

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: P243048

Luminaire Tested: **S121RDR-H685D830-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243048
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-H685D830-X4F0-XX-UDD-F-W
Description: DEFINE 1 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1931.2 lumens
Efficiency: N/A
Efficacy: 81.8 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

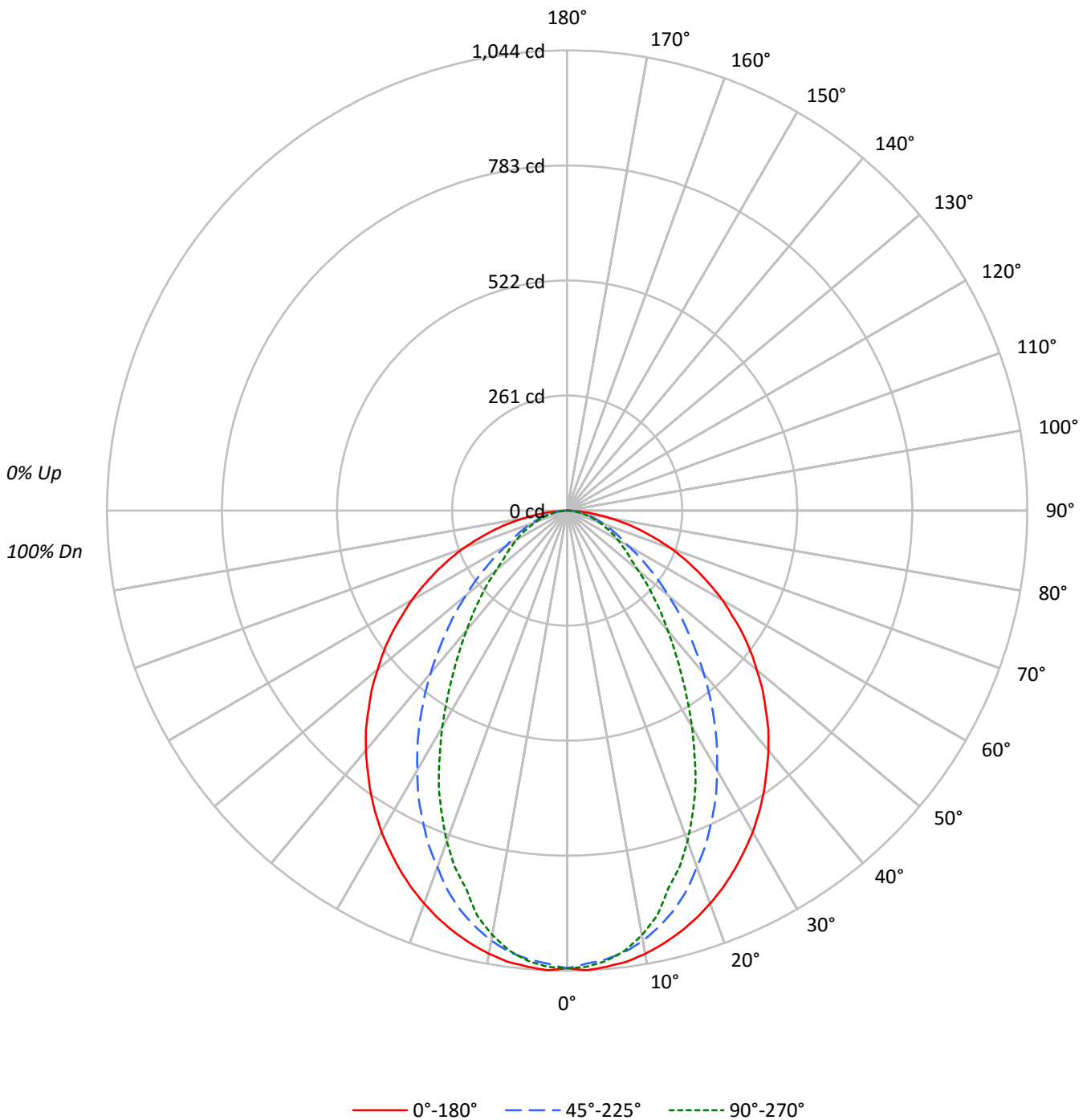
Input Watts (W): 23.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	30767	30767	30767
5°	30885	30388	30492
10°	30713	29813	29416
15°	30368	28776	27212
20°	29914	27139	25168
25°	29374	25347	22529
30°	28815	23275	19389
35°	28138	21041	16299
40°	27470	18655	13719
45°	26696	16187	11615
50°	25883	13792	9652
55°	25095	11639	8591
60°	24148	9440	7876
65°	22954	8455	7221
70°	21727	7624	6636
75°	19851	6846	6045
80°	16961	6006	5409
85°	13157	5099	4488



