

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: P243141

Luminaire Tested: **S122DR-H675D940-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243141  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-48)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122DR-H675D940-X4F0-XX-UDD-F-W  
Description: DEFINE 2 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2298.7 lumens  
Efficiency: N/A  
Efficacy: 97.4 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

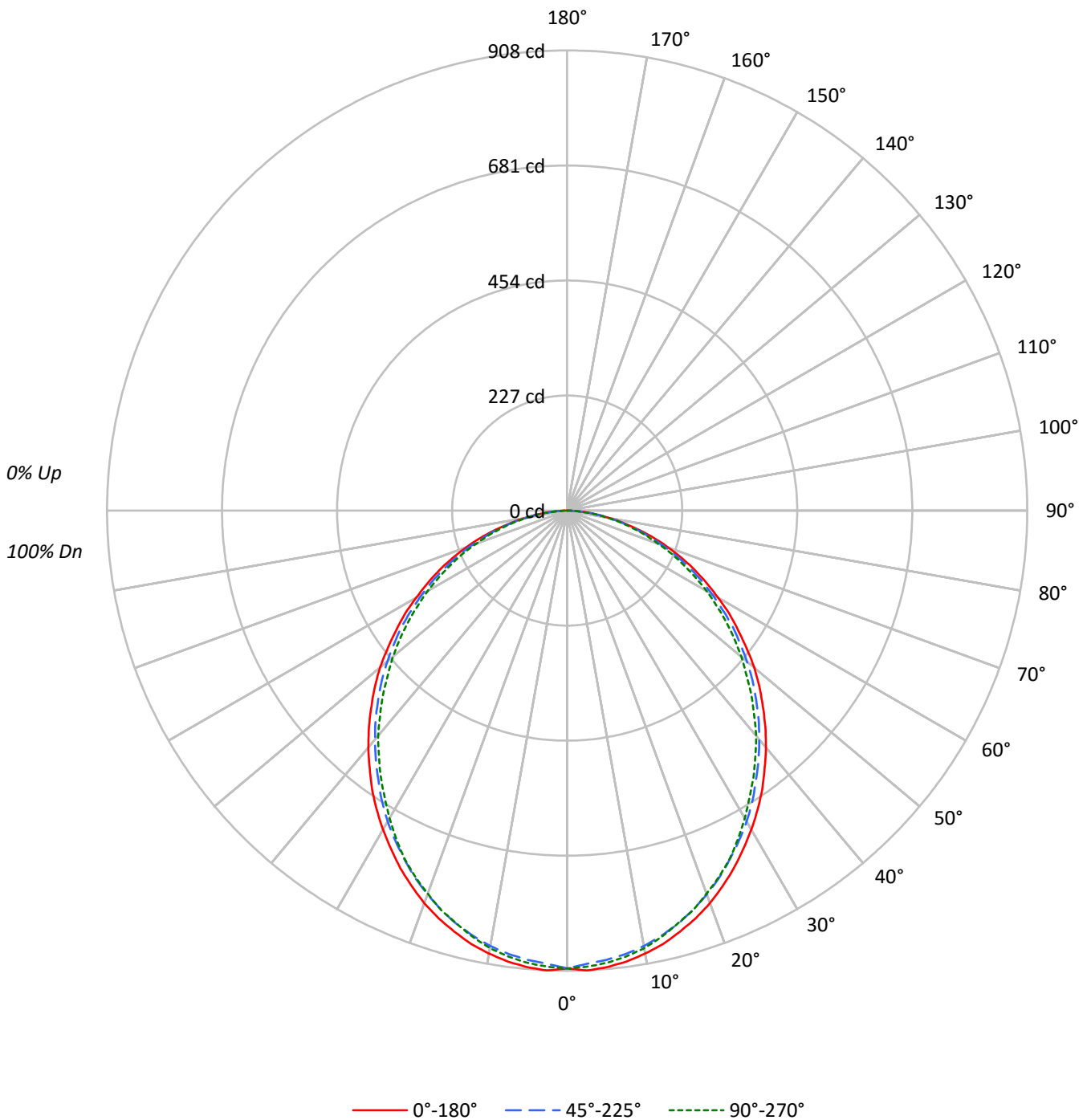
Input Watts (W): 23.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	17206	17206	17206
5°	17289	17017	17128
10°	17166	16876	16957
15°	16959	16647	16632
20°	16707	16336	16303
25°	16362	15958	15941
30°	15986	15583	15418
35°	15605	15100	14907
40°	15175	14658	14429
45°	14713	14196	13838
50°	14286	13717	13299
55°	13685	13217	12719
60°	13101	12591	12114
65°	12534	11935	11407
70°	11779	11177	10620
75°	10723	10296	9803
80°	9313	9039	8677
85°	7999	7103	6556



