

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: P242258

Luminaire Tested: **S122DR-S865D830-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242258  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122DR-S865D830-X4F0-XX-UDD-F-W  
Description: DEFINE 2 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3180.3 lumens  
Efficiency: N/A  
Efficacy: 91.4 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

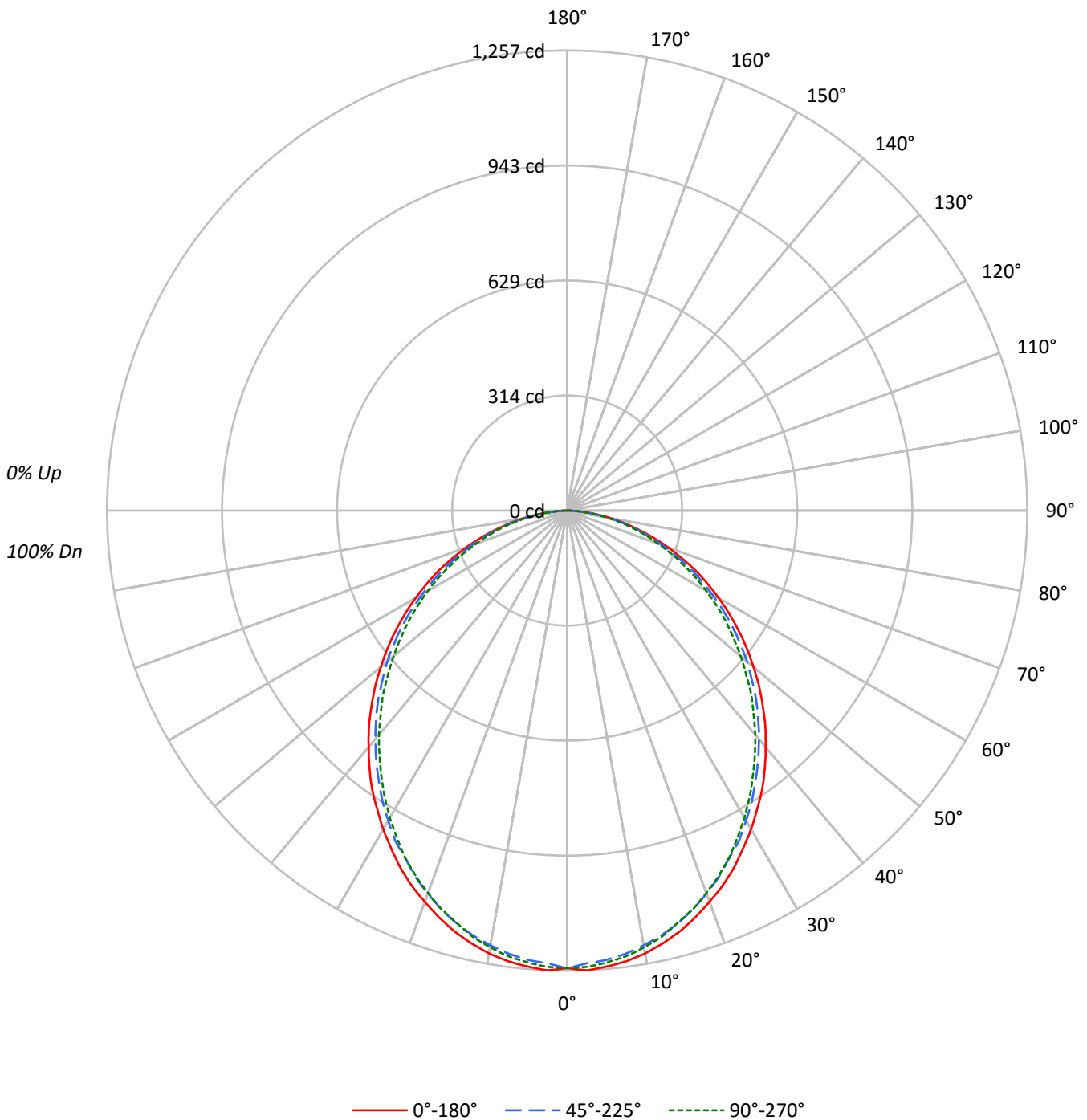
Input Watts (W): 34.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84					84			
2	99	91	85	79	97	89	83	78	86	81	76	83	78	74	80	76	73	71					71			
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	71	66	62	60					60			
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51					51			
5	77	64	55	49	75	63	55	48	61	53	48	59	52	47	57	51	47	45					45			
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39					39			
7	66	52	44	38	64	52	43	38	50	43	37	49	42	37	47	41	37	35					35			
8	61	48	40	34	60	47	39	34	46	39	33	45	38	33	44	38	33	31					31			
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28					28			
10	54	41	33	28	53	40	33	28	39	32	27	38	32	27	37	32	27	26					26			