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.2	5.0
10°-20°	264.2	13.7
20°-30°	360.6	18.7
30°-40°	373.8	19.4
40°-50°	326.1	16.9
50°-60°	245.4	12.7
60°-70°	160.9	8.3
70°-80°	82.0	4.2
80°-90°	20.8	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°	722.0	37.4
0°-40°	1095.8	56.7
0°-60°	1667.4	86.3
0°-90°	1931.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1931.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1038	1038	1038	1038	1038	
5°	1038	1033	1022	1028	1025	99
15°	990	976	938	912	887	279
25°	898	862	775	710	689	414
35°	778	711	582	484	451	487
45°	637	545	386	300	277	492
55°	486	370	225	171	166	434
65°	327	204	121	106	103	324
75°	173	79	60	55	53	183
85°	39	16	15	13	13	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1038.4	1038.4	1038.4	1038.4	1038.4
2.5°	1043.7	1039.3	1028.8	1037.6	1035.8
5°	1038.4	1033.2	1021.7	1027.9	1025.2
7.5°	1032.3	1025.2	1009.4	1012.0	1006.8
10°	1020.8	1012.0	990.9	985.6	977.7
12.5°	1006.8	997.1	966.3	954.0	941.6
15°	990.0	976.0	938.1	911.7	887.1
17.5°	970.7	953.1	902.9	866.0	847.5
20°	948.7	925.8	860.7	817.6	798.2
22.5°	924.9	895.9	821.1	766.5	743.6
25°	898.5	861.6	775.3	710.2	689.1
27.5°	870.4	828.1	731.3	656.5	625.7
30°	842.2	789.4	680.3	596.7	566.7
32.5°	810.5	750.7	631.9	539.5	506.0
35°	777.9	711.1	581.7	484.0	450.6
37.5°	743.6	671.5	531.5	433.0	400.4
40°	710.2	628.3	482.3	383.7	354.7
42.5°	675.9	585.2	433.0	340.6	315.9
45°	637.1	544.7	386.3	300.1	277.2
47.5°	601.1	500.7	344.1	264.0	242.9
50°	561.5	457.6	299.2	230.6	209.4
52.5°	524.5	413.6	262.3	195.4	182.2
55°	485.8	369.6	225.3	170.7	166.3
57.5°	444.4	326.5	192.7	153.1	147.8
60°	407.5	285.1	159.3	137.3	132.9
62.5°	366.1	243.8	138.2	122.3	117.9
65°	327.4	204.2	120.6	106.5	103.0
67.5°	288.7	168.1	103.8	92.4	88.9
70°	250.8	133.8	88.0	79.2	76.6
72.5°	209.4	101.2	73.9	66.9	65.1
75°	173.4	79.2	59.8	54.6	52.8
77.5°	135.5	59.8	46.6	43.1	42.2
80°	99.4	43.1	35.2	32.6	31.7
82.5°	67.8	29.0	24.6	22.9	22.0
85°	38.7	15.8	15.0	13.2	13.2
87.5°	15.0	6.2	5.3	5.3	5.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)