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	85.0	3.7
10°-20°	239.4	10.4
20°-30°	352.0	15.3
30°-40°	408.7	17.8
40°-50°	408.2	17.8
50°-60°	355.5	15.5
60°-70°	262.9	11.4
70°-80°	148.2	6.4
80°-90°	38.6	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°	676.5	29.4
0°-40°	1085.2	47.2
0°-60°	1848.9	80.4
0°-90°	2298.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2298.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	903	903	903	903	903	
5°	904	900	890	898	896	86
15°	860	856	844	848	843	243
25°	778	772	759	758	758	358
35°	671	664	649	644	641	419
45°	546	540	527	519	514	422
55°	412	409	398	387	383	369
65°	278	274	265	256	253	275
75°	146	145	140	135	133	155
85°	37	35	32	31	30	41
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	903.3	903.3	903.3	903.3	903.3
2.5°	908.3	904.2	895.0	902.5	900.8
5°	904.2	900.0	890.0	897.5	895.8
7.5°	897.5	893.4	882.5	890.0	887.5
10°	887.5	882.5	872.5	877.5	876.7
12.5°	875.9	870.9	859.2	863.4	861.7
15°	860.0	855.9	844.2	847.6	843.4
17.5°	843.4	836.7	825.9	829.2	826.7
20°	824.2	817.6	805.9	807.6	804.3
22.5°	801.8	795.1	784.3	784.3	782.6
25°	778.5	771.8	759.3	758.5	758.5
27.5°	752.6	746.8	734.3	731.8	730.2
30°	726.8	721.8	708.5	703.5	701.0
32.5°	699.4	692.7	680.2	674.4	670.2
35°	671.1	663.6	649.4	643.6	641.1
37.5°	640.2	632.8	620.3	615.3	610.3
40°	610.3	603.6	589.5	582.0	580.3
42.5°	578.6	572.0	559.5	551.2	546.2
45°	546.2	540.3	527.0	518.7	513.7
47.5°	514.5	507.9	496.2	486.2	479.6
50°	482.1	475.4	462.9	451.3	448.8
52.5°	446.3	442.1	429.6	418.8	415.5
55°	412.1	408.8	398.0	387.1	383.0
57.5°	379.7	375.5	363.0	354.7	349.7
60°	343.9	341.4	330.5	321.4	318.0
62.5°	310.5	307.2	298.1	288.9	284.7
65°	278.1	273.9	264.8	256.4	253.1
67.5°	244.8	240.6	233.1	226.5	223.1
70°	211.5	208.1	200.7	194.8	190.7
72.5°	179.0	175.7	169.0	163.2	162.4
75°	145.7	144.9	139.9	134.9	133.2
77.5°	114.9	114.1	110.7	108.2	106.6
80°	84.9	84.9	82.4	79.9	79.1
82.5°	58.3	59.1	56.6	54.9	54.9
85°	36.6	35.0	32.5	30.8	30.0
87.5°	15.0	12.5	11.7	9.2	8.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)