: N/A
Luminaire Lumens: 5455.1 lumens
Efficiency: N/A
Efficacy: 95.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 57
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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56
1	98	93	89	86	90	86	83	80	73	70	68	61	59	57	49	48	47
2	89	82	75	70	82	75	70	66	64	60	56	53	50	48	43	41	40
3	81	72	64	58	75	66	60	55	56	51	47	47	43	40	38	36	34
4	74	63	56	49	68	59	52	46	50	45	40	42	38	35	34	31	29
5	68	57	48	42	63	52	45	40	45	39	35	38	33	30	31	28	25
6	63	51	43	37	58	47	40	35	40	35	30	34	30	26	28	25	22
7	58	46	38	32	53	43	35	30	37	31	27	31	27	23	26	22	20
8	54	42	34	28	50	39	32	27	33	28	24	28	24	21	24	20	18
9	50	38	30	25	46	35	29	24	31	25	21	26	22	19	22	18	16
10	47	35	28	23	43	33	26	22	28	23	19	24	20	17	20	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16800	16800	16800
5°	16827	16012	15899
10°	16689	15283	14979
15°	16445	14547	14012
20°	16114	13747	13096
25°	15785	12913	12182
30°	15371	12127	11222
35°	14981	11300	10279
40°	14497	10483	9388
45°	14019	9672	8515
50°	13494	8847	7608
55°	12942	7966	6749
60°	12323	7011	5857
65°	11646	6040	4917
70°	10783	4978	3972
75°	9588	3838	3066
80°	8143	2609	1974
85°	5905	1214	839

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 14019 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.9	1.8
10°-20°	281.0	5.2
20°-30°	413.0	7.6
30°-40°	479.7	8.8
40°-50°	479.1	8.8
50°-60°	417.7	7.7
60°-70°	308.8	5.7
70°-80°	174.7	3.2
80°-90°	48.6	0.9
90°-100°	160.1	2.9
100°-110°	541.1	9.9
110°-120°	568.7	10.4
120°-130°	467.7	8.6
130°-140°	375.8	6.9
140°-150°	283.9	5.2
150°-160°	199.6	3.7
160°-170°	117.5	2.2
170°-180°	38.2	0.7
0°-30°	793.9	14.6
0°-40°	1273.6	23.3
0°-60°	2170.4	39.8
0°-90°	2702.5	49.5
90°-120°	1269.9	23.3
90°-150°	2397.3	43.9
90°-180°	2753.0	50.5
0°-180°	5455.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1061	1061	1061	1061	1061	
5°	1061	1057	1046	1054	1052	101
15°	1010	1004	991	995	990	285
25°	914	906	889	891	889	421
35°	789	779	762	756	751	493
45°	642	635	619	608	604	495
55°	486	480	467	455	450	434
65°	328	321	311	302	297	324
75°	171	169	164	158	160	183
85°	42	41	40	37	36	47
90°	1	10	26	25	25	4
95°	27	65	298	112	87	27
105°	93	140	563	1006	856	98
115°	163	206	471	972	1126	162
125°	228	270	452	787	913	202
135°	267	319	447	661	757	206
145°	305	351	445	552	604	191
155°	347	375	432	489	508	160
165°	378	390	414	439	446	107
175°	394	394	398	403	402	37
180°	395	395	395	395	395	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1061.3	1061.3	1061.3	1061.3	1061.3
2.5°	1067.4	1062.3	1051.0	1061.3	1059.2
5°	1061.3	1057.2	1045.9	1054.1	1052.1
7.5°	1054.1	1048.0	1036.8	1044.9	1042.9
10°	1042.9	1035.7	1023.5	1031.7	1028.6
12.5°	1027.6	1021.5	1009.2	1014.3	1012.3
15°	1010.2	1004.1	990.8	994.9	989.8
17.5°	988.8	982.7	969.4	974.5	969.4
20°	965.3	959.2	944.9	948.0	943.9
22.5°	941.9	932.7	919.4	919.4	917.4
25°	914.3	906.1	888.8	890.8	888.8
27.5°	883.7	876.6	863.3	860.2	855.1
30°	853.1	844.9	829.6	826.6	822.5
32.5°	820.4	814.3	798.0	791.9	787.8
35°	788.8	778.6	762.3	756.1	751.0
37.5°	753.1	743.9	727.6	720.4	715.3
40°	716.3	708.2	691.9	682.7	678.6
42.5°	680.6	672.5	656.1	645.9	639.8
45°	641.9	634.7	619.4	608.2	604.1
47.5°	604.1	597.0	580.6	569.4	563.3
50°	564.3	559.2	544.9	530.6	525.5
