

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P242360

Luminaire Tested: S122RDRP-S675D830-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242360
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-24)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S675D830-X4F0-XX-UDD-F-W
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

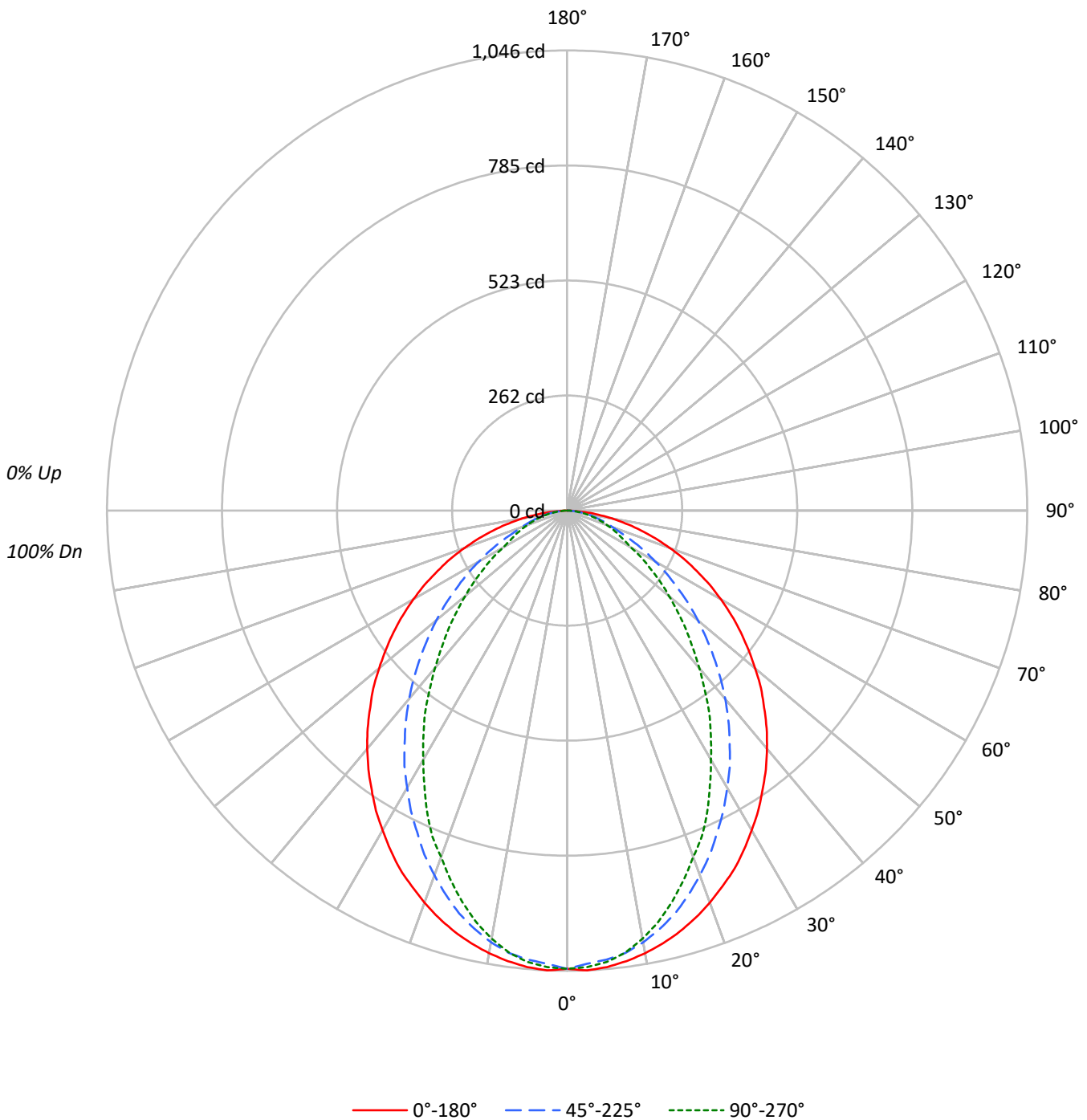
Lumens per Lamp: N/A
Luminaire Lumens: 2142.0 lumens
Efficiency: N/A
Efficacy: 81.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 26.3
Input Voltage (V): 120
Input Current (A_{in}): 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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86
2	101	94	87	82	98	92	86	81	88	83	79	85	81	78	82	79	76	74
3	93	83	76	70	90	82	75	69	79	73	68	76	71	67	74	69	66	64
4	86	75	66	60	83	73	66	60	71	64	59	69	63	58	66	62	57	55
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49
6	74	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41	39
8	64	51	43	38	62	51	43	37	49	42	37	48	42	37	47	41	37	35
9	60	47	39	34	59	47	39	34	46	39	34	44	38	34	44	38	34	32
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19838	19838	19838
5°	19914	19589	19698
10°	19761	19270	19106
15°	19534	18698	18160
20°	19220	17882	16984
25°	18898	16956	15847
30°	18451	16003	14387
35°	18016	14970	13105
40°	17577	13897	11624
45°	17062	12696	10282
50°	16535	11480	8967
55°	15993	10172	7701
60°	15368	8796	6392
65°	14657	7392	5819
70°	13806	6087	5352
75°	12761	5549	4997
80°	11265	4958	4552
85°	8851	3912	3912

