

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P242384

Luminaire Tested: **S122RDR-S675D940-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242384  
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 (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122RDR-S675D940-X4F0-XX-UDD-F-W  
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2026.5 lumens  
Efficiency: N/A  
Efficacy: 77.1 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

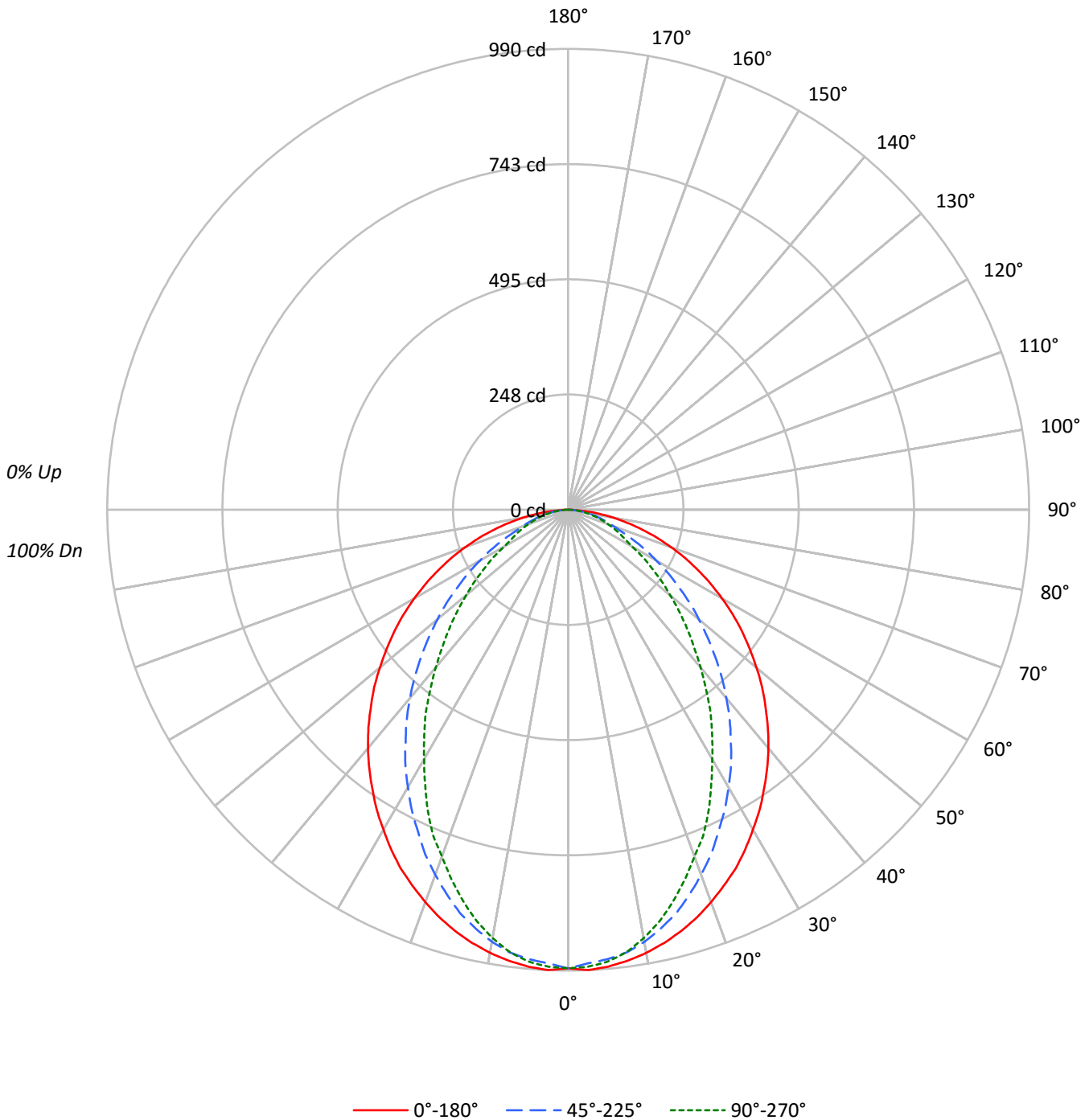
Input Watts (W): 26.3  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	18768	18768	18768
5°	18839	18533	18635
10°	18696	18229	18075
15°	18481	17690	17180
20°	18184	16917	16068
25°	17879	16042	14993
30°	17455	15141	13610
35°	17044	14161	12398
40°	16630	13149	10998
45°	16141	12011	9727
50°	15643	10860	8481
55°	15133	9624	7286
60°	14541	8324	6046
65°	13864	6995	5508
70°	13060	5759	5068
75°	12077	5247	4725
80°	10662	4695	4300
85°	8370	3693	3693



