

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: P243061

Luminaire Tested: **S121RDR-H490D930-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243061  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-62)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S121RDR-H490D930-X4F0-XX-UDD-F-W  
Description: DEFINE 1 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1192.8 lumens  
Efficiency: N/A  
Efficacy: 69.3 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 0.92 / 1.09  
Luminous Opening: Rectangular (W 0.09' x L: 3.88' x H: 0')  
CIE Type: Direct

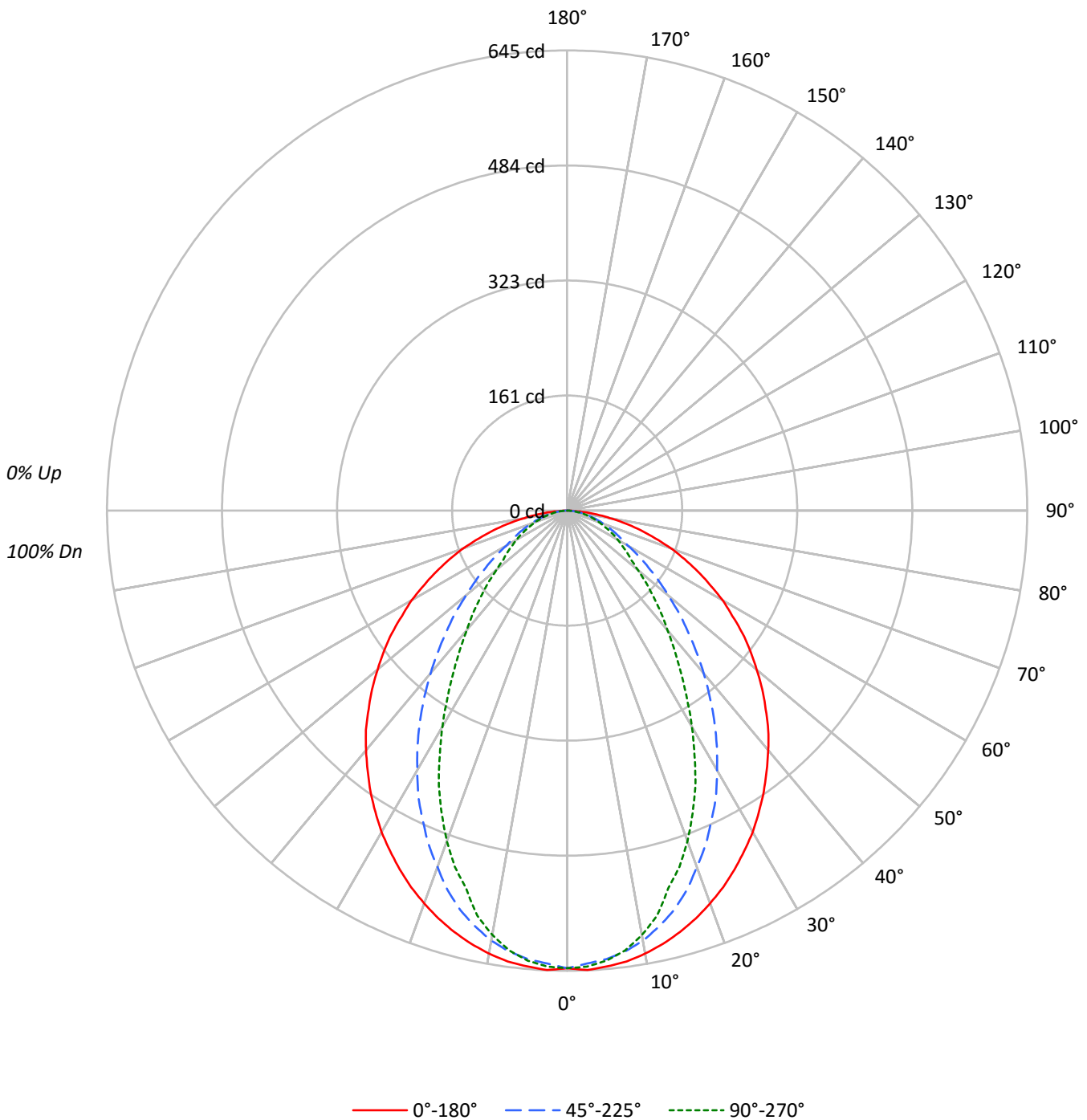
Input Watts (W): 17.2  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57
5	80	69	60	54	78	67	60	54	65	59	54	64	58	53	62	57	52	50
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42	41
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39	37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31

