

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: P243240

Luminaire Tested: **S122RDR-H865D935-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243240  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-63)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122RDR-H865D935-X4F0-XX-UDD-F-W  
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2464.2 lumens  
Efficiency: N/A  
Efficacy: 78.2 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

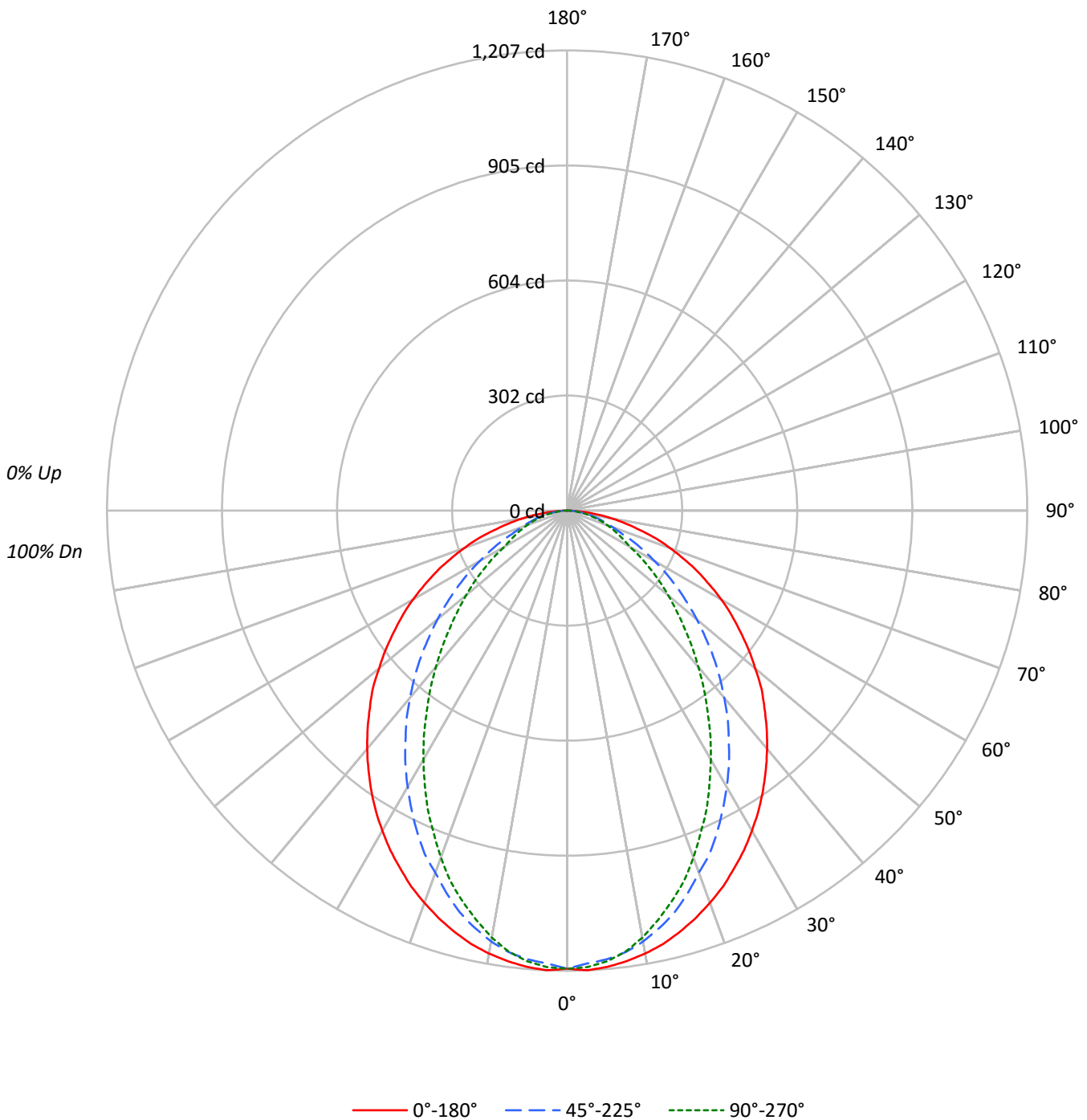
Input Watts (W): 31.5  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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					100			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86					86			
2	101	94	87	82	98	92	86	81	88	83	79	85	81	77	82	79	76	74					74			
3	93	83	76	70	90	82	75	69	79	73	68	76	71	67	74	69	66	64					64			
4	86	75	66	60	83	73	66	60	71	64	59	69	63	58	66	62	57	55					55			
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49					49			
6	74	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43					43			
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41	39					39			
8	64	51	43	38	62	51	43	37	49	42	37	48	42	37	47	41	37	35					35			
9	60	47	39	34	59	47	39	34	46	39	34	44	38	34	44	38	34	32					32			
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29					29			