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 17062 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.6	4.6
10°-20°	268.0	12.5
20°-30°	376.2	17.6
30°-40°	410.1	19.1
40°-50°	376.9	17.6
50°-60°	296.0	13.8
60°-70°	192.7	9.0
70°-80°	99.2	4.6
80°-90°	25.3	1.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	741.8	34.6
0°-40°	1151.9	53.8
0°-60°	1824.8	85.2
0°-90°	2142.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2142.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1042	1042	1042	1042	1042	
5°	1042	1037	1024	1033	1030	99
15°	991	980	948	930	921	279
25°	899	869	807	768	754	414
35°	775	727	644	584	564	485
45°	633	570	471	404	382	489
55°	482	408	306	250	232	430
65°	325	249	164	132	129	322
75°	173	107	75	69	68	183
85°	40	21	18	18	18	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1041.5	1041.5	1041.5	1041.5	1041.5
2.5°	1046.2	1041.5	1031.1	1040.6	1038.7
5°	1041.5	1036.8	1024.5	1033.0	1030.2
7.5°	1033.0	1027.4	1014.2	1017.9	1013.2
10°	1021.7	1015.1	996.3	993.4	987.8
12.5°	1007.6	999.1	973.6	968.0	957.6
15°	990.6	980.2	948.2	930.3	920.9
17.5°	970.8	955.7	916.1	895.4	880.3
20°	948.2	929.3	882.2	858.7	837.9
22.5°	923.7	902.0	847.3	815.3	801.2
25°	899.2	869.0	806.8	768.2	754.0
27.5°	870.0	837.9	769.1	724.8	703.1
30°	838.9	803.0	727.6	679.6	654.1
32.5°	808.7	765.3	688.1	631.5	607.9
35°	774.8	726.7	643.8	584.4	563.6
37.5°	741.8	689.9	602.3	537.2	513.7
40°	706.9	650.4	558.9	492.0	467.5
42.5°	671.1	610.8	515.6	445.8	422.3
45°	633.4	570.2	471.3	404.3	381.7
47.5°	597.6	530.7	428.9	361.9	341.2
50°	558.0	491.1	387.4	322.3	302.6
52.5°	519.3	448.6	347.8	285.6	267.7
55°	481.6	408.1	306.3	249.8	231.9
57.5°	443.0	367.6	269.6	216.8	201.7
60°	403.4	328.0	230.9	182.9	167.8
62.5°	364.8	289.4	197.9	152.7	145.2
65°	325.2	248.8	164.0	132.0	129.1
67.5°	287.5	211.1	132.0	115.9	113.1
70°	247.9	174.4	109.3	99.9	96.1
72.5°	210.2	140.4	91.4	83.9	82.0
75°	173.4	107.4	75.4	68.8	67.9
77.5°	136.7	76.3	59.4	55.6	53.7
80°	102.7	54.7	45.2	41.5	41.5
82.5°	71.6	36.8	31.1	29.2	29.2
85°	40.5	20.7	17.9	17.9	17.9
87.5°	15.1	7.5	7.5	6.6	6.6
90°	0.0	0.0	0.0	0.0	0.0

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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	21.61	23.14	21.98	23.45	23.76	17.58	19.10	17.94	19.41	19.73
	3H	23.38	24.75	23.76	25.07	25.43	18.84	20.21	19.22	20.53	20.90
	4H	24.05	25.33	24.45	25.68	26.05	19.34	20.62	19.74	20.97	21.35
	6H	24.54	25.72	24.95	26.08	26.48	19.72	20.91	20.14	21.27	21.66
	8H	24.70	25.83	25.13	26.22	26.62	19.85	20.97	20.27	21.36	21.76
	12H	24.80	25.88	25.23	26.26	26.69	19.93	21.01	20.36	21.39	21.82
4H	2H	21.72	23.00	22.12	23.35	23.73	18.27	19.55	18.67	19.90	20.28
	3H	23.65	24.71	24.06	25.11	25.52	19.71	20.78	20.12	21.18	21.58
	4H	24.40	25.36	24.83	25.77	26.21	20.31	21.27	20.75	21.69	22.12
	6H	24.99	25.83	25.45	26.27	26.73	20.80	21.63	21.26	22.08	22.54
	8H	25.21	25.99	25.67	26.43	26.90	20.96	21.74	21.43	22.18	22.65
	12H	25.36	26.06	25.84	26.53	27.01	21.08	21.78	21.56	22.25	22.72
8H	4H	24.43	25.20	24.89	25.65	26.11	20.67	21.44	21.13	21.89	22.36
	6H	25.06	25.71	25.56	26.20	26.67	21.25	21.90	21.75	22.39	22.86
	8H	25.31	25.89	25.83	26.40	26.89	21.47	22.05	21.99	22.56	23.05
	12H	25.52	26.03	26.03	26.52	27.08	21.65	22.16	22.16	22.66	23.22
12H	4H	24.41	25.10	24.89	25.58	26.05	20.71	21.41	21.19	21.88	22.35
	6H	25.04	25.62	25.56	26.13	26.62	21.32	21.89	21.83	22.40	22.89
	8H	25.33	25.84	25.84	26.33	26.89	21.59	22.10	22.10	22.59	23.16