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

	0°	45°	90°
0°	19004	19004	19004
5°	19077	18771	18833
10°	18970	18413	18169
15°	18758	17773	16807
20°	18474	16762	15545
25°	18144	15657	13914
30°	17798	14376	11975
35°	17380	12996	10066
40°	16965	11522	8471
45°	16489	9998	7174
50°	15986	8518	5965
55°	15497	7186	5305
60°	14916	5831	4865
65°	14176	5223	4459
70°	13419	4713	4098
75°	12261	4236	3732
80°	10477	3703	3344
85°	8125	3128	2788



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.0	5.0
10°-20°	163.2	13.7
20°-30°	222.7	18.7
30°-40°	230.9	19.4
40°-50°	201.4	16.9
50°-60°	151.6	12.7
60°-70°	99.4	8.3
70°-80°	50.7	4.2
80°-90°	12.9	1.1
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°	446.0	37.4
0°-40°	676.8	56.7
0°-60°	1029.9	86.3
0°-90°	1192.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1192.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	641	641	641	641	641	
5°	641	638	631	635	633	61
15°	612	603	579	563	548	172
25°	555	532	479	439	426	256
35°	480	439	359	299	278	301
45°	394	336	239	185	171	304
55°	300	228	139	105	103	268
65°	202	126	74	66	64	200
75°	107	49	37	34	33	113
85°	24	10	9	8	8	29
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	641.4	641.4	641.4	641.4	641.4
2.5°	644.6	641.9	635.4	640.8	639.8
5°	641.4	638.1	631.1	634.9	633.2
7.5°	637.6	633.2	623.4	625.1	621.8
10°	630.5	625.1	612.0	608.8	603.9
12.5°	621.8	615.8	596.8	589.2	581.6
15°	611.5	602.8	579.4	563.1	547.9
17.5°	599.5	588.7	557.7	534.8	523.4
20°	585.9	571.8	531.6	505.0	493.0
22.5°	571.3	553.3	507.1	473.4	459.3
25°	555.0	532.1	478.9	438.6	425.6
27.5°	537.6	511.5	451.7	405.5	386.5
30°	520.2	487.6	420.2	368.5	350.0
32.5°	500.6	463.6	390.3	333.2	312.5
35°	480.5	439.2	359.3	298.9	278.3
37.5°	459.3	414.7	328.3	267.4	247.3
40°	438.6	388.1	297.9	237.0	219.0
42.5°	417.4	361.5	267.4	210.4	195.1
45°	393.5	336.5	238.6	185.3	171.2
47.5°	371.2	309.3	212.5	163.1	150.0
50°	346.8	282.6	184.8	142.4	129.4
52.5°	324.0	255.5	162.0	120.7	112.5
55°	300.0	228.3	139.1	105.4	102.7
57.5°	274.5	201.7	119.0	94.6	91.3
60°	251.7	176.1	98.4	84.8	82.1
62.5°	226.1	150.6	85.3	75.6	72.8
65°	202.2	126.1	74.5	65.8	63.6
67.5°	178.3	103.8	64.1	57.1	54.9
70°	154.9	82.6	54.4	48.9	47.3
72.5°	129.4	62.5	45.7	41.3	40.2
75°	107.1	48.9	37.0	33.7	32.6
77.5°	83.7	37.0	28.8	26.6	26.1
80°	61.4	26.6	21.7	20.1	19.6
82.5°	41.9	17.9	15.2	14.1	13.6
85°	23.9	9.8	9.2	8.2	8.2
87.5°	9.2	3.8	3.3	3.3	3.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)