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

	0°	45°	90°
0°	23812	23812	23812
5°	23902	23556	23694
10°	23759	23318	23434
15°	23466	23015	22991
20°	23049	22561	22536
25°	22635	22003	22003
30°	22102	21493	21308
35°	21604	20879	20572
40°	20981	20263	19875
45°	20365	19654	19169
50°	19697	19021	18343
55°	18999	18281	17604
60°	18225	17402	16758
65°	17388	16523	15766
70°	16334	15466	14725
75°	14859	14241	13887
80°	13185	12790	12132
85°	10774	10250	9201



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	117.6	3.7
10°-20°	331.0	10.4
20°-30°	486.5	15.3
30°-40°	565.0	17.8
40°-50°	564.3	17.7
50°-60°	492.1	15.5
60°-70°	363.7	11.4
70°-80°	205.8	6.5
80°-90°	54.3	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°	935.1	29.4
0°-40°	1500.2	47.2
0°-60°	2556.5	80.4
0°-90°	3180.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3180.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1250	1250	1250	1250	1250	
5°	1250	1245	1232	1242	1239	119
15°	1190	1183	1167	1172	1166	335
25°	1077	1067	1047	1049	1047	496
35°	929	917	898	891	885	580
45°	756	748	730	716	712	583
55°	572	565	550	536	530	512
65°	386	379	367	356	350	382
75°	202	200	194	186	189	216
85°	49	48	47	43	42	58
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1250.1	1250.1	1250.1	1250.1	1250.1
2.5°	1257.3	1251.3	1238.0	1250.1	1247.7
5°	1250.1	1245.2	1232.0	1241.6	1239.2
7.5°	1241.6	1234.4	1221.2	1230.8	1228.4
10°	1228.4	1220.0	1205.6	1215.2	1211.6
12.5°	1210.4	1203.2	1188.8	1194.8	1192.4
15°	1190.0	1182.7	1167.1	1171.9	1165.9
17.5°	1164.7	1157.5	1141.9	1147.9	1141.9
20°	1137.1	1129.9	1113.0	1116.6	1111.8
22.5°	1109.4	1098.6	1083.0	1083.0	1080.6
25°	1077.0	1067.4	1046.9	1049.3	1046.9
27.5°	1040.9	1032.5	1016.9	1013.3	1007.3
30°	1004.9	995.2	977.2	973.6	968.8
32.5°	966.4	959.2	939.9	932.7	927.9
35°	929.1	917.1	897.9	890.7	884.7
37.5°	887.1	876.2	857.0	848.6	842.6
40°	843.8	834.2	814.9	804.1	799.3
42.5°	801.7	792.1	772.9	760.9	753.6
45°	756.0	747.6	729.6	716.4	711.6
47.5°	711.6	703.2	683.9	670.7	663.5
50°	664.7	658.7	641.9	625.0	619.0
52.5°	619.0	610.6	595.0	581.8	573.3
55°	572.1	564.9	550.5	536.1	530.1
57.5°	525.3	519.3	503.6	489.2	484.4
60°	478.4	473.6	456.8	443.5	439.9
62.5°	432.7	424.3	412.3	400.3	395.4
65°	385.8	378.6	366.6	355.8	349.8
67.5°	337.8	331.7	320.9	312.5	307.7
70°	293.3	288.5	277.7	269.2	264.4
72.5°	247.6	242.8	236.8	228.4	224.8
75°	201.9	199.5	193.5	186.3	188.7
77.5°	161.1	156.3	153.9	150.2	146.6
80°	120.2	119.0	116.6	113.0	110.6
82.5°	81.7	81.7	80.5	75.7	75.7
85°	49.3	48.1	46.9	43.3	42.1
87.5°	21.6	19.2	16.8	13.2	12.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)