

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: P242276

Luminaire Tested: S122DRP-S675D935-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P242276  
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-S675D935-X4F0-XX-UDD-F-W  
Description: DEFINE 2 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

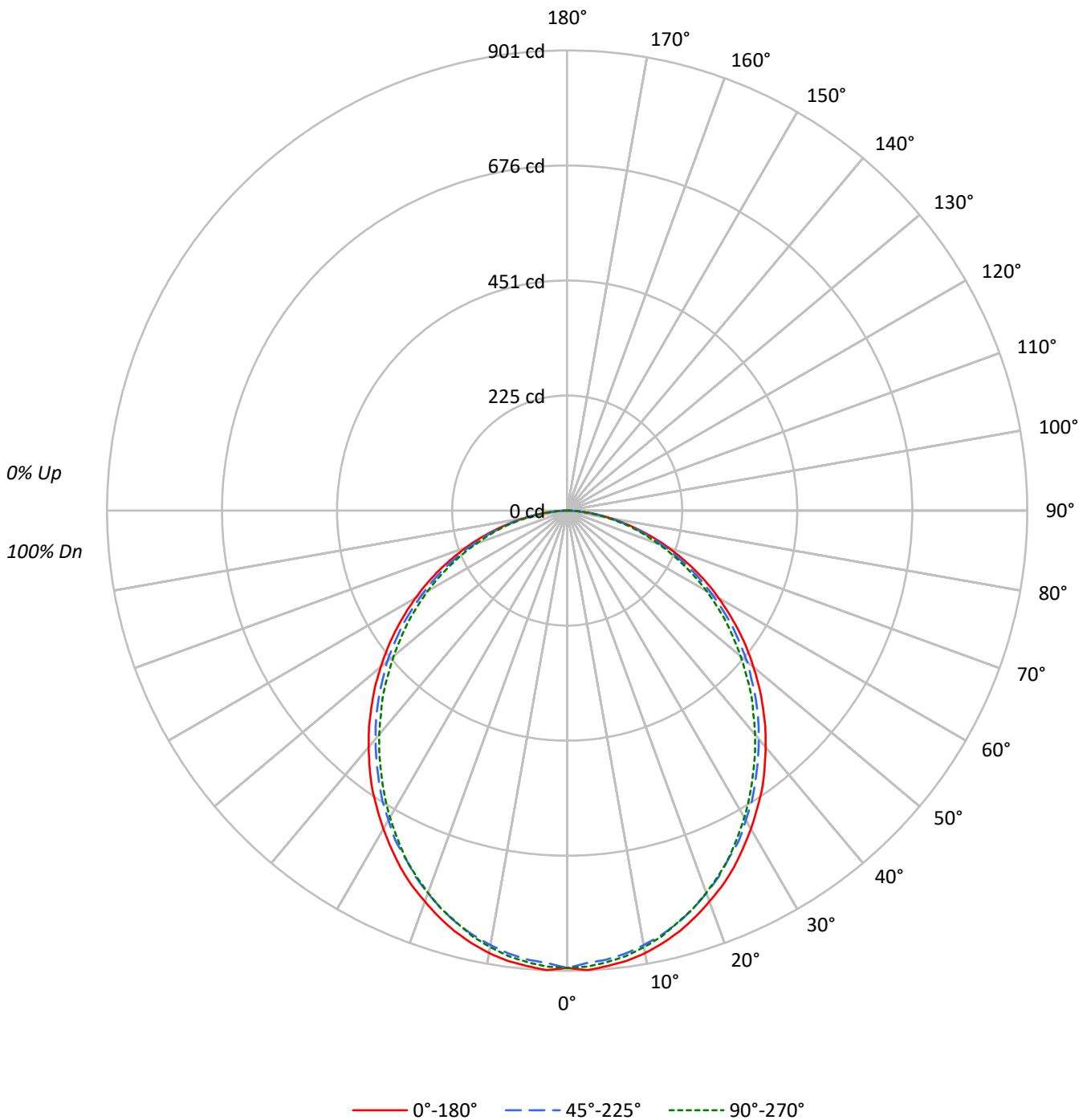
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2278.1 lumens  
Efficiency: N/A  
Efficacy: 86.6 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 (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	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	27	38	32	27	37	32	27	26

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	17055	17055	17055
5°	17120	16874	16973
10°	17019	16703	16787
15°	16809	16486	16470
20°	16510	16161	16143
25°	16214	15761	15761
30°	15832	15396	15264
35°	15477	14956	14735
40°	15028	14516	14238
45°	14589	14078	13730
50°	14108	13625	13139
55°	13609	13094	12609
60°	13055	12465	12004
65°	12458	11836	11295
70°	11701	11077	10548
75°	10642	10200	9950
80°	9444	9159	8688
85°	7715	7343	6578

