

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: P242252

Luminaire Tested: S122DRP-S675D927-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242252
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-10)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122DRP-S675D927-X4F0-XX-UDD-F-W
Description: DEFINE 2 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

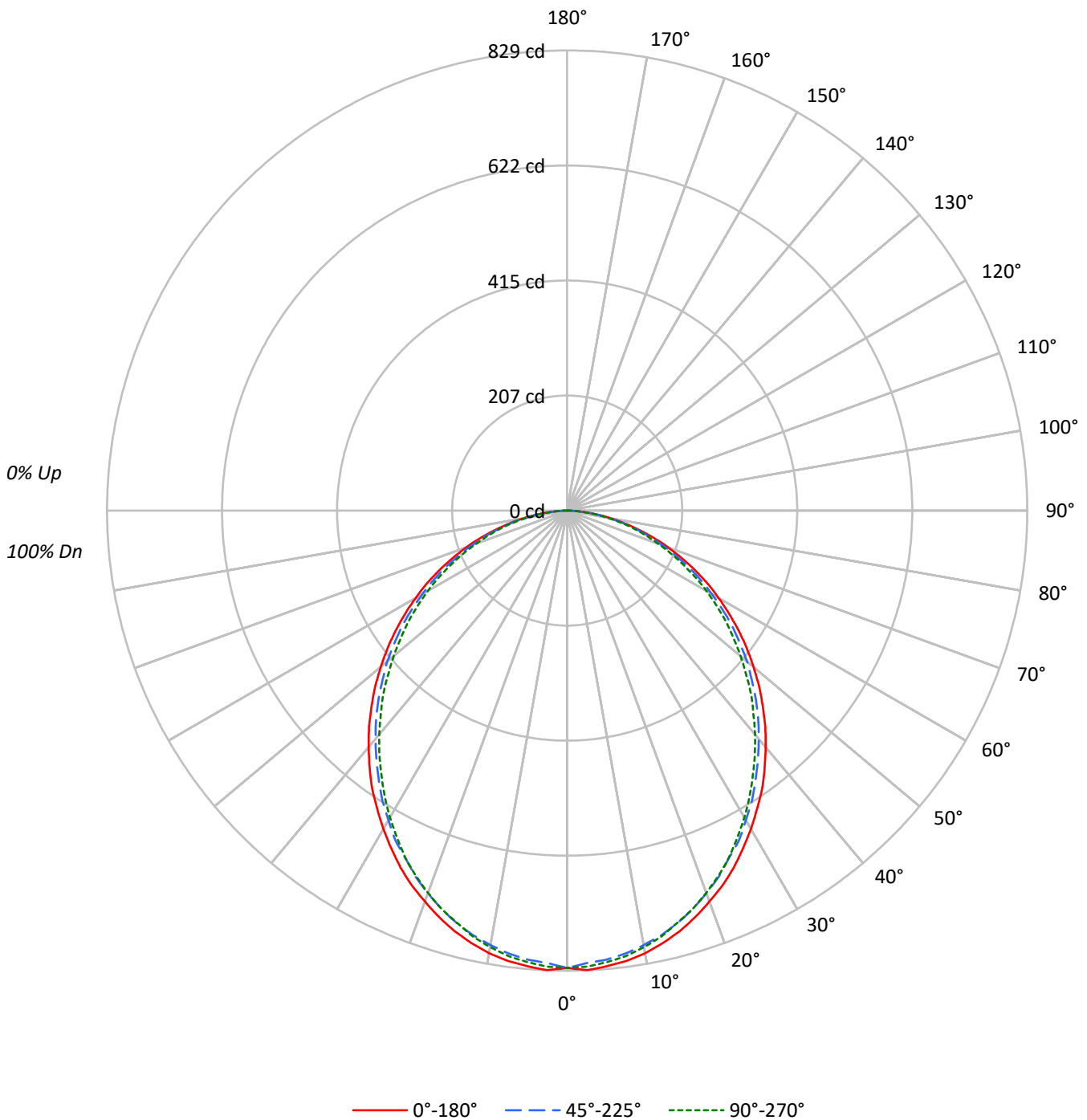
Lumens per Lamp: N/A
Luminaire Lumens: 2096.0 lumens
Efficiency: N/A
Efficacy: 79.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')
CIE Type: Direct

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																		
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	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	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84																												
2	99	91	85	79	97	89	83	78	86	81	76	83	78	74	80	76	73	71																												
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	71	66	62	60																												
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51																												
5	77	64	55	49	75	63	55	48	61	53	48	59	52	47	57	51	47	45																												
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39																												
7	66	52	44	38	64	52	43	38	50	43	37	49	42	37	47	41	37	35																												
8	61	48	40	34	60	47	39	34	46	39	33	45	38	33	44	38	33	31																												
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28																												
10	54	41	33	28	53	40	33	28	39	32	28	38	32	27	37	32	27	26																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15693	15693	15693
5°	15753	15526	15616
10°	15659	15369	15444
15°	15466	15168	15153
20°	15190	14870	14854
25°	14918	14502	14502
30°	14567	14164	14043
35°	14240	13761	13556
40°	13827	13355	13099
45°	13423	12954	12634
50°	12982	12535	12090
55°	12523	12048	11603
60°	12011	11467	11044
65°	11461	10889	10389
70°	10765	10192	9707
75°	9795	9383	9155
80°	8688	8424	7997
85°	7103	6753	6054