52.5°	525.5	518.4	505.1	493.9	486.7
55°	485.7	479.6	467.4	455.1	450.0
57.5°	445.9	440.8	427.6	415.3	411.2
60°	406.1	402.1	387.8	376.5	373.5
62.5°	367.4	360.2	350.0	339.8	335.7
65°	327.6	321.4	311.2	302.0	296.9
67.5°	286.7	281.6	272.5	265.3	261.2
70°	249.0	244.9	235.7	228.6	224.5
72.5°	210.2	206.1	201.0	193.9	190.8
75°	171.4	169.4	164.3	158.2	160.2
77.5°	136.7	132.7	130.6	127.6	124.5
80°	102.0	101.0	99.0	95.9	93.9
82.5°	69.4	69.4	68.4	64.3	64.3
85°	41.8	40.8	39.8	36.7	35.7
87.5°	18.4	16.3	14.3	11.2	10.2
90°	0.8	10.2	25.8	24.7	25.1
92.5°	11.4	36.0	116.9	53.9	46.3
95°	26.6	65.3	297.6	112.4	86.6
97.5°	39.5	86.2	485.2	225.5	145.0
100°	58.5	105.6	599.8	449.1	271.8
102.5°	75.9	123.0	603.6	759.2	530.0
105°	92.6	139.7	562.6	1005.6	855.7
107.5°	110.9	156.4	524.6	1094.8	1075.1
110°	129.1	173.5	498.8	1080.4	1164.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	145.8	189.8	482.1	1031.4	1163.2
115°	163.2	206.2	470.7	971.5	1126.0
117.5°	181.5	222.4	464.7	914.1	1069.8
120°	198.2	238.4	459.3	862.8	1015.9
122.5°	214.1	254.7	456.3	823.0	959.7
125°	227.8	269.5	452.5	787.0	913.4
127.5°	239.2	283.6	450.2	756.2	870.1
130°	249.0	296.1	448.7	725.0	834.4
132.5°	258.1	308.2	448.0	692.8	797.2
135°	267.3	318.9	447.2	661.3	757.0
137.5°	275.6	328.0	447.2	629.4	718.2
140°	285.5	336.4	446.4	601.3	678.0
142.5°	295.3	343.2	446.4	574.4	637.8
145°	305.2	350.8	444.9	552.3	604.4
147.5°	315.8	356.8	442.6	533.0	574.8
150°	326.5	363.0	440.4	516.3	548.9
152.5°	337.1	369.0	436.6	502.2	526.9
155°	347.0	374.7	432.0	488.6	507.9
157.5°	355.3	379.2	427.5	475.7	491.2
160°	363.7	383.8	422.9	462.8	475.3
162.5°	372.0	387.2	419.1	450.6	460.1
165°	378.1	389.5	413.8	438.8	445.7
167.5°	383.4	391.8	409.2	428.2	432.0
170°	388.7	393.0	405.4	418.4	419.9
172.5°	391.8	394.0	400.9	409.6	410.0
175°	394.1	394.5	397.8	402.8	401.6
177.5°	395.6	394.8	394.8	397.8	395.6
180°	394.8	394.8	394.8	394.8	394.8

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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	14.99	15.85	15.96	16.83	18.11	15.78	16.63	16.74	17.61	18.89
	3H	16.33	17.10	17.30	18.09	19.39	17.40	18.17	18.37	19.16	20.46
	4H	16.74	17.46	17.72	18.45	19.76	17.99	18.72	18.98	19.71	21.02
	6H	16.96	17.63	17.95	18.62	19.94	18.40	19.07	19.39	20.06	21.38
	8H	16.98	17.62	17.99	18.63	19.95	18.51	19.14	19.51	20.15	21.47
	12H	16.98	17.58	17.98	18.59	19.93	18.55	19.16	19.56	20.16	21.50
4H	2H	15.46	16.19	16.45	17.18	18.49	16.11	16.83	17.10	17.82	19.13
	3H	16.98	17.59	17.98	18.60	19.93	17.89	18.49	18.89	19.51	20.83
	4H	17.49	18.04	18.49	19.05	20.40	18.57	19.12	19.58	20.13	21.48
	6H	17.79	18.27	18.81	19.30	20.64	19.06	19.54	20.08	20.58	21.92
	8H	17.84	18.29	18.87	19.32	20.68	19.21	19.65	20.23	20.68	22.04
	12H	17.84	18.25	18.88	19.29	20.65	19.27	19.67	20.31	20.71	22.08
8H	4H	17.66	18.11	18.68	19.13	20.49	18.65	19.10	19.67	20.13	21.48
	6H	18.04	18.41	19.09	19.48	20.84	19.22	19.59	20.27	20.66	22.02
	8H	18.15	18.47	19.20	19.53	20.90	19.41	19.74	20.46	20.79	22.16
	12H	18.18	18.46	19.24	19.51	20.93	19.51	19.80	20.57	20.84	22.26
12H	4H	17.64	18.05	18.68	19.09	20.45	18.62	19.02	19.66	20.06	21.43
	6H	18.06	18.39	19.12	19.44	20.82	19.21	19.54	20.27	20.59	21.97
	8H	18.17	18.46	19.23	19.51	20.93	19.41	19.70	20.47	20.74	22.16