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	92.3	4.6
10°-20°	253.5	12.5
20°-30°	355.9	17.6
30°-40°	388.0	19.1
40°-50°	356.6	17.6
50°-60°	280.0	13.8
60°-70°	182.3	9.0
70°-80°	93.8	4.6
80°-90°	23.9	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°	701.8	34.6
0°-40°	1089.7	53.8
0°-60°	1726.4	85.2
0°-90°	2026.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2026.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	985	985	985	985	985	
5°	985	981	969	977	975	93
15°	937	927	897	880	871	264
25°	851	822	763	727	713	391
35°	733	688	609	553	533	459
45°	599	540	446	382	361	463
55°	456	386	290	236	219	407
65°	308	235	155	125	122	305
75°	164	102	71	65	64	174
85°	38	20	17	17	17	46
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	985.3	985.3	985.3	985.3	985.3
2.5°	989.8	985.3	975.5	984.4	982.7
5°	985.3	980.9	969.3	977.3	974.6
7.5°	977.3	972.0	959.5	963.0	958.6
10°	966.6	960.4	942.5	939.9	934.5
12.5°	953.2	945.2	921.1	915.8	906.0
15°	937.2	927.4	897.1	880.1	871.2
17.5°	918.5	904.2	866.7	847.1	832.9
20°	897.1	879.2	834.6	812.3	792.7
22.5°	873.9	853.4	801.6	771.3	758.0
25°	850.7	822.2	763.3	726.7	713.4
27.5°	823.0	792.7	727.6	685.7	665.2
30°	793.6	759.7	688.4	642.9	618.8
32.5°	765.1	724.1	650.9	597.4	575.2
35°	733.0	687.5	609.0	552.9	533.2
37.5°	701.8	652.7	569.8	508.3	486.0
40°	668.8	615.3	528.8	465.5	442.3
42.5°	634.9	577.8	487.8	421.8	399.5
45°	599.2	539.5	445.9	382.5	361.1
47.5°	565.3	502.0	405.7	342.4	322.8
50°	527.9	464.6	366.5	305.0	286.2
52.5°	491.3	424.5	329.0	270.2	253.2
55°	455.7	386.1	289.8	236.3	219.4
57.5°	419.1	347.8	255.0	205.1	190.8
60°	381.7	310.3	218.5	173.0	158.7
62.5°	345.1	273.8	187.3	144.5	137.3
65°	307.6	235.4	155.2	124.8	122.2
67.5°	272.0	199.7	124.8	109.7	107.0
70°	234.5	165.0	103.4	94.5	91.0
72.5°	198.9	132.9	86.5	79.4	77.6
75°	164.1	101.7	71.3	65.1	64.2
77.5°	129.3	72.2	56.2	52.6	50.8
80°	97.2	51.7	42.8	39.2	39.2
82.5°	67.8	34.8	29.4	27.6	27.6
85°	38.3	19.6	16.9	16.9	16.9
87.5°	14.3	7.1	7.1	6.2	6.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)