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

	0°	45°	90°
0°	22888	22888	22888
5°	22975	22598	22698
10°	22819	22198	21997
15°	22549	21506	20915
20°	22192	20489	19628
25°	21767	19567	18171
30°	21319	18401	16577
35°	20828	17189	14921
40°	20287	15931	13303
45°	19716	14606	11702
50°	19078	13148	10262
55°	18421	11706	8847
60°	17813	10072	7227
65°	17010	8505	6684
70°	15995	7045	6237
75°	14572	6410	5726
80°	13075	5682	5123
85°	10884	4764	4524



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	112.5	4.6
10°-20°	308.4	12.5
20°-30°	432.7	17.6
30°-40°	471.3	19.1
40°-50°	433.2	17.6
50°-60°	339.9	13.8
60°-70°	221.8	9.0
70°-80°	114.7	4.7
80°-90°	29.7	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°	853.7	34.6
0°-40°	1325.0	53.8
0°-60°	2098.1	85.1
0°-90°	2464.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2464.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1202	1202	1202	1202	1202	
5°	1202	1195	1182	1190	1187	114
15°	1144	1130	1091	1069	1061	322
25°	1036	999	931	885	865	477
35°	896	837	739	671	642	560
45°	732	657	542	463	434	565
55°	555	472	352	286	266	497
65°	377	286	189	153	148	373
75°	198	123	87	80	78	212
85°	50	24	22	21	21	57
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1201.6	1201.6	1201.6	1201.6	1201.6
2.5°	1206.8	1201.6	1189.1	1200.5	1198.5
5°	1201.6	1195.3	1181.9	1190.2	1187.1
7.5°	1192.2	1186.0	1168.4	1172.5	1167.4
10°	1179.8	1171.5	1147.7	1143.5	1137.3
12.5°	1164.2	1152.8	1120.7	1108.3	1100.0
15°	1143.5	1130.0	1090.6	1068.9	1060.6
17.5°	1120.7	1101.0	1052.3	1027.4	1019.1
20°	1094.8	1072.0	1010.8	984.9	968.3
22.5°	1067.8	1038.8	975.6	935.1	915.4
25°	1035.7	999.4	931.0	885.4	864.6
27.5°	1004.6	962.1	884.3	831.5	808.6
30°	969.3	922.7	836.6	775.5	753.7
32.5°	934.1	880.2	790.0	723.6	698.8
35°	895.7	836.6	739.2	670.8	641.7
37.5°	856.3	795.2	692.5	616.9	588.9
40°	815.9	747.5	640.7	561.9	535.0
42.5°	774.4	705.0	592.0	511.1	485.2
45°	731.9	657.3	542.2	463.4	434.4
47.5°	691.5	610.6	491.4	416.8	388.8
50°	643.8	564.0	443.7	368.0	346.3
52.5°	600.3	517.3	397.1	324.5	305.8
55°	554.7	471.7	352.5	286.1	266.4
57.5°	512.1	424.0	307.9	247.8	229.1
60°	467.6	378.4	264.4	209.4	189.7
62.5°	420.9	331.8	226.0	174.2	168.0
65°	377.4	286.1	188.7	153.4	148.3
67.5°	330.7	243.6	150.3	134.8	129.6
70°	287.2	202.2	126.5	115.1	112.0
72.5°	244.7	162.8	106.8	97.5	94.3
75°	198.0	123.4	87.1	79.8	77.8
77.5°	157.6	87.1	69.5	64.3	62.2
80°	119.2	63.2	51.8	48.7	46.7
82.5°	81.9	42.5	36.3	34.2	33.2
85°	49.8	23.8	21.8	20.7	20.7
87.5°	19.7	9.3	9.3	8.3	8.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)