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 13423 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.5	3.7
10°-20°	218.2	10.4
20°-30°	320.6	15.3
30°-40°	372.4	17.8
40°-50°	371.9	17.7
50°-60°	324.3	15.5
60°-70°	239.7	11.4
70°-80°	135.6	6.5
80°-90°	35.8	1.7
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°	616.3	29.4
0°-40°	988.7	47.2
0°-60°	1684.9	80.4
0°-90°	2096.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2096.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	824	824	824	824	824	
5°	824	821	812	818	817	78
15°	784	780	769	772	768	221
25°	710	704	690	692	690	327
35°	612	604	592	587	583	382
45°	498	493	481	472	469	385
55°	377	372	363	353	349	337
65°	254	250	242	234	230	251
75°	133	132	128	123	124	142
85°	32	32	31	28	28	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	823.9	823.9	823.9	823.9	823.9
2.5°	828.6	824.7	815.9	823.9	822.3
5°	823.9	820.7	812.0	818.3	816.7
7.5°	818.3	813.6	804.9	811.2	809.6
10°	809.6	804.1	794.6	800.9	798.5
12.5°	797.7	793.0	783.5	787.4	785.8
15°	784.3	779.5	769.2	772.4	768.4
17.5°	767.6	762.9	752.6	756.5	752.6
20°	749.4	744.7	733.6	735.9	732.8
22.5°	731.2	724.1	713.8	713.8	712.2
25°	709.8	703.5	690.0	691.6	690.0
27.5°	686.0	680.5	670.2	667.8	663.8
30°	662.3	655.9	644.0	641.7	638.5
32.5°	636.9	632.2	619.5	614.7	611.6
35°	612.4	604.4	591.8	587.0	583.0
37.5°	584.6	577.5	564.8	559.3	555.3
40°	556.1	549.8	537.1	530.0	526.8
42.5°	528.4	522.0	509.4	501.5	496.7
45°	498.3	492.7	480.9	472.1	469.0
47.5°	469.0	463.4	450.8	442.0	437.3
50°	438.1	434.1	423.0	411.9	408.0
52.5°	408.0	402.4	392.1	383.4	377.9
55°	377.1	372.3	362.8	353.3	349.4
57.5°	346.2	342.2	331.9	322.4	319.2
60°	315.3	312.1	301.0	292.3	289.9
62.5°	285.2	279.6	271.7	263.8	260.6
65°	254.3	249.5	241.6	234.5	230.5
67.5°	222.6	218.6	211.5	206.0	202.8
70°	193.3	190.1	183.0	177.4	174.3
72.5°	163.2	160.0	156.1	150.5	148.1
75°	133.1	131.5	127.5	122.8	124.4
77.5°	106.2	103.0	101.4	99.0	96.6
80°	79.2	78.4	76.8	74.5	72.9
82.5°	53.9	53.9	53.1	49.9	49.9
85°	32.5	31.7	30.9	28.5	27.7
87.5°	14.3	12.7	11.1	8.7	7.9
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	20.85	22.46	21.21	22.77	23.09	20.40	22.01	20.77	22.33	22.64
	3H	22.60	24.05	22.97	24.38	24.74	22.11	23.56	22.48	23.89	24.25
	4H	23.24	24.61	23.64	24.96	25.34	22.75	24.12	23.15	24.47	24.84
	6H	23.71	24.98	24.12	25.35	25.74	23.21	24.48	23.62	24.84	25.24
	8H	23.86	25.07	24.28	25.46	25.86	23.35	24.56	23.78	24.95	25.35
	12H	23.95	25.11	24.38	25.49	25.92	23.43	24.59	23.86	24.98	25.40
4H	2H	21.41	22.78	21.81	23.12	23.50	21.06	22.42	21.45	22.77	23.15
	3H	23.38	24.53	23.79	24.93	25.33	22.98	24.12	23.39	24.52	24.92
	4H	24.16	25.20	24.59	25.61	26.05	23.74	24.77	24.17	25.19	25.62
	6H	24.76	25.66	25.21	26.10	26.56	24.32	25.23	24.78	25.67	26.13
	8H	24.95	25.79	25.41	26.23	26.70	24.51	25.35	24.97	25.80	26.26
	12H	25.08	25.84	25.56	26.31	26.78	24.63	25.39	25.11	25.86	26.33
8H	4H	24.43	25.28	24.89	25.72	26.19	24.06	24.91	24.52	25.35	25.81
	6H	25.15	25.85	25.64	26.34	26.81	24.77	25.47	25.26	25.96	26.43
	8H	25.41	26.04	25.92	26.54	27.03	25.02	25.65	25.52	26.15	26.64
	12H	25.61	26.16	26.11	26.66	27.22	25.19	25.75	25.70	26.24	26.80
12H	4H	24.46	25.22	24.94	25.69	26.16	24.09	24.85	24.57	25.33	25.80
	6H	25.19	25.82	25.70	26.33	26.82	24.82	25.46	25.33	25.96	26.45
	8H	25.51	26.06	26.01	26.56	27.12	25.13	25.69	25.64	26.18	26.74