

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: P242941

Luminaire Tested: **S121DR-H880D927-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242941  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-47)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S121DR-H880D927-X4F0-XX-UDD-F-W  
Description: DEFINE 1 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 2700K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2611.1 lumens  
Efficiency: N/A  
Efficacy: 82.9 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29  
Luminous Opening: Rectangular (W 0.09' x L: 3.88' x H: 0')  
CIE Type: Direct

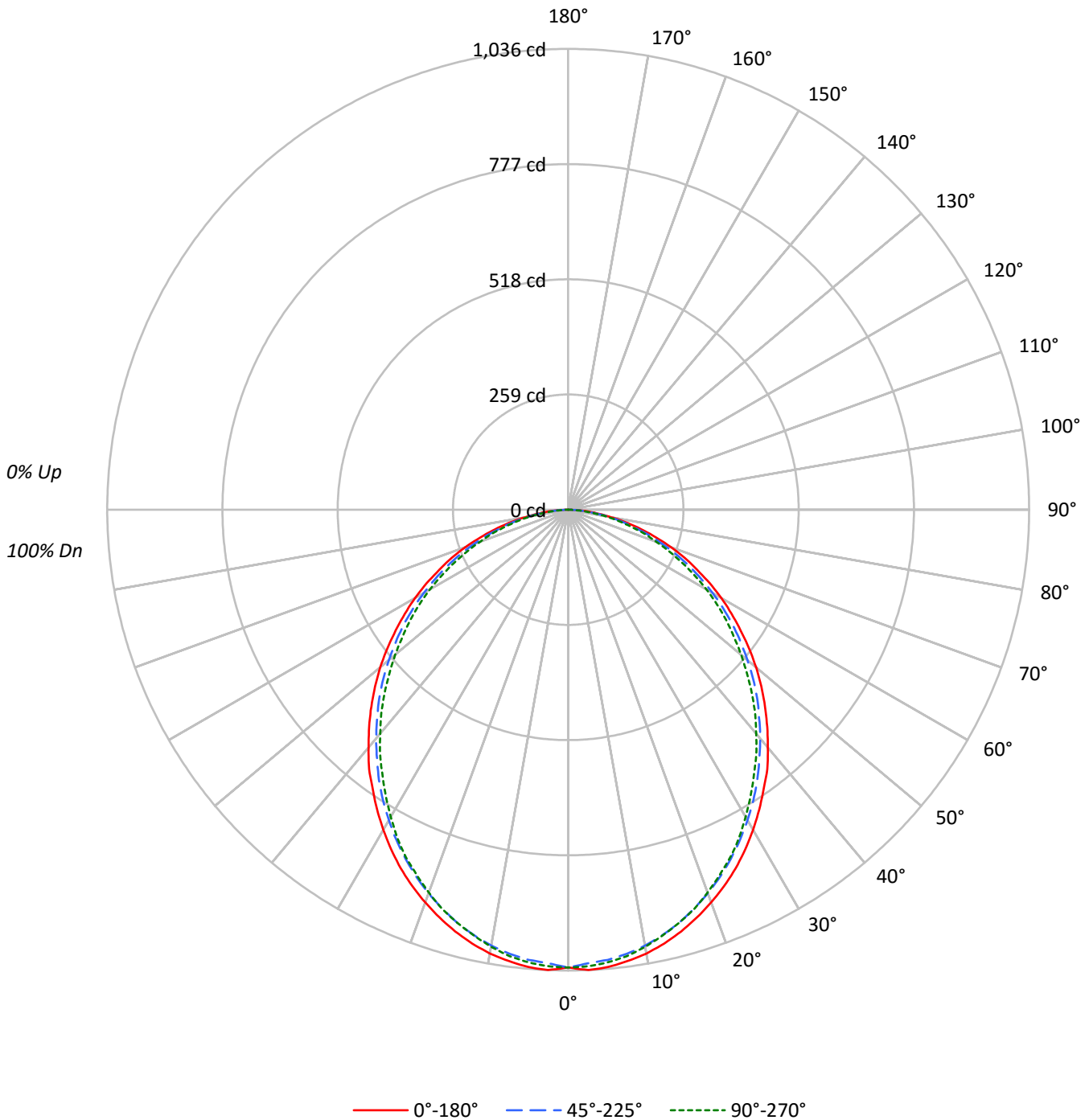
Input Watts (W): 31.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	97	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	75	80	76	73	71
3	91	81	73	66	88	79	72	66	76	70	64	73	68	63	71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	52
5	77	64	55	49	75	63	55	48	61	54	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	49	42	55	48	42	53	47	42	52	46	41	39
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	57	44	36	31	56	44	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°	30495	30495	30495
5°	30698	30216	30385
10°	30478	29933	30018
15°	30107	29494	29494
20°	29627	28933	28873
25°	29097	28286	28191
30°	28425	27576	27282
35°	27707	26810	26325
40°	27006	25973	25420
45°	26219	25179	24463
50°	25413	24228	23394
55°	24439	23308	22419
60°	23573	22216	21256
65°	22400	20998	19862
70°	21233	19501	18262
75°	19439	17687	16600
80°	16927	15630	14487
85°	14584	12001	10063