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 14589 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	84.3	3.7
10°-20°	237.1	10.4
20°-30°	348.5	15.3
30°-40°	404.7	17.8
40°-50°	404.2	17.7
50°-60°	352.5	15.5
60°-70°	260.5	11.4
70°-80°	147.4	6.5
80°-90°	38.9	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°	669.9	29.4
0°-40°	1074.6	47.2
0°-60°	1831.3	80.4
0°-90°	2278.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2278.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	895	895	895	895	895	
5°	895	892	882	889	888	85
15°	852	847	836	840	835	240
25°	772	765	750	752	750	355
35°	666	657	643	638	634	416
45°	542	536	523	513	510	418
55°	410	405	394	384	380	366
65°	276	271	263	255	251	273
75°	145	143	139	134	135	154
85°	35	34	34	31	30	41
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	895.4	895.4	895.4	895.4	895.4
2.5°	900.6	896.3	886.8	895.4	893.7
5°	895.4	892.0	882.5	889.4	887.7
7.5°	889.4	884.2	874.8	881.7	879.9
10°	879.9	873.9	863.6	870.5	867.9
12.5°	867.0	861.9	851.5	855.8	854.1
15°	852.4	847.2	836.0	839.5	835.2
17.5°	834.3	829.1	818.0	822.3	818.0
20°	814.5	809.3	797.3	799.9	796.4
22.5°	794.7	787.0	775.8	775.8	774.0
25°	771.5	764.6	749.9	751.7	749.9
27.5°	745.6	739.6	728.4	725.8	721.5
30°	719.8	712.9	700.0	697.4	694.0
32.5°	692.2	687.1	673.3	668.1	664.7
35°	665.6	656.9	643.2	638.0	633.7
37.5°	635.4	627.7	613.9	607.9	603.6
40°	604.4	597.5	583.8	576.0	572.6
42.5°	574.3	567.4	553.6	545.0	539.8
45°	541.6	535.5	522.6	513.2	509.7
47.5°	509.7	503.7	489.9	480.4	475.3
50°	476.1	471.8	459.8	447.7	443.4
52.5°	443.4	437.4	426.2	416.7	410.7
55°	409.8	404.7	394.3	384.0	379.7
57.5°	376.3	372.0	360.8	350.4	347.0
60°	342.7	339.2	327.2	317.7	315.1
62.5°	310.0	303.9	295.3	286.7	283.3
65°	276.4	271.2	262.6	254.9	250.6
67.5°	241.9	237.6	229.9	223.9	220.4
70°	210.1	206.6	198.9	192.9	189.4
72.5°	177.4	173.9	169.6	163.6	161.0
75°	144.6	142.9	138.6	133.5	135.2
77.5°	115.4	111.9	110.2	107.6	105.0
80°	86.1	85.2	83.5	80.9	79.2
82.5°	58.5	58.5	57.7	54.2	54.2
85°	35.3	34.4	33.6	31.0	30.1
87.5°	15.5	13.8	12.1	9.5	8.6
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	21.14	22.75	21.50	23.06	23.38	20.69	22.30	21.06	22.62	22.93
	3H	22.89	24.34	23.26	24.67	25.03	22.40	23.85	22.77	24.18	24.54
	4H	23.53	24.90	23.93	25.25	25.63	23.04	24.41	23.44	24.76	25.13
	6H	24.00	25.27	24.41	25.64	26.03	23.50	24.77	23.91	25.13	25.53
	8H	24.15	25.36	24.57	25.75	26.14	23.64	24.85	24.07	25.24	25.64
	12H	24.24	25.40	24.67	25.78	26.21	23.72	24.88	24.15	25.27	25.69
4H	2H	21.70	23.07	22.10	23.42	23.79	21.34	22.71	21.74	23.06	23.44
	3H	23.67	24.82	24.08	25.22	25.62	23.27	24.41	23.68	24.81	25.21
	4H	24.45	25.48	24.88	25.90	26.33	24.03	25.06	24.46	25.48	25.91
	6H	25.05	25.95	25.50	26.39	26.85	24.61	25.52	25.07	25.96	26.42
	8H	25.23	26.08	25.70	26.52	26.99	24.80	25.64	25.26	26.09	26.55
	12H	25.37	26.13	25.85	26.60	27.07	24.91	25.67	25.39	26.15	26.62
8H	4H	24.72	25.57	25.18	26.01	26.48	24.35	25.20	24.81	25.64	26.10
	6H	25.44	26.14	25.93	26.63	27.10	25.06	25.76	25.55	26.25	26.72
	8H	25.70	26.33	26.21	26.83	27.32	25.30	25.93	25.81	26.44	26.93
	12H	25.90	26.45	26.40	26.94	27.50	25.48	26.04	25.99	26.53	27.09
12H	4H	24.75	25.51	25.23	25.98	26.45	24.38	25.14	24.86	25.62	26.09
	6H	25.48	26.11	25.99	26.62	27.11	25.11	25.75	25.62	26.25	26.74
	8H	25.80	26.35	26.30	26.84	27.41	25.42	25.98	25.92	26.47	27.03