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	97.0	3.7
10°-20°	272.9	10.5
20°-30°	401.2	15.4
30°-40°	465.6	17.8
40°-50°	464.3	17.8
50°-60°	404.2	15.5
60°-70°	297.6	11.4
70°-80°	165.7	6.3
80°-90°	42.6	1.6
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°	771.0	29.5
0°-40°	1236.6	47.4
0°-60°	2105.2	80.6
0°-90°	2611.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2611.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1029	1029	1029	1029	1029	
5°	1032	1026	1016	1024	1022	98
15°	982	976	962	965	962	277
25°	890	880	865	865	862	410
35°	766	756	741	733	728	480
45°	626	615	601	588	584	483
55°	473	464	451	439	434	424
65°	320	313	300	287	283	317
75°	170	162	154	148	145	180
85°	43	40	35	30	30	50
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1029.2	1029.2	1029.2	1029.2	1029.2
2.5°	1035.9	1030.2	1020.6	1029.2	1027.3
5°	1032.1	1026.4	1015.9	1023.5	1021.6
7.5°	1023.5	1018.7	1007.3	1014.0	1012.1
10°	1013.0	1007.3	994.9	1000.6	997.7
12.5°	998.7	993.9	979.6	984.4	980.6
15°	981.5	975.8	961.5	965.3	961.5
17.5°	961.5	955.8	940.5	943.4	941.5
20°	939.6	931.9	917.6	919.5	915.7
22.5°	915.7	907.1	892.8	892.8	889.0
25°	890.0	879.5	865.2	865.2	862.3
27.5°	861.3	851.8	836.5	834.6	831.8
30°	830.8	821.3	806.0	802.2	797.4
32.5°	799.3	788.8	774.5	767.9	763.1
35°	766.0	756.4	741.2	732.6	727.8
37.5°	735.4	722.1	705.9	698.2	694.4
40°	698.2	686.8	671.5	661.0	657.2
42.5°	662.0	651.5	635.3	624.8	621.9
45°	625.7	615.2	600.9	588.5	583.8
47.5°	588.5	578.0	563.7	551.3	544.7
50°	551.3	540.8	525.6	513.2	507.5
52.5°	512.2	504.6	488.4	476.9	469.3
55°	473.1	464.5	451.2	438.8	434.0
57.5°	435.0	427.3	413.0	399.7	396.8
60°	397.8	390.1	374.9	363.4	358.7
62.5°	358.7	351.0	336.7	325.3	320.5
65°	319.5	312.9	299.5	287.1	283.3
67.5°	283.3	274.7	262.3	250.9	246.1
70°	245.1	235.6	225.1	215.6	210.8
72.5°	207.0	199.4	190.8	181.2	179.3
75°	169.8	162.2	154.5	147.8	145.0
77.5°	134.5	128.8	123.0	116.4	114.5
80°	99.2	95.4	91.6	86.8	84.9
82.5°	69.6	66.8	61.0	57.2	55.3
85°	42.9	40.1	35.3	30.5	29.6
87.5°	20.0	16.2	12.4	10.5	9.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)